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**FOREIGN MARKETS  
FOR AUTOMOTIVE REPLACEMENT  
PARTS, ACCESSORIES, AND  
SERVICE STATION EQUIPMENT**

Compiled by  
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Automotive Division

Based on Reports of Foreign Service Officers of the  
Department of State and Department of Commerce



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## FOREWORD

The steady development of motor transportation throughout the world, especially during the last decade, has placed on the roads of the United States and foreign countries more than 35,800,000 passenger cars, trucks, and busses. The necessity of maintaining those vehicles in good operating condition has created a rapidly developing demand for all types of automotive equipment. The striking growth and increasing economic importance of our equipment industry has been accompanied by a thriving export trade, which has been stimulated by the increasing number of American and foreign automobiles operated abroad. The exact importance of this trade is indicated by the fact that our exports of equipment amounted to \$61,026,994 in 1930, or 20 per cent of our total automotive exports during that year.

The world is building more highways and has definitely accepted the idea of motor transportation. A steady increase in the number of automobiles abroad is inevitable, and with this increase will come a corresponding growth of the demand for automotive equipment.

This trade displays certain unique characteristics which emphasize its importance and reveal the future opportunities for its expansion. In the first place, it is less susceptible to the retarding effects of economic depressions than the trade in new vehicles, and this tendency, which has been apparent during the depression of 1930-31, gives a stability to the trade which enhances its economic value. Again, the promising opportunities abroad for the development of motor transportation indicate the prospects for the further growth of the demand for American equipment. This is especially significant in the case of replacement parts and garage and service-station equipment. Because of unsatisfactory operating conditions in many countries, automobiles are subjected to more strenuous usage than in the United States, and the need of replacement parts and servicing equipment is correspondingly greater. In a great many foreign countries automobile service facilities are still decidedly inadequate, but interest in this important aspect of the trade is increasing, enforced by the growing demands of the increasing number of car owners. The United States has been preeminent in the development of service appliances and methods, and this fact has established a valuable prestige abroad for our equipment. Prospects for the expansion of this trade appear to be particularly bright.

Never before has sound and profitable exporting been so dependent upon a comprehensive knowledge of conditions in foreign markets and the concentration of effort in those territories which offer the most promising opportunities. In the face of growing competition, American exporters have especial need of access to current and official reports of conditions in the markets in which they are interested.

The following survey of the foreign markets for automotive equipment represents an effort on the part of the Automotive Division of the Bureau of Foreign and Domestic Commerce to provide the first comprehensive guidebook of basic information on foreign markets for equipment. This survey was designed to disclose current conditions and trends as well as the fundamental market data which the exporter needs in the preparation of a sound foreign-sales program. It is based upon reports received from officers of the Departments of State and Commerce in 110 countries, who were guided in their market investigations by a questionnaire prepared with the collaboration of the Motor and Equipment Association, the National Standard Parts Association, automotive trade-paper executives, and a number of individual manufacturers and exporters.

FREDERICK M. FEIKER, *Director,*  
*Bureau of Foreign and Domestic Commerce.*

SEPTEMBER, 1931.

#### NOTE

This survey contains reports on all markets which had been received from the field officers at the time of going to press. Reports from some of the lesser markets, when received, will be published as a supplement to the Automotive World News, released weekly by the Automotive Division.

# FOREIGN MARKETS FOR AUTOMOTIVE REPLACEMENT PARTS, ACCESSORIES, AND SERVICE-STATION EQUIPMENT

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## INTRODUCTION

A survey of the world generally as a vast market for American automotive equipment discloses an important and steadily expanding demand for replacement parts; a generally waning demand for certain types of accessories but reassuring evidences of opportunities for other types; and an exceedingly promising outlook for sales of service appliances.

As the following reports on the separate foreign markets are studied, it becomes clearly evident that certain trends and developments are taking place in this trade which must be appreciated in their full significance by American exporters. Increasing industrialization of many countries has stimulated local manufacture of certain types of equipment which formerly were largely imported from the United States. Credit policies of foreign manufacturers have exercised a definite influence upon the trade. As the motorization of foreign countries has increased, local preferences have crystallized or altered with a consequent shift in the trends of demand. Distribution problems and practices have developed which require the most careful attention by the exporter. Regulations have been enacted which restrict or alter the demand for certain types of equipment.

The export valuation of American replacement parts, accessories, and garage, and service-station equipment amounted to \$61,026,994, or 20 per cent of our total automotive shipments abroad, in 1930, an increase of more than \$29,000,000 over the year 1924, the earliest period in which the miscellaneous automotive group was broken down into the three major classifications mentioned above. Comparison of these figures illustrates the steadily increasing importance of this great branch of the automobile industry, and the impressive development of the foreign trade in the countless products essential or useful to the operation of motor vehicles.

Prompt and efficient service is, in many instances, of even greater importance to the foreign operator of an automobile than to the American owner because of the unfavorable operating conditions which still exist in a great many foreign countries. More than 8,000,000 motor vehicles are now registered outside the United States, of which 87.8 per cent are of American origin or type. All of these offer potential demands for a certain amount of service facilities and replacement parts to keep them in operation. Consequently, the past few years have witnessed a growing recognition of the need of servicing accommodations abroad. Increasing purchases, not only

## 2 AUTOMOTIVE PARTS, ACCESSORIES, AND SERVICE EQUIPMENT

of replacement parts but also of equipment used in service operations, have resulted. The predominance of American cars abroad, the quality of American equipment, and the recognized leadership of the United States in the development of equipment and practices have enabled our products to become strongly entrenched in most foreign markets.

In the absence of unfavorable economic conditions, when passenger car and truck sales are steadily growing, there is a corresponding demand for service equipment. The world trade depression, which commenced in late 1929, demonstrated that in many countries decreased purchases of new vehicles were partially offset by an equal or even greater demand for this equipment owing to the increased service requirements of thousands of owners throughout the world who were keeping their vehicles in operation much longer than they would have done under normal conditions.

While service requirements were reduced to the limit of actual necessity, a certain amount of attention to the vehicle is required whether economic conditions are good or bad. Consequently American export trade in automotive equipment has suffered less during the depression than our exports of cars and trucks.

Improved conditions and the recovery of foreign buying power will unquestionably release the accumulated demands for service which, with the normal requirements resulting from the sales of new automobiles abroad, should hold a reassuring promise of further expansion.

### REPLACEMENT PARTS

Replacement parts accounted for \$47,640,447 or 78 per cent of the exports in the equipment group in 1930; in 1924 the total was slightly under \$22,000,000. The oversea demand for American replacement parts is, of course, largely accounted for by the large percentage of American cars registered abroad although the demand for parts for use in foreign automobiles is by no means unimportant. Purchases of parts are also made by certain foreign car and truck manufacturers for use in assembling their own products.

Canada has long been the leading market for replacement parts manufactured in the United States; the actual export valuation for the years 1928-1930 being practically double the purchases of the second best market. Canada has the highest automobile registration outside of the United States, with the exception of Great Britain and France, and its proximity to the American automotive centers, together with the recognized preference of the public for articles of American design, have afforded an excellent outlet for parts made in the United States. The only competition to American goods is from domestic manufacturers, and their activities are constantly on the increase.

Argentina and Great Britain were the next most important markets for American replacement parts, the demands of the former rising from \$1,883,041 in 1924 to \$3,449,899 in 1930, while the purchases of Great Britain increased from \$2,438,193 to \$3,102,899. American parts supply more than 85 per cent of the present demand in Argentina, but European manufacturers are showing greater activity in this market by offering goods at lower prices and ex-

tending more liberal credit terms than is the practice of American houses. American participation in the British market is declining in the face of increasing competition from domestic and European manufacturers.

#### ACCESSORIES

Accessory shipments during 1930 amounted to \$5,542,867, or 9 per cent of the group total. The ratio of accessory shipments to total exports of the equipment group has been steadily downward during the past five years, a condition undoubtedly accounted for by the increasing number of items now included as standard equipment by the United States manufacturers of motor cars. This trend, however, is to some extent offset by the fact that the motoring public in many foreign countries is receptive to new ideas in accessories. The survey reveals the existence abroad of many definite opportunities, particularly for new and novel specialty items. Familiarity with those preferences will enable the American accessory manufacturer to have a clearer view of his foreign market prospects.

As in the case of replacement parts, Canada has maintained the position of chief purchaser of American accessories, in 1930 accounting for 42 per cent of the total exports under this classification. There is practically no outside competition to American accessories in this market, but domestic participation is steadily growing and will eventually affect the market for items made in the United States. Argentina and Great Britain are also the next best markets for American accessories, but in both countries the domestic output is gaining strength and now supplies a large share of the local demand.

Another reason for the downward trend in accessory exports is the decided activity on the part of European manufacturers in introducing items at lower cost and through the extension of longer credit terms than can be secured from producers of similar articles in the United States, a tendency which is also evident in the trade in replacement parts. Mention of this condition is made at frequent intervals throughout this survey and it will be appreciated that too much attention can not be given to local conditions and merchandising methods if American manufacturers and exporters expect to increase or retain their share of this business abroad.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Shipments of garage and service-station equipment reached a new high export total in 1930, amounting to \$7,843,650 and representing 13 per cent of the group valuation; the 1924 total was \$2,841,453. Since 1924 the exportation of service appliances has reflected a consistently increasing demand, which has risen to such a degree that not even the decline in world purchasing power during 1930 could force purchases down to former levels. This marked stability of the trade points toward an important and steady future expansion.

Great Britain, since 1924, has been the leading purchaser of American garage and service-station equipment. Since 1927, however, the United States has shipped a steadily declining volume to this country, the valuation in 1930 being less than one-half of the total recorded during 1927. An explanation for this condition is found

in the fact that domestic production in Great Britain is heavier than at any previous time and is supplying an increasing share of the local demand. Canada, our chief market for replacement parts and accessories, occupies the position of our second most important outlet for service appliances. The relative growth of the Canadian market, as compared with that of Great Britain, has been much greater, American exports of nearly \$50,000 in 1924 having increased to more than \$800,000 in 1930.

Argentina has shown consistent annual increases, occupying the third position of importance in 1930 and reaching the greatest volume in its purchases of American servicing equipment ever recorded. Manufacturers in the United States must necessarily keep in close touch with conditions in both Canada and Argentina, for there is already heavy domestic production in the former country and a steadily increasing output in the latter.

American garage and service-station equipment is well known and favorably regarded throughout the world and is generally recognized as being indicative of what is the most modern and best suited equipment. However, domestic participation is increasing in the automotive producing centers of Europe, as well as in Argentina, Chile, Japan, and Australia. There is but a small amount of competition to American equipment in any of these countries from outside sources, but local manufacturing activities are steadily increasing and will offer sharp opposition. This survey describes the extent of garage and service-station facilities in foreign countries, and the factors which govern the development of the trade in service appliances.

#### MARKETING PRACTICES

The increasingly important question of competition from local and foreign concerns is foremost among the problems encountered in marketing American equipment abroad. In the earlier years of our oversea automotive trade, the sale of American products was less affected by this competition, but the development of the automotive industry in several foreign countries has altered this condition considerably. The proximity of Germany, and to a less extent, France, Sweden, England, and Italy to the markets of Europe, Africa, and the Near East has created certain advantages in close personal contact and the ability to promise quick deliveries. Manufacturers in these countries have, of course, also been able to establish themselves in a stronger position in their own markets.

While American equipment has always sold on a quality basis, the low prices quoted generally by European manufacturers have aided them in those countries where the trade is largely governed by the price factor. In many other countries which do not possess an automotive industry of any consequence, there has developed the production of many types of equipment which require less technical skill or expenditure of capital. The assistance given to the small companies in this field provides another obstacle to the trade in imported products.

The problems of distribution differ in importance among the various countries. In some, there is a definite trend toward the automobile dealer; in others the exclusive distributor functioning as an import-

ing wholesaler is the logical distributing outlet. In some markets the manufacturer's representative or indent agent operating on a commission basis occupies a position of definite importance in the trade; in others there is much opposition from retailers to the practice of selling on commission. To cite only one of many examples of this tendency, in Greece great care should be exercised before placing a line with a commission agent because of the resentment created in the Greek trade by agents who have used their lines to compete actively with the large jobbing houses. In countries where the production of automobiles is important, the representative of a line of parts must have close contact with the automobile manufacturers. In other markets where service facilities have improved slowly, the ability of a representative to do the necessary educational work is essential to the successful merchandising of garage and service-station equipment.

Several reports refer to the practice of American exporters of appointing one general agent to cover a number of separate countries, differing widely in marketing methods and preferences. For example, resentment is frequently expressed in Scandinavian countries regarding the appointment of a representative in a neighboring country or in western Europe to cover those markets.

American companies should carefully investigate the advisability of appointing separate representatives in each marketing region where the trade opportunities and local sentiment favor such action. The objection of buyers to obtaining their requirements from agents of another nationality located in a foreign country is often based upon a deeply rooted feeling of nationalism and, for that reason, is strong enough to warrant consideration.

An almost universal characteristic of the credit situation in the equipment trade in many countries is the practice of granting exceedingly liberal terms by European manufacturers, who often sell on open account or on terms of five or six months or longer. Notwithstanding the quality of the product, this practice has unquestionably resulted in increasing the sales of European lines in many markets. American manufacturers have generally preferred to follow a more rigid credit policy and to minimize their risks. The soundness of that policy is obvious, but it is important to realize fully the extent to which growing foreign competition has resulted from an extension of liberal terms and to consider carefully the importance of this question in the future.

These are some of the problems with which this world survey is concerned. Each report has dealt with them in the light of their importance. The reports also present certain peculiar characteristics of the separate markets which are of definite trade importance. For example, the report on Peru mentions the prevalence of petty thievery and the consequent demand for certain types of accessories. It refers also to the potential market for windshield wipers in this country of sparse rainfall, but where, in certain sections, heavy fogs are common. In Venezuela and other countries a strong demand is found for bulb horns which, with electric horns, are required by law. In Austria, an almost untouched field for a certain type of high-pressure grease gun is reported. In Czechoslovakia and other countries direction indicators are in good demand. In Estonia, importers

dislike the practice of some American firms of sending bulky advertising displays which are subject to a high duty. In Belgium, better advertising of American replacement parts is needed. In Norway, a growing market for car heaters is found. The report on Switzerland warns that multiple-tone horns are not permitted, as their sound is confused with that of horns on vehicles of the Alpine postal busses, which have the inside right of way on all mountain roads. In this country also, rear-view mirrors, bulb horns, and direction indicators are required in some cantons. In Italy, although prospects for imported automotive products are not promising, good openings for certain classes of equipment are reported.

These are examples of one type of information which is brought out in the following study. While possibly of less importance than the more detailed observations on the types of equipment in demand, competition, distribution, and other subjects of essential market importance, they have nevertheless a definite practical value to American exporters of automotive products. Knowledge of them may enable sales efforts to be applied in the right direction and costly mistakes to be avoided.

This study provides abundant evidence of the promising opportunities which exist for further expansion of our foreign trade in automotive equipment. The world is rapidly accepting the idea of motor transportation. More highways are being built. In some countries the demand for replacement parts and service is stimulated by the lack of good roads, but an even greater stimulus will be provided by the increasing number of vehicles which will be sold when better highways are built.

It would be hazardous, however, to ignore the fact that the success of American exporters in this future world trade will probably be more dependent than ever before upon painstaking study of foreign-market conditions and the willingness to meet the changes which are manifesting themselves. In fact, a certain flexibility in the foreign marketing policy of manufacturers, which will enable them to adapt their sales methods to the peculiar and changing characteristics of each market, will enhance the good reputation of American equipment lines abroad and strengthen their competitive position.

Knowledge of the peculiar characteristics of each market, ability to adapt merchandising policies to those conditions, the proper appraisal of opportunities presented in each country so as to concentrate sales efforts in the most profitable channels, and the selection of the best distribution facilities—these are essential requirements for the American manufacturer who foresees and is determined to obtain his share of the foreign demand for automotive equipment.

This survey contains separate reports from 110 foreign countries. The material has been so arranged as to facilitate use of the study as a reference source and also for its use by export managers in connection with the planning of foreign-sales programs.



## INTRODUCTION

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## LEADING EXPORT MARKETS

## UNITED STATES EXPORTS OF REPLACEMENT PARTS

Country of destination	1926	1927	1928	1929	1930
Canada.....	\$3,604,024	\$4,919,754	\$7,409,652	\$11,249,270	\$7,736,318
Argentina.....	2,889,979	3,219,517	4,257,068	6,033,840	3,449,899
United Kingdom.....	3,079,867	3,455,190	4,985,308	4,175,442	3,102,615
Belgium.....	945,989	1,225,341	4,410,131	2,792,726	2,251,909
France.....	735,001	1,027,450	2,141,626	2,482,135	1,962,163
Australia.....	2,897,654	3,435,393	3,345,959	3,497,098	1,924,809
Germany.....	983,070	5,444,656	5,455,544	4,361,189	1,644,685
Japan.....	2,095,484	2,481,227	3,896,832	2,827,030	1,443,705
Soviet Russia in Europe.....	23,396	403,713	310,817	898,042	1,586,490
British India.....	798,063	1,282,898	1,808,443	2,154,526	1,504,948
Denmark.....	964,845	2,126,001	1,761,485	1,760,442	1,467,990
Union of South Africa.....	1,082,837	1,268,613	1,384,670	1,869,770	1,371,839
Mexico.....	1,608,452	977,314	960,529	1,029,672	1,159,631
Sweden.....	673,194	1,017,625	974,491	1,262,343	1,137,814
Brazil.....	2,058,676	2,385,517	3,231,272	3,519,474	1,008,360
Spain.....	660,291	793,412	1,419,673	2,426,897	969,810
Chile.....	844,645	678,774	787,647	1,272,311	891,651
New Zealand.....	880,819	748,946	747,268	1,069,336	877,067
Philippine Islands.....	584,262	576,521	745,869	979,277	814,895
Java and Malaya.....	272,129	595,997	873,585	1,095,094	762,094
Other countries.....	8,437,439	11,083,560	13,625,120	20,605,587	10,871,876
Total.....	36,074,786	50,177,408	64,252,976	77,400,267	47,640,477

<sup>1</sup> Figures cover all British South Africa.

## UNITED STATES EXPORTS OF AUTOMOBILE ACCESSORIES

Country of destination	1926	1927	1928	1929	1930
Canada.....	\$2,611,024	\$2,480,685	\$4,127,136	\$4,136,436	\$2,331,376
Argentina.....	475,608	424,743	622,507	679,422	392,411
United Kingdom.....	245,835	250,139	189,044	228,282	215,823
New Zealand.....	231,728	181,749	177,778	267,687	190,864
Australia.....	949,990	695,598	663,444	546,765	145,948
Mexico.....	322,997	177,231	192,085	162,633	134,581
Union of South Africa.....	1,297,771	1,209,751	139,662	175,412	119,917
Italy.....	402,145	189,576	400,078	275,296	119,364
Venezuela.....	106,696	105,069	66,287	116,476	106,997
Spain.....	85,250	72,083	82,237	82,704	106,432
Germany.....	149,557	281,764	262,272	170,065	98,502
Sweden.....	88,556	86,912	77,049	73,147	98,237
Japan.....	226,281	224,032	180,047	239,675	94,530
Belgium.....	77,137	62,950	59,244	48,681	94,317
Soviet Russia in Europe.....	2,211	31,595	14,033	18,916	92,007
Chile.....	115,809	100,053	86,242	122,326	91,702
Brazil.....	629,368	381,025	334,709	356,628	87,406
British India.....	197,945	172,771	153,263	166,163	83,602
Denmark.....	114,696	104,568	94,462	70,079	74,817
Philippine Islands.....	114,468	120,469	83,178	73,258	65,642
Other countries.....	1,834,628	1,540,795	1,416,583	1,395,542	800,333
Total.....	9,279,096	7,873,568	9,281,358	9,405,623	5,542,867

<sup>1</sup> Figures cover all British South Africa.

## 8 AUTOMOTIVE PARTS, ACCESSORIES, AND SERVICE EQUIPMENT

### Leading Export Markets—Continued

#### UNITED STATES EXPORTS OF AUTOMOBILE SERVICE APPLIANCES

Country of destination	1926	1927	1928	1929	1930 <sup>1</sup>
United Kingdom.....	\$2,168,023	\$2,990,106	\$ 1,802,728	\$1,394,753	\$1,255,340
Canada.....	475,044	430,469	902,715	1,090,977	808,531
Argentina.....	396,113	421,345	615,484	500,077	623,512
Soviet Russia in Europe.....	58,458	73,631	74,552	198,890	517,808
Brazil.....	222,803	482,281	685,776	882,512	408,219
Union of South Africa.....	* 138,264	* 209,751	169,605	145,333	365,665
British India.....	40,539	172,771	59,712	68,264	261,661
Chile.....	56,759	100,053	62,665	130,343	212,200
France.....	648,863	213,520	104,509	242,382	211,782
Italy.....	534,891	222,777	330,454	335,609	210,769
Mexico.....	63,069	55,551	95,744	104,915	205,093
New Zealand.....	247,212	79,105	336,665	173,539	178,858
Germany.....	73,395	173,700	152,003	224,317	176,228
Australia.....	439,759	201,947	434,673	298,886	150,164
Uruguay.....	48,849	103,233	106,144	152,695	139,048
Netherlands.....	155,808	125,130	115,178	86,511	119,523
Philippine Islands.....	19,533	43,931	39,071	41,924	117,347
Algeria and Tunisia.....	30,390	92,338	96,292	180,096	106,040
Cuba.....	45,302	92,772	55,431	57,663	103,256
Java and Madura.....	17,657	24,489	27,108	33,277	98,855
Other countries.....	980,985	688,695	1,384,170	451,966	1,573,718
<b>Total.....</b>	<b>8,861,746</b>	<b>6,997,595</b>	<b>7,654,679</b>	<b>7,785,019</b>	<b>7,843,650</b>

<sup>1</sup> 1930 figures include batteries (6-volt).

\* Figures cover all British South Africa.

## AFRICA

### ALGERIA

**Equipment Market Dominated by French Products with American Participation Limited—Increasing Motorization of Country Offers Certain Opportunities, Particularly for Sales of Service Appliances**

American Consul Oscar S. Heiser, Algiers

Motor-vehicle registration as of January 1, 1931: 42,000 passenger cars, 6,700 trucks, 1,550 busses, and 2,300 motor cycles.

French competition is the dominating characteristic of the Algerian market for all types of automotive equipment. The customs duties on automotive vehicles and products are the same as the duties in France, so that French products have an important advantage in competition with foreign lines. The increasing interest which has been shown recently in American automotive products has created some comment concerning the possibility of further increases in the import tariff. The uncertainty of the outlook is well recognized by the Algerian trade and has had the effect of discouraging all extraordinary effort and plans on a major scale for the marketing of goods not of French manufacture. Many Algerian dealers also complain of the practice of some American manufacturers of granting distribution rights in French possessions in contracts with firms in France, and they contend that this practice very often prevents the effective exploitation of the Algerian market for the product in question. This matter is one which, it is thought, should receive the careful consideration of every American company interested in developing the Algerian market on a profitable basis.

**SUMMARY OF THE MARKET FOR AMERICAN REPLACEMENT PARTS, ACCESSORIES, AND SERVICE APPLIANCES IN AFRICA**

Country	United States exports in 1930			Present demand			American participation		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Anglo-Egyptian Sudan.....				Fair.....	Slow.....	Slow.....	85 per cent....	80 per cent....	80 per cent.
Algeria.....									
British East Africa.....	\$292,290	\$22,127	\$22,749	Good.....	Steady.....	Fair.....	85-90 per cent.	85-90 per cent.	90-95 per cent.
Egypt.....	432,577	10,008	36,182	Slow.....	Down.....	Limited.....	45-55 per cent.	46-55 per cent.	46-55 per cent.
Ethiopia.....	2,053		299	Good.....	Small.....	do.....	75 per cent....	20 per cent....	25 per cent.
French Somaliland.....	199,910	3,201	3,664	Slow.....	do.....	do.....	70 per cent....	50 per cent....	75 per cent.
French West Africa.....				Good.....	do.....	Light.....	80 per cent....	Small.....	Fair.....
Gold Coast.....	194,481	5,344	9,074	do.....	do.....	Fair.....	80 per cent....	40 per cent....	60 per cent.
Morocco:									
French.....				do.....	Down.....	Growing.....	Light.....	Light.....	Heavy.....
International Zone.....	136,105	5,129	8,093	Fair.....	Limited.....	Limited.....	Fair.....	do.....	Favorable.
Spanish.....				do.....	do.....	do.....	do.....	do.....	do.....
Mozambique.....	55,636	5,939	16,589	Good.....	Fair.....	do.....	90 per cent....	90 per cent....	90 per cent.
Liberia.....	3,821	153	417	Slight.....	Slight.....	Restricted.....	do.....	do.....	Heavy.....
Nigeria.....	114,118	1,511	1,228	Steady.....	Active.....	Fair.....	Leads.....	Leads.....	40 per cent.
Portuguese East Africa.....	68,575	5,830	1,904	Good.....	Limited.....	Small.....	90 per cent....	do.....	Leads.
Tunisia.....	21,016	1,631	106,040	Growing.....	Down.....	Fair.....	Limited.....	Limited.....	Small.
Union of South Africa.....	1,371,839	119,917	305,668	Good.....	do.....	Good.....	80 per cent....	76 per cent....	Leads.

Country	Domestic production			European competition		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Anglo-Egyptian Sudan.....	None.....	None.....	None.....	Small.....	Small.....	Small.
Algeria.....						
British East Africa.....	None.....	Limited.....	None.....	Small.....	Small.....	Small.
Egypt.....	Negligible.....	None.....	do.....	Growing.....	do.....	Do.
Ethiopia.....	None.....	do.....	do.....	Small.....	Heavy.....	Heavy.
French Somaliland.....	do.....	do.....	do.....	do.....	Active.....	Small.

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French West Africa.....	do.....	do.....	do.....	Fair.....	Heavy.....	Fair.....
Gold Coast.....	do.....	do.....	do.....	Small.....	Growing.....	Do.....
Morocco:						
French.....	Fair.....	Small.....	do.....	Heavy.....	Heavy.....	Small.....
International Zone.....	None.....	do.....	do.....	Active.....	do.....	Do.....
Spanish.....	do.....	do.....	do.....	do.....	do.....	Do.....
Mozambique.....	do.....	None.....	do.....	Limited.....	Limited.....	Limited.....
Liberia.....	do.....	do.....	do.....	None.....	None.....	None.....
Nigeria.....	do.....	Slight.....	do.....	Growing.....	Fair.....	Heavy.....
Portugese East Africa.....	do.....	None.....	do.....	Small.....	Active.....	Small.....
Tunisia.....	do.....	Small.....	do.....	Heavy.....	do.....	Active.....
Union of South Africa.....	do.....	Fair.....	do.....	Growing.....	do.....	None.....

<sup>1</sup>Included in Tunisia.

From a general viewpoint, the distribution of automotive products in Algeria has been affected by the comparatively little capital possessed by persons engaged in the Algerian automotive trade. Many dealers in Algeria have been controlled, in one way or another, by French firms, which have exercised considerable influence over their business policies. Although this situation has changed somewhat in recent years, during which some of the Algerian companies have increased in importance and capital resources, the old habit of dealing exclusively with French wholesalers remains, although some firms now have a joint buying agency in Paris. The effect of these traditional business practices and influences has tended to restrict the trade in products of countries other than France.

### REPLACEMENT PARTS

The market for replacement parts has been extending steadily with the gradual increase in the number of vehicles in use. American participation in this trade, however, is limited to the supply of spark plugs, roller bearings, and brake linings, together with the articles necessary for the upkeep of the American vehicles that have been imported and which at present probably are not more than about 5,000. The best selling lines of parts at the present time are plain and roller bearings, bolts, brake linings, springs, spark plugs, pistons and piston rings, gears and starting apparatus, and radiators.

Competition is mainly with French products, which dominate the market; no other foreign products are gaining at the expense of American goods, which, on the other hand, have made a slight gain recently. Apart from French goods there is competition from Sweden, England, and Belgium in brake linings; from Sweden and Germany in ball bearings; from England and Italy in spark plugs; and from Germany in electrical equipment. The chief inducement offered by foreign firms to encourage direct relations is the practice of shipping goods on consignment, which is never done by American firms, nor as a general rule is it to be recommended.

The leading centers of distribution for replacement parts are Algiers, Oran, Constantine, Bona, and Sidi-Bel-Abbes, in order of importance. Wholesale distribution is effected by jobbers who sell to garages, which constitute the principal retail outlets in the smaller centers, and to dealers in general parts and accessories in the larger communities. Trade terms offered by both French and American manufacturers vary in proportion to the normal rate of turnover in the particular line. On the average a discount of 35 to 40 per cent is granted from the list price. The wholesaler aims at retaining about 15 per cent for himself; garages are credited with 10 or 15 per cent according to the business done. Originally French firms granted terms of 30 days, not counting the month of the order, but these terms have been extended to 60 and not infrequently 90 days. Local accounts are supposed to be settled monthly by means of drafts, but delays are numerous and recently have been particularly so.

### ACCESSORIES

The Algerian trade in accessories remains about stationary, increases in certain articles being offset by decreases in others. De-

creased sales are noted in the case of tire pumps, bulb horns, speedometers, luggage carriers, and shock absorbers, while sales of bumpers and lights have gained. Accessories most in demand are bumpers, jacks, lights (headlights must conform to the French regulations and be stamped officially), tire pumps, shock absorbers, radiator shields, and novelties. Antiskid chains are rarely used; license plates are of local manufacture; car heaters are seldom used in the Algerian climate.

The American share of the accessory trade is now very small, and the market is dominated by French products. No foreign products, other than French, are gaining at the expense of American goods, but for the reasons already given, the field for any manufacturers not of French origin is extremely circumscribed. The trade in body hoists, bumpers, jacks, and novelties presents the best opening, provided these products are of as good quality, present some special feature, and can be landed at competitive prices.

The marketing of accessories is done chiefly through the orders of dealers placed with wholesalers in Paris. It is clear that this method is expensive and leaves little margin for expenses of pushing local sales. Apart from this there are a few exclusive distributors importing on their own account and also a few commission agents who sell direct to dealers. Undoubtedly the best method of distributing is through traders importing on their own account as exclusive agents. Unfortunately the number of firms able and willing to do this is very small. Stocks tend to be low, unless the dealer has been able to arrange for consignment, and there is no doubt that sales suffer through the absence of adequate stocks. In many cases the dealer, not being an exclusive agent, carries competitive lines. Accessories are retailed generally by accessory dealers who also handle parts and lubricants. Outside the chief cities they are stocked to some extent by car agencies and garages, but this practice applies ordinarily to the lines which are in constant demand, such as jacks and bumpers.

Terms in this trade are usually 40 per cent discount on list prices for ordinary goods, and payment in 60 or 90 days is now not uncommon.

#### GARAGE AND SERVICE-STATION EQUIPMENT

While service facilities in Algeria can not be described as adequate in comparison with facilities in the United States, good progress has been made recently. In the larger concerns the foreman at least is usually a trained mechanic. A few years ago the Government opened schools where apprentices and others have been given a practical technical education in mechanic work.

The use of American equipment is not general, and the market is dominated by French products. All equipment in use is imported, generally through France, even when the products are of American origin.

There is slight, unimportant competition from England in shop tools, auto lifts, and wrenches. The American products which have been sold in this market have been bought on a quality basis. Competition is extremely difficult, in fact nearly impossible in certain lines,

such as air compressors, battery chargers, cranes, gasoline pumps, tire-repairing equipment, and salvage apparatus. In other lines American equipment has met with some success, but the market at best is a narrow one.

The fact that demands for garage equipment spring up suddenly in Algeria, possibly after two or three years of apparently unsuccessful sales effort, indicate that this trade is undergoing a slow but steady development. Its progress, however, is hampered by the disinclination of garages and service stations to make the necessary expenditures for modern equipment. Inasmuch as only a few Algerian garages are approximately modern, there is theoretically a large potential demand for this type of equipment, but a great deal of educational and pioneering work will have to be accomplished before this demand can be successfully developed. The best means of distribution of equipment lines is through a manufacturer's agent who would devote his whole time to the business. Unfortunately it is almost impossible to locate such a representative in Algeria. The best alternative is a jobber who would be able to devote the necessary energy and trade work to his line. Of course, the need of jobbers is being felt in this trade. The representative stationed in Algiers should be able to handle the market through the main distribution centers previously mentioned in this report.

When quoting terms it is imperative that c. i. f. quotations should be always supplied; no business is likely to result unless this matter is attended to. The credit which should be extended in this trade is a question which must depend largely on each particular case; generally, however, terms should be for not less than 90 days, possibly longer for goods having a slow turnover. The extension of these terms depends, of course, on careful investigation of the credit standing of the applicant.

### ANGLO-EGYPTIAN SUDAN

Automotive Trade Commissioner Ralph F. Chesbrough, Cairo, Egypt

Automotive registrations as of January 1, 1931: Passenger cars 1,298, trucks 1,547, motor cycles 337.

Normally, annual sales of automobiles in the Anglo-Egyptian Sudan amount to between 500 and 600 units, but during 1930, because of the prevailing depression, this figure was reduced to 212, and during the first five months of 1931 only 5 new automobile sales were made in all of the Sudan. American automobiles predominate in this territory, and for that reason American parts enjoy the greatest demand. In spite of the heavy decline in purchases of new automobiles, imports of equipment declined to a much smaller extent.

The main distribution centers for all types of automotive equipment is Khartoum, the capital, where the 10 distributors handling these lines all have their headquarters. These firms are all automobile distributors, who handle parts, accessories, and garage equipment in addition to their lines of vehicles. Most of them have branches or subagencies in Port Sudan, and other important trade centers in the Sudan.



**REPLACEMENT PARTS**

The participation of American replacement parts business in the Sudan is estimated at 85 per cent. Practically all types of parts are in constant demand with the exception of body hardware and upholstery material. The principal foreign competition is offered by distributors of European cars, such as Morris, Austin, Citroen, and Fiat, which handle parts used to service those vehicles.

**ACCESSORIES**

Up to 1931, the demand for accessories was good but has decreased during this year on account of the trade depression. The accessories most in demand are bulb horns, electric horns, jacks, lamp lenses, and tire pumps. The American share of this business is about 80 per cent. The European competition is offered by distributors handling the above-mentioned European cars.

Due both to the climate and the low purchasing power of the population, there is no demand for nonskid chains, radiator covers, car heaters, wind-shield cleaners, and taximeters. There is a small demand for luggage carriers by Europeans who travel in the country districts.

Both replacement parts and accessories are sold for cash, although credit is granted in a few instances, where the status of the buyer justifies an extension of terms.

**GARAGE AND SERVICE-STATION EQUIPMENT**

Service stations are fairly good in the Sudan, and there should be an increasing demand for better and more modern service and garage equipment when economic conditions justify their purchase. Equipment most needed includes battery chargers, cylinder-boring machines, garage tools, gasoline pumps, jacks, oil and grease guns, portable drills, reamers, valve grinders, and wrenches.

About 80 per cent of all garage and service-station equipment being used is of American manufacture; Great Britain has the majority of the non-American business, the balance being about equally divided between Italy and France.

Tires are now changed with the use of hand tools, and tire repairing is done by the tire distributors.

Electric current is now available only in Khartoum and Port Sudan.

**BRITISH EAST AFRICA**

**Present Demand for Replacement Parts Good, Accessories Steady, Service Appliances Fair—American Participation from 85 to 95 Per Cent in All Classes**

*Consul K. deG. MacVitty, Nairobi, Colony of Kenya, Africa*

Motor-vehicle registration in the three territories of British East Africa as of January 1, 1931, was: Kenya Colony, 10,302 passenger cars, 300 busses, 2,075 trucks, 1,820 motor cycles; Tanganyika Territory, 2,127 passenger cars, 250 busses, 2,345 trucks, 1,718 motor cycles; Uganda Protectorate, 1,702 passenger cars, 400 busses, 965 trucks, 2,152 motor cycles.

## REPLACEMENT PARTS

A good market for replacement parts exists throughout the territory of British East Africa. This is largely due to the fact that road conditions are especially difficult throughout the rainy season and to the practice of loading trucks to their absolute capacity.

Replacement parts for which there is a large demand are bearings, bushings, brake lining, clutch facing, fan belts, spark plugs, springs, valves, radiator caps, pistons, piston pins, piston rings, body hardware, body upholstery material, rims, and rim parts. There is only a small demand for driving or timing chains, stampings, forgings, gears, pinions, drive shafts, steering wheels, auto frames, and generators.

Aside from a limited amount of imports of replacement parts for the few British and Italian cars and trucks in operation, the import trade is all from the United States and Canada. British manufacturers control the market for body upholstery material and supply approximately 50 per cent of the brake linings, 25 per cent of the clutch facing, and 10 per cent of the spark plugs. German firms are offering lower prices on a large variety of replacement parts.

American automotive products are well liked, the general opinion being that they are more suited to the requirements of this territory than those of any other make. There is a tendency, however, on the part of the large German population to purchase German material, if available.

The distribution center for replacement parts in Kenya Colony is Nairobi. The distribution is almost entirely controlled by the firms engaged in the direct importation of cars and trucks and by manufacturers' agents. Garages and dealers handling parts and accessories throughout the country are supplied through these channels. There is some direct importing by small Indian firms in the interior of the country, but direct shipment to small firms should be discouraged, since most of them are operating on a limited capital and are not always able to make prompt settlement.

Throughout Tanganyika replacement parts are distributed through importers and manufacturers' agents located at Nairobi, Kenya Colony, and at Dar-es-Salaam and Tanga, Tanganyika Territory. Several of the larger Nairobi firms have branches at Dar-es-Salaam.

Most of the replacement parts imported into the Uganda Protectorate are either shipped through distributors or ordered through manufacturers' agents located at Nairobi. Several of the larger automobile dealers located at Kampala, Uganda, order directly and distribute to the smaller firms. Distribution in Tanganyika and Uganda is made in the same manner as in Kenya Colony.

Practically every shipment of replacement parts from the United States is made on a cash against documents basis. A few British firms are offering 90-day credit, but the majority are shipping on the same terms as American firms.

The most suitable method of advertising replacement parts and accessories is through the daily and weekly press. Daily, except Sunday, and weekly editions of the East African Standard, published

at Nairobi, and the Mombasa Times, published daily, except Sunday, in Mombasa, cover all of Kenya Colony and practically all of East Africa. There is also the Tanganyika Standard, published at Dar-es-Salaam, daily and weekly, while the regular editions of the East African Standard, mentioned above, has a large circulation in Uganda.

There is a definite trend toward the distribution of replacement parts by automobile dealers. In fact, practically 85 per cent of the trade is now in the hands of distributors and dealers of passenger cars and trucks.

#### ACCESSORIES

In Kenya Colony the demand for automotive accessories has shown a steady increase during the last five years. This is largely due to the development of a locally made body adapted to East African conditions and to the fact that motor transport is a necessity.

In Tanganyika the demand is fairly large, especially in certain lines, since cars are kept in use over long periods and replacements of accessories are made four or five times during the life of a car or truck. The demand in Uganda had shown a steady increase up to the first of the year, 1931. Since that time, owing to the financial depression, the demand for accessories has been slack, and purchases are being made only to cover absolute requirements.

The largest demand for accessories includes chains, electric horns, hand and mechanical jacks, lenses, lights (head, rear, stop, and parking), tire pumps, seat covers, wind-shield cleaners, and license plates. There is no demand for such articles as car heaters, locks, luggage carriers, and novelties.

Foreign competition in the accessory trade is confined to license plates and tire pumps, both of which are imported from Great Britain. The British license plate, according to dealers, is much cheaper than the type used in the United States. The local preference is for tire pumps operated by foot rather than by hand. Dealers state they would handle an American pump of this type if it could be sold at a low price.

Seat covers, the demand for which is large, are all made locally from imported material. It is not felt that seat covers could be imported at a price to compete with domestic articles.

The distribution method for accessories is exactly the same as for replacement parts.

Accessories, like replacement parts, are imported almost entirely on a cash against document basis.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are not more than four adequately equipped service stations in Kenya Colony, all of which are located at Nairobi and Mombasa and operated by distributors of automobiles. There are two stations in the Tanganyika Territory, both of which are located at Dar-es-Salaam. Fairly equipped stations are being operated in Tanga, Arusha, and Moshi; there are also two adequately equipped garages in Uganda, one located at Kampala and the other at Jinja.

It is not expected that the number of service stations will be increased to any extent for some time. Lack of a large population outside the centers mentioned hardly justifies the expense of equipping up-to-date service stations. The mechanics employed in Kenya Colony and Uganda are locally trained. In Tanganyika, there are a number of German-trained mechanics, also a number of East Indians who have had practical training.

Items of garage equipment for which there seems to be an active demand are air compressors, battery chargers, garage tools, hydraulic and mechanical jacks, lubricating systems, oil and grease guns, portable drills, reamers, valve grinders, and wrenches. Nearly all the garages are already equipped with wheel alignment and towing apparatus.

American equipment is used almost exclusively at service stations and garages. There is no equipment manufactured locally, and the only items in which there appears to be foreign competition are oil and grease guns, the trade being divided equally between the United States and Germany.

In the Tanganyika Territory German firms also compete in hand tools.

Gasoline pumps are supplied and operated by the various oil distributing companies. All gasoline pumps in use are of French manufacture, even the American companies using this type of pump.

Electric current is available only in two cities of Kenya Colony, Nairobi and Mombasa. The voltage is 240 alternating current, 50 kilocycles. Special rates for current are made to garages. In Tanganyika electric current is available only at Dar-es-Salaam and Tanga, with voltage of 230, direct. Special rates are made for garages, the cost of current being considered reasonable. Electric current is not available in Uganda other than from privately operated plants. None of the garages operates its own power plant.

Garages in the principal cities are equipped with mechanical tools for changing tires, but elsewhere hand tools are used.

The main distribution center for the entire territory is Nairobi, Kenya Colony, where the principal stocks are maintained. Other distributing points are Dar-es-Salaam, Tanganyika, and some few items are handled by dealers in Kampala, Kenya Colony.

Garage equipment can best be handled through the present channels; that is, through importers of automobiles. Such firms handle all types of automotive equipment and are constantly in touch with garages and other purchasers of these lines.

## CIRENAICA AND TRIPOLITANIA

Trade Commissioner I. H. Taylor, Milano, Italy

The Italian colonial territories of Cirenaica and Tripolitania, in North Africa, with a total population of about 1,070,000 (only 30,430 being Europeans, over 90 per cent of which are Italians), could not be in any sense considered important automotive markets.

It is estimated that in Cirenaica there are approximately 175 motor vehicles—50 passenger cars, 75 trucks, and 50 motor cycles. It is impossible to determine what portion of these are privately owned, but the large majority are in the military service.

Since the Arabs in Cirenaica are still hostile, private motor-vehicle use has not developed to any appreciable extent. As a matter of fact, it is reported to be unsafe, even in broad daylight, for a motorist to venture more than 2 miles outside of Benghazi, the principal town. Under the circumstances, this colonial area is hardly eligible for classification as a market for replacement parts, accessories, or service equipment. Such of these items as are required by the military authorities are, as might be expected, secured from Italian sources.

With a much-improved highway system and state of native tranquillity, Tripolitania presents a somewhat more promising picture. Here, too, the military use of motor vehicles plays an important part. The best estimate available indicates that at the beginning of 1931 this colony had 2,130 automotive units; these comprised 1,050 in Government service (200 passenger cars, 700 trucks and busses, and 150 motor cycles), and 1,080 in private use (450 passenger cars, 350 trucks, 80 busses, and 200 motor cycles).

In Tripolitania there exist five outlets for garage and service-station equipment. The first of these is the large shop where the military automotive equipment is serviced. Another, the garage operated by the Fiat dealer, is already amply provided with American equipment. A third garage offers service facilities for all makes of cars; here, too, American labor-saving devices predominate. The other two garages are owned by bus-operating companies, and in these, service work is done only on the 40 or 50 busses of each operator. These garages are also American equipped.

Although American cars represent only 1 or 2 per cent of those now operating in Tripolitania, all the private cars depend for their maintenance on American equipment. When the military garage is modernized it is said it will also use American equipment.

Because of the decidedly limited demand for parts and accessories in the combined territories of Cirenaica and Tripolitania, no special discussion of these phases appears to be warranted. The demand, up to the present, has been almost exclusively for Italian products, but what little American business might be done, and this applies also to service appliances, can best be secured by a technical jobber operating out of Milano. Certainly these small and rather inaccessible markets could not be handled efficiently direct by an American exporter.

## EGYPT

**Demand for Replacement Parts Important with American Participation Strong, but with Increasing German and Italian Competition—Accessories Trade Declining—Demand for Service Equipment Limited, but Prospects Good for Trade Expansion**

*Automotive Trade Commissioner Ralph F. Chesbrough, Cairo*

Total automotive registration as of January 1, 1931: 25,082 passenger cars, 3,864 trucks, 1,190 busses, 3,271 motor cycles.

According to Egyptian customs statistics, total values of automotive spare parts, accessories, and garage equipment imported during 1929 and 1930 amounted respectively to approximately \$1,470,165 and \$1,226,515. The lower total in 1930 represents a fall in values of

the products imported rather than a quantitative decrease. During the first six months of 1931 these imports totaled only \$387,625 as compared with \$825,160 in the corresponding period of 1930. This decrease was attributable to lower cost, to a reduction in the purchasing power of importers and consumers, and also to the fact that during the first six weeks of 1930, prior to an increase in duty, the receipts were extraordinarily heavy.

The following figures show the relative participation of the various foreign countries participating in the Egyptian trade in accessories and spare parts:

## IMPORTS OF AUTOMOBILE ACCESSORIES AND SPARE PARTS INTO EGYPT

[In Egyptian pounds; 1 Egyptian pound equal to \$4.94]

Countries	1929	1930	First 6 months of 1930	First 6 months of 1931
United States.....	152,776	126,715	90,839	33,365
United Kingdom.....	51,188	41,841	24,682	18,041
France.....	35,167	26,371	15,145	9,607
Germany.....	26,775	21,663	12,043	8,337
Italy.....	24,175	26,661	19,427	6,794
Others.....	2,972	2,052	2,896	1,408
Total.....	294,003	245,303	165,032	77,525

As Egyptian statistics do not differentiate between the classes of equipment, it is impossible to break these figures down by values into the three separate categories. However, it is the consensus of leading distributors and importers that the ratios are about as follows: Replacement parts 70 per cent, accessories 20 per cent, garage equipment 10 per cent of total.

It is estimated that the wholesale value of sales of the three classes of equipment during 1930 was approximately \$1,722,000. On the basis of 36,000 automotive vehicles in circulation in the country, sales of replacement parts in 1930 would work out to an average of \$33.50 per vehicle and sales of accessories \$10 per vehicle.

Purchases by the Egyptian Government of replacement parts, accessories, and garage equipment are always made by public tender and in practically all cases from stocks of dealers in Egypt. In 1930 these Government purchases are estimated to have been approximately 5 per cent of total sales, or about \$85,000.

Sales of equipment are made in Egypt by wholesale dealers in these lines, who import direct and who usually hold the exclusive representation for a number of American and European manufacturers. Sales of replacement parts only for the makes of vehicles the dealers represent are made directly to owners by car, truck, and motor-cycle distributors. Practically all sales in the first-mentioned category are made by firms located in Cairo and Alexandria, the main distribution centers for Egypt. There are 24 of these in Cairo and 20 in Alexandria. The territory covered by firms in Cairo extends from Damanhour to Port Said, Suez, and all of upper Egypt; Alexandria dealers cover that city and the Delta district. There are hundreds of small retail shops scattered all over Egypt which do not import, but purchase their requirements direct or through the travel-

ing salesmen of the 44 wholesalers in Cairo and Alexandria. There are not more than three or four merchants outside these two cities who import directly from abroad. There is only one commission agent permanently located in Egypt who specializes in representing and selling European spare parts, accessories, and garage equipment.

European manufacturers sell direct to importers, to whom they usually confide exclusive representation and also usually send their own representatives to Egypt once or twice a year to appoint representatives and to book orders. There are three commission agents permanently located in Egypt who specialize in representing American manufacturers or export houses handling equipment lines. These sell to importers and wholesalers both in Egypt and other countries of the Near East. Probably one-fourth of the equipment imported annually from the United States is handled by this method.

#### REPLACEMENT PARTS

The market for replacement parts in Egypt showed a healthy increase until 1930, when exports declined as a result of reduced purchasing power. The depression has particularly affected the Egyptian trade in parts, and to understand the reasons for this situation it is necessary to consider the present methods of purchasing and distributing parts.

There are three kinds of importers of replacement parts in Egypt: First, the automobile dealer who purchases replacement parts direct from the factory which manufactures the automobiles he represents; second, the independent parts importer-wholesaler who imports from factories other than automobile manufacturers; and, third, the automobile wholesale-accessory dealer who imports only a number of replacement parts and who competes in these lines with both the other classes of dealers. The automobile dealer distributes the so-called genuine parts only to his own subdealers and agents. The other two types of dealers sell to all retailers scattered throughout the country and often to the automobile dealer when he runs out of stock.

The dealers ordinarily possess adequate financial resources and purchase practically always on a cash basis; the independent wholesalers generally have limited means and are more dependent upon obtaining credit from manufacturers and local banking institutions. Consequently, they are more subject to the adverse effect of economic disturbances.

Another fact is that in Cairo, the main distributing center for replacement parts, most of the business is done by independent wholesalers who also run stores in the business quarters of the city and sell at retail as well. Although the business is practically in the hands of only five or six wholesalers, the competition among them is very keen, which tends to reduce their profits, particularly during a dull period. These wholesalers usually employ two or three traveling salesmen who regularly visit interior points of Egypt and book orders from retailers who are usually small and of poor credit standing. The Cairo wholesalers are obliged to grant them long terms to obtain their business. Sales to the interior are never made on an open-account basis, but always on time drafts, which

the wholesalers discount usually in order to meet their obligations with foreign manufacturers.

Until a few years ago, American as well as European manufacturers were selling direct to independent wholesalers either through direct-mail advertising or through their traveling representatives. Exclusive rights were also sometimes granted to these wholesalers. In recent years, however, a tendency has been noticed on the part of both American and European manufacturers to withdraw their accounts from the wholesalers and put them in the hands of manufacturers' representatives working on commission. However, as there are only a few such commission merchants specializing in spare parts and accessories, and these already have complete lines, there are still a number of foreign manufacturers represented in Egypt by wholesalers. Retailers claim to have suffered from the inability of wholesalers to supply them with their requirements, and the strongest and most important retailers have manifested a desire to enter into direct communication with the foreign manufacturers. It was for this reason that numerous small orders have been sent in to European and American companies. The wholesalers, aware of this tendency, are making strenuous efforts to discourage the retailers from ordering direct, and will, it is believed, give more attention in the future to the question of maintaining adequate stocks.

Although American participation has been strong in the Egyptian parts trade, wholesalers have turned their attention recently to European manufacturers, especially Italian and German, who are making a number of items which were previously exclusively imported from the United States. This interest of wholesalers in European lines is partly due to their desire to obtain products to sell at lower prices to offset the competition created by their former clientele, the retailers.

Among the most important articles offered by European manufacturers are pistons, pins, piston rings, valves, bolts, rim bolts, rim-bolt clamps, foot plates without facings, king bolts, spring bolts, springs, front axles, gaskets, motor bearings, and roller bearings. In some of these lines the prices range from 25 to 50 per cent below those quoted by American manufacturers.

In the trade in brake linings the United States has about 70 per cent of the business, the balance going mostly to Italy and Germany. Brake linings shipped to Egypt should always be plainly marked. In the trade in gaskets, one German firm is now furnishing 40 per cent of the Egyptian demand. In the trade in springs the United States supplies about 60 per cent, France and Belgium about 15 per cent each, and the remainder comes from Italy, Germany, and England. The United States and European countries share in the trade in pistons at a ratio of about 60 per cent and 40 per cent, respectively. France supplies aluminum pistons and Italy iron pistons. Most of the axleshafts from Europe are imported from Italy. In the trade in bearings, European manufacturers supply about 70 per cent of the business. The most popular makes are S. K. F.; R. I. V. (Italian); M. A. B. (French); and Rhineland (German). European firms have about 40 to 50 per cent of the trade in fan belts and radiator hose. In this business one German manufacturer (Continental) supplies a good quality at about two-thirds of the price of competing American lines.



The usual terms in this trade offered both by European and American manufacturers range from 60 to 150 days, documents against acceptance.

There is a small and unimportant Egyptian manufacturer of parts, who is mainly occupied in producing brass and bronze articles.

#### ACCESSORIES

The market for accessories has been decreasing for the past three or four years, owing to the practice of manufacturers to include more accessories as standard equipment, and to the increasing economy practiced by Egyptian car owners.

There is a steady and continued sale of bulb horns, electric horns, jacks, and lamp lenses. The demand for bulb horns is particularly large, as it is a requirement of the traffic departments that each car should be equipped with a nonelectric horn. Tire covers are usually imported by automobile dealers and the larger wholesalers who give them away for advertising purposes; recently, however, this practice has been temporarily discontinued. On account of the mild climate in Egypt there is no demand for car heaters, windshield cleaners, nonskid chains, and radiator covers. License plates are made locally. As owners of private cars use them only in and around Cairo, Alexandria, and other large cities, there is little demand for trunk racks and baggage carriers.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Almost the only garage equipment which it has so far been possible to introduce into Egypt with success on an important scale has been air compressors. Efforts have been made to introduce a number of labor-saving devices, but with little success, due principally to the cheap labor obtainable and the low prices charged by workshops for repairs. The garages do not undertake repair work, but there is usually a small, poorly equipped workshop near every garage. Egyptian garages do not use car-washing machines and ordinarily possess only an electric air compressor and sometimes a mechanical jack. The best service-station equipment is owned and operated by automobile agents, whose principals have compelled them to put in some equipment to service their cars. However, these stations still lack many items of equipment.

Cylinder boring is done by special workshops which own from one to two large boring machines and which specialize in this kind of work.

In one or two cases dealers have imported American cranes, hydraulic jacks, towing and salvaging equipment, valve grinders, etc. They have found it very difficult to dispose of this merchandise and now do not care to stock such articles. A few dealers usually have the smaller garage equipment, such as hand tools, reamers, small hand grease guns, and rarely one or two air compressors. The larger equipment is usually ordered only when the dealer has already sold it in advance. This applies also to tire-repairing machines, which are handled practically exclusively by tire agents. The local engineering and electrical houses stock drills, paint-spraying equipment, and battery chargers, but sales of these articles are very slow. Prac-

tically all welding outfits are imported from Europe and handled through engineering houses, which are usually branches of European manufacturers.

Most of the equipment in use is American, with the exception of some tools which are imported from Germany and France owing to their cheapness. There is no local manufacture of tools.

Electric current is available to Egyptian garages and other mechanical workshops on an economical basis during the daytime. In the interior of Egypt electric current is obtainable only after sunset.

Tire-repair shops are fairly well equipped, but there is still ground for increasing the sales of mechanical tools for changing tires and rims.

The principal obstacles to the development of a greater demand in Egypt for garage and service-station equipment are the general lack of interest in the advantages of this equipment and the disinclination of garage and repair-shop owners to make the necessary expenditures to modernize their facilities. It is evident, therefore, that a great deal of educational work will have to be undertaken to pave the way for the future demand for these lines. Dealers who from time to time are able to sell some specialized tools state that they could have introduced a large number of American lines of equipment if manufacturers had found it possible to allow them more liberal credit facilities. It is explained that this equipment requires a large investment of capital and that the dealers have to give from 12 to 18 months' credit owing to the inability of the workshop owners to pay more than a few dollars a month.

Despite the unfavorable points mentioned above, it is believed that Egypt should offer a good market for garage and service-station equipment, as the local dealers have never yet given the proper attention to this trade. In order to build up this business American manufacturers should give careful consideration to the possibilities of granting suitable terms to a few of the reputable and financially strong Egyptian dealers and engineering houses and should plan also to follow up the extension of these terms with active educational campaigns designed to break down the present apathy concerning modern equipment.

## ETHIOPIA

**Replacement Parts Demand Good, Accessories Small, Service Appliances Limited—Lack of Highways Has Restricted Increased Trade—European Competition Heavy in Accessories and Service Appliances**

Vice Consul James L. Park, Addis Ababa, Ethiopia

Motor-vehicle registrations as of January 1, 1931: 572 passenger cars, 101 trucks, 40 motor cycles.

The marked reduction in sales of new motor vehicles in Ethiopia during the years 1929 and 1930 is just beginning to be offset in part by a new trade in replacement parts and accessories. Garage equipment is of little importance, although a start has also been made in this direction.

Nearly half of the motor vehicles are American. The American share of the new parts and supplies trade is estimated thus far to be

about three-quarters of the total. American vehicles are subjected to heaviest duty, are the sturdiest, and can be kept longest on the road by replacement repairs. It is being discovered here that the life of American cars by this means can be greatly extended at comparatively small expense.

There has been very little trade in used vehicles as such. When a car could no longer be driven it has been sold, when possible, for its parts. This constituted the chief source of replacement parts prior to the beginning of importations, only in 1930, of regular replacement parts and accessories. Parts not thus available have actually been manufactured by the more skilled blacksmiths, at a cost in labor and possible damage in use to the car out of proportion to the market value of new and properly made parts.

The reason for this unorganized and uneconomic method of car repair was the limited demand, owing to the small size of the automotive market, for parts and accessories. Merchants other than car and truck agents were unwilling to risk importations of the general stock necessary to meet even the most common requirements. The possible trade has been so small that any misjudgment of needs would offset possible profits through unsaleable or rarely saleable stock.

Now, however, fewer new vehicles are being sold and attention is turning for the first time to economic methods of maintenance. It is being realized that blacksmith repair is doubly costly, both because of excessive charge and actual injury to the car repaired.

Up to the end of 1925 the imports of parts, accessories, and garage equipment were considered negligible. The 1926 trade was estimated by leading dealers to have been valued at about \$500. The average was probably about \$1,000 a year from 1927 to 1929. The 1930 trade, however, is estimated from dealer reports to total \$5,000, showing the important stimulus of reduced new-car sales to the general accessory trade considered in this report.

#### REPLACEMENT PARTS

The following list covers in estimated order of demand the leading varieties of the still relatively small Ethiopian trade in replacement parts: Piston rings, spark plugs, gears, pinions, brake lining, clutch facing, bolts, springs, fan belts, valves, radiator caps, axles, axle shafts, drive shafts, plain ball and roller bearings, pistons, piston pins, rim and rim parts, bushings, steering wheels, generators, stampings, forgings, and radiators. Other parts of a special or uncommon nature are imported on firm order from the nearest market. Such parts are occasionally available from Aden, Arabia, and more often from Egypt. For many parts it is necessary to order direct from the United States.

The American share of the trade until 1930 was estimated at a little over one-half of the total, which was the proportion of American cars in Ethiopia. Foreign replacement parts held to the proportion of each make of car. Last year, however, brought new interest in replacement parts and the sale of American parts was aided by the efforts of the most enterprising agents.

There is no domestic manufacture except the blacksmithing of parts not quickly available. This practice is now disappearing. No

foreign products of this kind are known to be gaining at the expense of American trade. On the contrary, some American parts, such as spark plugs and brake linings, are supplied to foreign cars here. Dealers in American cars buy almost exclusively American parts.

Replacement parts are only beginning to be handled by the two local dealers specializing in such goods without having car agencies. Car and truck agents handle an estimated 80 per cent of the trade, accessory dealers 15 per cent, and garages 5 per cent. Until a few years ago practically all imports of replacement parts were handled by car and truck dealers. The garages are still principally occupied in supplying parts for cheap cars.

The present distribution trend, not yet certain, is through importers specializing in replacement parts. These may never acquire more than 50 per cent of the total trade because car dealers are still interested.

Prevailing terms to importers are cash on presentation of shipping documents to the local Bank of Abyssinia. Some car agencies have special open-account arrangements.

Addis Ababa is the only market. There is no distributing center, properly speaking, in Ethiopia. A beginning has been made in the supply from Addis Ababa of spare parts to the railway city of Dire Daoua, where only recently several cars (about 10) have been introduced. There are probably 30 additional cars and trucks in other parts of the country, chiefly in the extreme west, where replacement service is not yet reported, and where parts can best be obtained from Sudan.

Advertising has practically no importance in this market. The main thought of the purchaser is to find the part he needs at the lowest price. Advertising is done by most car dealers, employing the local weekly French and Ethiopian papers (three in all). The trade is still too small to give this much importance.

The Ethiopian market for replacement parts is so limited that proper service to cover most contingencies may not develop for several years. Addis Ababa is off the main trade routes (distance from seaboard, 500 miles; time for freight, one to two weeks, sometimes more). It is not only difficult to obtain replacement parts quickly but also to dispose of unwanted stock in other markets. There is necessary caution in ordering, which makes recent increases the more interesting.

#### ACCESSORIES

The demand for automotive accessories is small. It is estimated for 1930 at not more than \$1,000, one-fifth of the reported total of this group of commodities. They cover a limited range and include the cheapest of necessities with the exception of popular radiator ornaments and other novelties. Theft of unsecured items, such as tools, induces some purchases without necessarily adding to gross trade volume. Extreme economy is practiced.

In order of importance the accessories considered most in demand are as follows: Horns (bulb and electric), polishes, pumps, jacks, hoods, novelties including radiator ornaments, lights (head and rear), lenses, and bumpers. Bulb horns, for example, are leading commodities because few drivers keep their electric systems in good

order. There is a tendency to purchase showy ornaments, sometimes expensive, and to save unduly on more essential accessories. When accessories which are furnished with new cars get out of order, they often are not repaired and are rarely replaced. Many cars have neither jacks nor pumps; few locking devices are used.

It is estimated that 35 per cent of the accessory trade is French, 25 per cent German, 20 per cent British, and 20 per cent American. There is no local manufacture. European accessories are favored, simply because of lower price. This is due especially to nearness and lower factory costs. Accessories, with some exceptions, are not considered necessities in this market. The small total volume prevents great interest being taken in active salesmanship.

Accessories are stocked about 75 per cent by car agencies, 15 per cent by dealers, and 10 per cent by garages.

Accessories are marketed chiefly through exclusive agencies for their own account. The trade is so small that there has not been any pronounced local objection to the increasing practice of small direct importations by retailers, without agency understanding. Some buyers have found it most practicable to order accessories in groups from various manufacturers, through commission and forwarding agents. Stocks carried are small.

Distribution is adequately organized for this small market, and is practically limited to Addis Ababa. The few accessible markets outside the capital are as yet unimportant.

Competitive lines are sometimes handled by the same agency, with little thought being given to it in so limited a trade.

Terms are, as usual, cash in full against documents through the Bank of Abyssinia.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are 12 garages in Addis Ababa and none, so far as is known, elsewhere in the country. Only two have partial machine equipment. The others are small workshops. At the present stage of automotive development, such shops are considered adequate. The better-equipped shops do not have enough business to cover the investment. There are many native car owners who avoid when possible the expense of repairs. There is much wear and tear on cars and trucks, but the total number is too small to encourage further imports of modern garage equipment.

Trained mechanics are few. Most garages have the apprentice type of employee for repair work. Foreigners who own cars get best results by personally doing or directing any work required on their machines.

The following items are used to a limited extent in Addis Ababa and are listed in the approximate order of their importance: Wrenches, battery chargers, tools mostly for garage work, mechanical and a few hydraulic jacks, paint-spraying equipment, tire vulcanizers, and welding outfits. The simpler hand tools predominate. Wrenches and other small tools are most in demand.

French equipment is estimated at 40 per cent, German 35 per cent, American 25 per cent. Purchases are governed by price. There is no local manufacture with the exception of an occasional

simple tool that can be hand forged, so that domestic manufacture is not likely to offer competition to imports in the near future.

Machine equipment has no present demand, although expected trade growth should be considered in the future.

The small size of the automotive trade has thus far prevented sale of the more important garage equipment. Lack of skilled mechanics is a further restriction. Electrical current is not available except by means of some 75 individual plants, nearly all privately owned for house illumination rather than for power. Any garage would have to install its own electricity for machine power as well as light. This, under present conditions and probably for some time to come, would not pay. The amount of repair and service business is probably smaller in proportion than the automotive trade as a whole.

Most of the garages are independent of automobile dealerships. Most of the dealers have what they call garage and service stations, but these are essentially only shops for the sale of spare parts and accessories.

The best selling method is through exclusive agents directly appointed by manufacturers. For the small present trade volume and area the existing methods are considered sufficient. Consignment might help sales but could become a risky practice.

Only Addis Ababa could be called the distributing center for the little trade in garage equipment. Distribution beyond this immediate area is negligible.

Tires are rarely taken to repair shops and changing is entirely by hand. Hand tools predominate, although many drivers are not usually supplied with the best of these nor with a full set. There are only two tire-repair shops in the territory.

The usual and safest practice is payment against documents on arrival.

There is general local recognition of the need for better and more modern service and garage equipment, but until the general automotive trade increases considerably this need will probably not be met. A really modern garage was attempted two years ago with considerable French and other European machinery. It has not been made to pay in proportion to investment, rent, skilled labor, and other expenses. At present it is closed.

## FRENCH SOMALILAND

Vice Consul James L. Park, Addis Ababa, Ethiopia

Motor vehicle registrations as of January 1, 1931: 157 passenger cars, 37 trucks, and 41 motor cycles.

The general automotive trade of French Somaliland, whose only market is the port of Djibouti, owing to the desert nature of the colony, started about 1920. Separate trade in parts, accessories, and garage equipment did not begin until 1926, prior to which year very little was imported. Only car agencies carried small and wholly inadequate stocks. Supplies are not yet even up to demand, Djibouti depending mainly upon Aden, just across the Gulf of Aden, for such needs as can be supplied from time to time.

### REPLACEMENT PARTS

Whereas American cars have reached about 50 per cent of the total in the colony, American parts have reached an estimated 70 per cent of all the parts now being supplied. These parts are adapted as much as possible to foreign cars, since foreign agencies carry minimum stocks and appear to have no desire to service the cars they sell.

The replacement parts most in demand, arranged in order of estimated importance, include springs, spark plugs, brake lining, fan belts, clutch facing, piston rings and pins, pistons, drive shafts, rims, and rim parts.

There is practically no competition against American products. When a foreign car needs a part which is neither on hand nor can be made in a local machine shop it is ordered from Europe, and the car is removed from service from six to eight weeks. American cars are better served, since agents are interested in increasing car trade through such servicing as conditions render practicable.

Djibouti is the only market and the only immediate distribution center. Aden has served as the principal distribution center for the needs not met by limited Djibouti stock. Orders are so few that it is considered better to wait a week or 10 days for a part than to stock uncertain requirements.

In Djibouti each importer of replacement parts is his own retailer. Only two car agencies, both of American makes, stock parts with any regularity. The trend continues to be sale of parts by car agencies only. There are no firms specializing in replacement parts.

Terms have almost exclusively to date been cash against documents on arrival of goods, negotiated through the Banque de l'Indochine at Djibouti. Open account has been reported as occasional.

The only method of advertising is by means of posters, used by the two agencies for American automotive products. They are considered as effective as any advertising is likely to be in so small a community.

It can be said that replacement parts in Djibouti usually outlast the car itself. Chassis, bodies, and other parts not readily replaceable suffer rapid depreciation from the heat, humidity, and salinity of this tropical port. Rather than attempt to replace such general deterioration, it is usually thought more economical to buy new cars. Used parts are therefore often taken from old cars, further limiting imports of new parts.

### ACCESSORIES

Of the very small accessory trade in French Somaliland, dealers report that about 50 per cent is American, 40 per cent French, and 10 per cent miscellaneous.

Such articles as bumpers, theft-proof locks, speedometers, wind-shield visors, radiator heat indicators, and various other accessories which might and should be sold in Djibouti have never yet been sold, although used and appreciated when provided as original equipment of the car.

The few sales are made chiefly in bulb horns, hand jacks, lamps, lenses, mirrors, tire pumps, and novelties. Such goods are marketed almost entirely through car agencies. Very small stocks are carried. There is no consistent demand, except for jacks, bulb horns, and hand pumps. Competitive makes are not handled by the same dealers, mainly because stocks generally carried are small. There are no separate accessories dealers.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are only two garage service stations in Djibouti—at present the only possible market in French Somaliland. Both belong to agents of American cars. There is only one full-time European skilled mechanic employed exclusively for automotive servicing and repair. Other mechanics so employed are chiefly Somalis and Indians, semiskilled, who may be rated as apprentices.

It has been estimated that fully 75 per cent of the little garage equipment in Djibouti is American. Foreign competition is negligible.

No specific needs in garage or service equipment can be said to exist in Djibouti at present. Demand, except for tools, scarcely exists. Restriction of the market is primarily and almost solely due to the small size of the automotive trade as a whole in French Somaliland. Djibouti is the only logical distributing center, even if the trade increases considerably.

Electricity at 220 volts is available in Djibouti. Hand tools for tire changing and for most other car maintenance work are most consistently used. Installation of mechanical equipment is now at a standstill.

There is very little tire repairing. Tires average about a year of service. Rubber perishes rapidly, causing general deterioration in addition to wear. There is no means of repairing casings. Drivers and owners usually patch their own tubes.

Cash against documents through the Banque de l'Indochine has been the method of importing existing garage equipment. There is no distribution in the sense ordinarily employed. Importers are for the most part the retailers. Business is too small to make wholesaling practicable.

There is no particular interest in better and more modern garage and service equipment. The two good garages already established are considered rather in advance of actual needs.

Future prospects, judging from present indications, are in the direction of slowly increasing demand, chiefly for replacement parts. Total volume can not be important, perhaps for many years to come, owing to the physical restriction of the market area to one small seaport. Practically the only owners and users of motor vehicles are a few hundred of the foreigners and occasional Indians, Somalis, and Arabs. Five miles or so of road, most of which is in fairly good condition, can not encourage rapid or extensive growth of trade in these three branches of automotive supplies.



**FRENCH WEST AFRICA**

**American Firms Furnish 100 Per Cent Replacement Parts, 50 Per Cent Garage Equipment, and Small Share of Accessories—There Is a Growing Realization of the Need of Well-Equipped Garages**

*American Vice Consul John J. Coyle, Senegal, French West Africa*

Motor vehicle registrations as of January 1, 1931: 3,864 passenger cars, 5,797 trucks, 419 motor cycles.

**REPLACEMENT PARTS**

The automobile market in French West Africa has grown rapidly during the last five years. Improved roads, coupled with the fact that native and Syrian small traders have come to appreciate this method of transportation, have contributed to this growth. The replacement-parts market has increased in direct proportion to the improvement of automobile sales.

About 63 per cent of all automobiles in circulation in the colonies are found in Senegal. Road and climatic conditions make for rapid deterioration of motor vehicles. The inexperience of native drivers also brings about quick destruction of the moving parts of the vehicles. As a result, far more replacement parts are sold per vehicle than in other much larger markets.

The trading and transport seasons are confined to a few months of the year, generally from November to April. During these months automobiles, and trucks in particular, are in constant use. The owner-driver prefers to save time by buying a new replacement part rather than repairing the old one.

Parts most in demand include ball and roller bearings, clutch facings, fan belts, spark plugs, springs, valves, pistons, piston rings, gears, pinions, drive shafts, starting and lighting generators, rims and rim parts, radiators, axle shafts, rim bolts and nuts, and batteries.

American participation is estimated at close to 100 per cent for replacements on cars of American make. For replacements on other cars there is practically no demand for American parts.

The direct representation of the manufacturer is held exclusively by a large trading firm that markets the automotive units and its replacement parts through its stores and stations throughout the colonies. These exclusive distributors maintain their own sales departments. In a few instances the trading firm distributor may be represented in the interior by a small independent trader or garage operator acting as his agent or subdealer.

The usual terms offered to the distributor of American manufactures are cash against delivery of shipping documents to the New York representative of the distributor, or by a local bank to the distributor. In some instances a credit is granted of 90 days on a draft acceptance payable in United States dollars at New York. French manufacturers usually deliver replacements to the distributor on a consignment basis.

There are no domestic lines. Practically, there are but two sources of replacement parts, French and American.

The leading distributing centers in French West Africa, in order of importance, are: Dakar, Kaolack, and Diourbel, Senegal; Grand Bassam, Ivory Coast; Conakry, French Guinea; Cotonou, Dahomey; and Bamako, French Sudan.

In all the colonies except Dahomey and the Ivory Coast there is a preferential duty of 7 per cent against replacement parts of other than French origin. There is an excessive difference in freight rates between the United States and French West Africa as compared with rates from France. More favorable financial terms are also offered by French manufacturers.

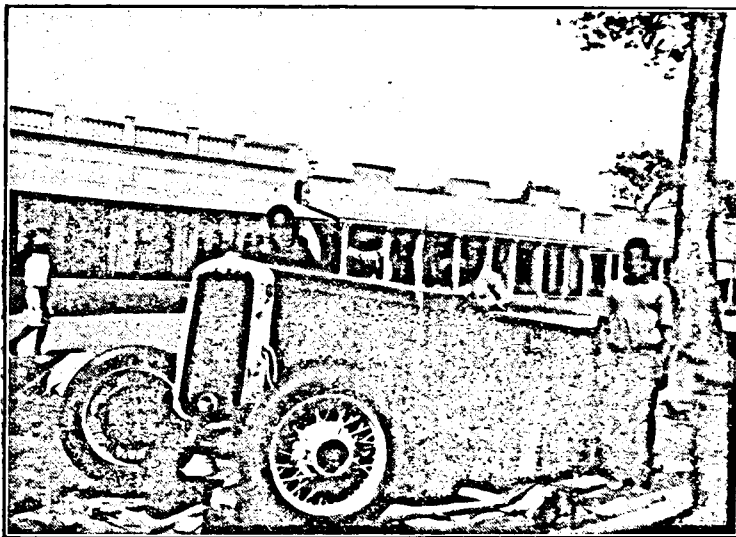


Figure 1.—The beginning of an American automobile's career in a town of Central Africa

The most effective advertising methods are outdoor posters, prominent display of articles, novelties, and direct mail. The value of newspaper advertising is but nominal, as the native and Syrian buyers rarely read newspapers.

#### ACCESSORIES

The demand for accessories is small. It is increasing, however, and in the opinion of the trade will continue to do so for several years.

Accessories most in demand are bumpers, hoods, radiators, and tire covers, bulb and electric horns, hand and mechanical jacks, lenses and lamps, tire pumps, tire gauges, and novelties.

Accessories usually are marketed by the manufacturer, selling direct to trading firms, which in turn sell through their stores and stations throughout the colonies. The recognized best method of coverage is the direct sale to the trading firms. These firms generally pay cash to the American manufacturer. Stocks are usually

carried, but in small quantities. Competitive lines seldom are handled by the same firm. The present distribution methods cover the market very effectively. The usual terms are cash.

The American share is small, owing to freight rates, financial terms extended by foreign manufacturers, and probably because the possible volume is yet considered too small for concentration.

Accessories are stocked by distributors holding exclusive franchises from automobile manufacturers and in Dakar by three independent garage operators. There are no exclusive accessory dealers.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Compared with United States standards, the local garages are poorly equipped, and slow progress is being made. All trained mechanics are brought here from Europe. The men, while far better than the natives, can not be considered as skilled mechanics.

The garage and shop equipment most needed are those tools designed for particular makes of automobiles, such as speed tools and wrenches, electric drills, valve grinders, arbor presses, special aligning tools for wheels, connecting rods, etc.

In those garages of distributors representing automobiles of American manufacture there is well over 50 per cent American equipment of the large tool class being used. Smaller tools are imported from Europe. No equipment is made locally. Such tools as wrenches, vises, anvils, drills, lathes, and dies usually come from France. No special garage equipment is used.

Nothing restricts the use of American equipment. The reason that there is such little garage equipment in use can only be explained by the fact that those responsible for garage operation may not yet be sufficiently aware of the advantages of such equipment. Furthermore, the colonies are still considered backward as far as the automobile business is concerned.

Electric current is available in all the large centers where garages are found. The rates are considered high, about 12 cents per kilowatt, and no commercial rates are given.

Tires are changed in most cases by hand with hand tools. There are very few tire repairing shops in the district. Those that exist are operated generally by automobile distributors who have the exclusive representation of some make of tires.

Garages are operated almost exclusively by automobile dealers. In Dakar there are three independent garage operators.

This equipment is marketed much the same way as accessories—by the manufacturer selling direct to a trading firm which, in turn, sells through its numerous stores and stations throughout the colonies. The recognized best method of coverage is the direct sale to the trading firm. Stocks are usually carried but in small quantities. The present method of distribution covers the market satisfactorily.

In the absence of a direct American traveling representative, the best selling method is by contact with the New York representative or New York commission house representing the larger trading firms doing business in French West Africa. When one trading firm has an exclusive representation, the distribution methods have been found, generally, to be satisfactory.

Best terms for selling to this market are cash. In the case of a large and financially stable trading firm, credit may be extended without undue risks.

There is a growing appreciation of the well-equipped and well-organized garage.

High freight rates from the United States, the preferential tariff in six colonies in favor of French products, and the inferior development of the automobile business will continue to delay the concentration by American manufacturers on this market in accessories and equipment lines. Replacements, however, are bound to be of frequent occurrence in this district, where the average automobile is subjected to very hard use.

## GAMBIA

Consul G. E. Willson, Lagos, Nigeria

Motor-vehicle registrations as of January 1, 1931: 86 passenger cars; 4 busses, 170 trucks, 32 motorcycles.

### REPLACEMENT PARTS

It is estimated that the United States supplies about 33 per cent of the demand of replacement parts, accessories and garage equipment, being surpassed only by France. Only the United States, France, and the United Kingdom have any appreciable share in the business.

Replacement parts most in demand are bolts, fan belts, spark plugs, springs, brake lining, piston rings, body upholstery material, rims, and generators.

Distribution is made almost entirely by automobile dealers and is limited to replacement parts of cars which they handle. There is no dealer of any consequence handling "imitation" parts; dealers handling cars of different nationalities supply the replacement parts for their units. The volume of sales of American replacement parts depends entirely on the number of American cars in the territory.

Gambia is but a narrow strip of land along the Gambia river. Bathurst is the only important distribution point.

This trade usually prefers real leather or a good grade of artificial leather for upholstery. Owing to the climate chromium is preferred to nickel plating, if possible over brass.

Only right-hand drive cars are permitted in Gambia.

The managers of the African branches of the large firms indent or order to the head offices in Europe which do the actual purchasing.

Advertising is confined almost entirely to newspapers. The Gambia Outlook and Senegambian Reporter, published in Bathurst, is the leading newspaper of the country.

### ACCESSORIES

The accessory trade can not be of great importance.

Owing to low prices of peanuts, the only valuable crop of Gambia, there is less money in the country than there was two years ago. This factor has lowered sales, particularly of such accessories as are

not essential to the operation of the car. The market depends upon the natives who constitute 99 per cent of Gambia's population.

Accessories most in demand are bumpers, bulb horns sounding two or more different musical notes, hand jacks, tire pumps and tire gauges. There is a demand, though not great, for windshield cleaners, both hand and electric.

America has a good share of the trade in such accessories as may be classified as standard equipment.

Accessories are marketed in the same manner as replacement parts, by dealers who are expected to handle the accessories supplied by the manufacturer whose cars he is selling. Most of the business is in the hands of automobile and truck dealers.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Considerable progress has been made during the last few years in providing automobile service facilities; though fair accommodations are now available only in Bathurst.

Articles most in demand are those in most common use, such as garage tools, jacks, oil and grease guns, tire-repairing machines and valve grinders. Gasoline pumps and oil-dispensing pumps are not used in Gambia. Gasoline and oil are purchased in tins.

The small volume of business and poorly trained employees restrict the use of mechanical equipment.

All the larger and better-class garages are owned and operated by automobile dealers.

Bathurst at the mouth of the Gambia River is the main distributing center. The country has no railways, but the Gambia River provides a water route by which the whole country may be served.

Hand tools are used in repairing tires. Tire repairing is done by car owners themselves or repair shops.

Well-trained white mechanics are provided as foremen. There are few good native mechanics, and the servicing leaves much to be desired.

There is no urgent need in Gambia for better or more modern service in garage equipment. Good mechanics are more needed than anything else.

#### GOLD COAST

**Present Demand for Replacement Parts Good, Accessories Slight, Service Appliances Fair—American Participation from 40 to 80 Per Cent of Market Requirements**

*Assistant Trade Commissioner Carl E. L. Gill, Accra*

Motor vehicle registrations as of January 1, 1931: 2,358 passenger cars, 13 buses, 4,987 trucks, 824 motor cycles.

#### REPLACEMENT PARTS

The native driving a truck in this territory pays little attention to the care and upkeep of his machine. Consequently, many of the parts are carelessly injured. In addition, clay roads to outlying cocoa areas have deep ruts, which subject the car parts to certain

strain. These factors producing hard wear and tear make for a good market for replacement parts in the Gold Coast Colony.

Practically all items are in demand including ball or roller bearings, bolts, brake lining, bushings, clutch facing, chains, driving or timing chains, fan belts, spark plugs, springs, valves, radiator caps, radiator cores, pistons, piston pins and rings, body hardware, gears, pinions, drive shafts, steering wheels, frames, shims and shim stock, starting and lighting generators, rims, and rim parts.

American participation is about 80 per cent in replacement parts, with practically no foreign competition in parts for American cars. There is no local industry.

Special parts and accessory dealers, and automobile dealers, are the leading channels for the distribution of parts in this colony, with the latter handling 80 per cent of the trade. The trend seems to be more and more in favor of purchasing from a recognized automobile dealer, who knows the peculiar requirements of the vehicle requiring repairs.

Thirty days net seems to be the general term offered by American and foreign distributors to the dealers here.

Accra, capital and trade center of the colony, is the leading distribution center. Kumasi distributes for Ashanti and the northern territories; and Sekondi for the western and part of the central province.

Circularizing the trade by catalogs and pamphlets seems to be the most effective method of introducing a particular line in the absence of a traveling representative of the manufacturer. To the prospective purchaser, the reputation of the motor car and of the dealer influences selection.

#### ACCESSORIES.

The accessory demand is rather light. The average African on the West Coast is interested merely in the bare necessities for his machine, and he regards extras in the way of accessories as a useless expenditure. The demand remains fairly constant from year to year.

Accessories which seem to be most in demand include bulb and electric horns, hand and mechanical jacks, lenses, lamps, license plates, luggage carriers and trunk racks, mirrors, tire pumps, tire gauges, seat covers, hand and electric windshield cleaners, and windshield wings.

It is estimated that about 40 per cent of the accessory imports come from America.

While there is no domestic competition in this field, the foreign competitor has made distinctive inroads in the accessory market. Many dealers have found it advantageous to purchase bulb horns from France; and lamps, top cloths, luggage carriers, mirrors, license holders, electric and bulb horns from Germany. The explanation is that a satisfactory article, though cheap in manufacture, undersells the American product. The native considers price first and quality second in the matter of accessory purchases.

Liberal price reductions are offered by continental manufacturers of accessories, and in the market where there are no representatives of American concerns, price determines where the business will go.

Accessories are usually marketed through an exclusive distributor purchasing on his own account. This method, and that of selling direct to the dealers, are the best for marketing accessories in this area. Small stocks are usually carried, but these are limited to the most important of the accessories. Competitive lines are frequently handled by the same distributor. The present method of distribution seems to be the most satisfactory for conditions as they exist.

Terms are 30 days net with occasional high interest charges after that period.

Car agencies are the chief dealers who distribute accessories. The two parts dealers handle some accessories, though their patronage seems to be small.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Most of the automobile dealers establish service stations in any area in the colony where they have sold from 15 to 20 motor cars.

About 60 per cent of the equipment in use in garage and service stations is of American make. German and English machinery, however, is getting a good share of the business here. The former country enters the market on the basis of price; the latter through quality and sentiment.

Items of garage equipment which are purchased from foreign countries include: From Germany, auto lifts, battery chargers, brake-testing machines, cylinder-boring machines, cranes, garage tools, hydraulic and mechanical jacks, high-pressure chassis-lubricating and grease-dispensing systems, oil and grease guns, oil-dispensing pumps, portable drills, wrenches, and wheel-alignment equipment; from Switzerland, welding outfits; from Great Britain, towing and salvaging equipment.

Lathes, drills, aligning and rimming material, power saws, and shaping and milling machines are needed in this area. The demands at present are not very great, owing chiefly to a depression caused by withholding of cocoa and a fall in prices.

The cost of operation of mechanical equipment largely prevents its use. The rate offered by the Government electric supply department is 5 pence per unit for power.

The present method of changing tires is by hand tools. Most of the tire repairing is done in the repair shops. All the garages in the larger towns are maintained by automobile dealers. There are occasional independent repair shops along the roadside, but these are not sufficiently important to consider as prospects for the purchase of garage and service equipment.

European mechanics attached to the various automobile agencies train the natives for repairing and servicing of automobiles. A Swiss concern here has eight European mechanics distributed throughout the colony. It is believed that within the course of two years adequately trained mechanics will be available throughout the Gold Coast.

In the absence of a direct American traveling representative, it is believed that the employment of a manufacturer's agent here is the best method of selling this type of equipment. The present methods of distribution are regarded as satisfactory.

The best terms of selling to the market would be to extend credit for 90 days to reputable branches of European houses. To the average Syrian and African, cash or documents against payment are the only terms which can be recommended.

The logical distribution areas of this colony are Accra for the eastern and part of the central province and the Accra district; Kumasi for Ashanti and the northern territories; and Sekondi for part of the central province and the whole of the western province. Koforidua might be considered as a desirable point for distribution throughout the eastern province, but as most of the sales originate in Accra, on the seaboard, that town does not play an important rôle as a distributing center.

There does not seem to be any growing recognition in this colony of the need of better and more modern garage and service equipment. The demand seems to be steady, although there are fewer vehicles on the road to-day than there were two years ago.

## LIBERIA

### Limited Purchasing Power and Unfavorable Economic Conditions Tend to Restrict This Market to One of Limited Demand

Vice Consul Carleton Wall, Monrovia, Liberia

Motor-vehicle registrations as of January 1, 1931: 122 passenger cars, 150 trucks, 10 motor cycles.

### REPLACEMENT PARTS AND ACCESSORIES

It is estimated that about 90 per cent of the automobiles registered in Liberia are of American origin and, therefore, require American replacement parts and accessories. Trucks and equipment in the same category average 100 per cent. However, the purchasing power of the people is strictly limited, even among the small group of civilized Liberians and foreigners, a small percentage of whom are generally considered as prospective buyers of import articles of this nature. The price factor is also an important consideration, as is the small amount of road mileage.

Economic conditions continue to be bad, owing largely to the decreased market price of this country's chief exports, the consequent decline of revenues, and the existence of an unfavorable trade balance. Until this situation is relieved it is not assumed that any motor vehicles and equipment will be imported.

Practically all replacement parts and accessories are in demand in Liberia, except car heaters, radiator shutters and shields, taximeters, and nonskid chains. However, the ability or desire to pay for them enters into the question. Most of the motor vehicles on the road are not yet completely paid for.

There are no specialized merchants in this country, all the trade being handled by several large general trading companies whose principal offices are located abroad. The usual terms are cash against documents in London, Hamburg, or Paris, or in some cases 30-day drafts. In dealing with individuals in this country, cash with order is strongly recommended.



Monrovia and the Firestone plantations are the leading distributing centers in Liberia, where there are located two automobile dealers who also operate garages.

There is no local manufacture of parts or accessories. American products of reasonably good quality, low price, and of every description, enjoy almost unlimited preference.

There are practically no means of advertising, the newspaper circulation being extremely small and carrying only a few advertisements of a local character. Personal solicitation by the clerks in the trading companies is virtually the only method of introducing a product into this country.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Along with the growth of the market for automotive vehicles, there sprang into existence three small garages, which are operated on a limited scale. Their staffs of mechanics consist of one expert supervisor and any number of Liberian apprentices. Since they are also dealers in American automobiles, these garages necessarily use American equipment.

There is no local manufacture nor foreign competition. American equipment should find a profitable place in this field when the demand increases.

Practically all garage equipment is needed in Liberia, but the Liberians have not yet learned the value of constant upkeep of their cars and trucks.

The high cost of imported mechanical apparatus, as well as the absence of any sort of power, electrical or otherwise, precludes the demand for such articles for the present. Tire changing is effected by hand tools, and in every case by the chauffeurs or drivers of motor vehicles. Practically no tire work is done in repair shops.

#### MOROCCO, FRENCH PROTECTORATE

**Good Demand for Replacement Parts—Service Appliance Requirements Increasing—Accessories Unimportant—American Participation in Garage Equipment Trade Substantial—European Competition Strong in Parts and Accessories**

*Consul Parker W. Bahrman, Casablanca, Morocco*

Motor-vehicle registrations as of January 1, 1931: 11,797 passenger cars, 1,001 busses, 3,267 trucks, 1,000 motor cycles.

The market for replacement parts, garage, and service-station equipment in the French Protectorate of Morocco is characterized by its recent development and comparatively rapid expansion. Prior to the establishment of the protectorate the country was without roads or motor transportation. Little advance was made during the World War period. Since 1918 the building of roads and the establishment of an efficient system of communication throughout the protectorate, coupled with the steady influx of capital from Europe, has multiplied many times the business tempo of the country, resulting in a constantly expanding market for motor vehicles and allied equipment.

## REPLACEMENT PARTS

Replacement parts most in demand are springs, spark plugs, bushings, bolts, and ball and roller bearings.

The tendency in the past has been for the original distributor to supply springs for the particular make of car. The tendency, however, at the present time appears to be to obtain springs for all makes of cars from the spring manufacturer offering the most favorable prices and terms. As a result, a large share of the trade is now in the hands of French, German, and Italian firms which manufacture springs for all makes of cars.

American spark plugs predominate in the market. They are said to be lower in price and of better material than those manufactured in France, Germany, and Italy.

Standard stock sizes of ball and roller bearings in American units of measure are supplied for American cars by the original distributors. Stock metric sizes for foreign cars are almost exclusively of European manufacture.

Bolts are supplied principally by France and Germany and they are also manufactured locally. Bushings are produced by local manufacture for the most part from brass imported from France. French brake lining also enjoys the largest sale.

There is keen competition in the sale of standard replacement parts, especially in such items as spark plugs, bearings, brake lining, and springs. The European manufacturers generally have a distinct advantage in this market in that they are much closer. Their agents or representatives are also usually on the ground and are much more actively interested in promoting the sale of their merchandise. The general trade in Morocco necessitates, in accordance with a long-standing practice, the extension of credit. While there is a tendency as modern business methods develop to abandon this practice, it still prevails to such an extent that the granting of credit is frequently the means of obtaining business. European manufacturers have a tendency to respond to the particular requirements more readily than American producers.

The principal distributors of replacement parts are the importers of a particular line of motor vehicles. These agents in turn distribute parts to local distributors, garages, accessory dealers, and tire dealers who act as distributors in rural centers. The tendency, however, on the part of the accessory dealer and the garages is to obtain parts from other than the original manufacturer for the reason that standard parts may be obtained from European producers or from independent manufacturers on better terms.

Casablanca is the chief center of distribution.

The greater part of the business of the country is done through commercial bills of acceptance which vary from 30 to 90 and even 120 days. American manufacturers, as a rule, are unfamiliar with this practice and their connections are not sufficiently well established to justify them in conforming to the local customs. Consequently, their terms are usually confirmed credit or cash against documents. This disadvantage in the market is still further accentuated by the fact that there are no direct banking connections with the United States, while there are a number of branches of European banks in Casablanca through which commercial bills may be discounted.

The principal advertising, and perhaps the most effective method, is by billboards. The local French press, which has a wide distribution throughout the country, is also used successfully.

#### ACCESSORIES

The demand for accessories is gradually decreasing as the result of the growing tendency to completely equip motor cars with standard accessories.

All standard accessories are in limited demand for replacement purposes. The items of special interest include hand and electric horns, the former being in demand principally by taxicab drivers; glare eliminators; lamp lenses and bulbs; tire covers, which are distributed, for the most part by tire manufacturers, for advertising purposes; and head lamps, the demand being confined almost exclusively to replacements. European lamps are more in demand than the American because they are more powerful. It was formerly the practice for purchasers of American cars to replace the lamps with European lamps. Now, however, the American product is much more generally used.

There is a light demand for pumps, rear-view mirrors, shock absorbers, speedometers, heat indicators, windshields, visors, windshield wipers, license plates, seat covers, windshield wings, lubricating systems, jacks, and taximeters. License plates, seat covers, and windshield wings are manufactured locally. The demand for lubricating systems is increasing with the expansion in the sale of motor cars. At present the principal sale is of American lubricating systems. Theft-proof locks, chains, radiator shutters, and car heaters are not required.

Accessories are distributed by small accessory dealers, who, for the most part, import directly their requirements. In the rural districts the distributors of tires usually carry accessories. Dealers either buy their accessories from an agent or from the direct representative of European accessory houses or purchase them direct from the accessory manufacturers.

Accessories are handled by local retailers who, for the most part, purchase their supplies from the traveling representatives of European accessory manufacturers, who call direct upon the trade in the same manner that the trade is visited in the United States by salesmen. American manufacturers are not represented in this manner. Consequently, until the entire market conditions change, they will continue to find themselves at a disadvantage in the distribution of their products. Until such time as there develops in this district regularly constituted wholesale firms which import on a large scale, there appears to be very little likelihood that American accessories will enjoy an extensive market.

European manufacturers and distributors of accessories keep in close touch with this market through their sales representatives. Consequently, they are in a position to offer more favorable terms than American manufacturers. Terms of credit are identical with those mentioned under the heading of replacement parts. In the absence of direct supervision and direct banking facilities, American manufacturers would hardly be in a position to meet this type of

competition. The only practicable terms which they would be justified in granting at the present time would be cash against documents or confirmed credit.

#### GARAGE AND SERVICE-STATION EQUIPMENT

In view of the recent development of the market and its limited scope, service stations as understood in the United States do not exist. With the expansion in the sales of motor cars and the increased demand for better service, there is a slow trend toward the use of modern service-station equipment. It is believed that the sales will gradually expand.

This is a field in which American products for practical purposes may be classed as noncompetitive, inasmuch as they appear to be better adapted to conditions which are developing in this country than the equipment supplied by European producers. There is no local manufacturing. The careful attention of American manufacturers to this market and the proper sales efforts will undoubtedly develop good results.

The principal foreign competition is in small machine tools, wrenches, reamers, paint-spraying equipment, welding tools, air compressors, battery chargers, chassis-lubricating systems, and gas pumps.

Garage equipment most in demand at the present time includes electric drills, cylinder-boring machinery, hoists, auto-lifts, washing machines, and garage tools. The present limitation in the distribution of these products is primarily due to the low quality of service offered and the lack of competition on the part of properly equipped service stations.

Electric current is generally available for garage purposes. The present method of repairing and changing tires is by hand. Mechanical tools are not generally used. There are, however, a number of tire specialty shops which are equipped with modern tire repairing equipment.

The largest garages are operated by automobile distributors. The best service available is now supplied by two independent garages recently established.

There is only one principal distribution center, namely, the city of Casablanca, which is the center of the banking, shipping, and transportation systems of the country.

One of the greatest handicaps in the utilization of modern service-station equipment is the lack of trained personnel. It will still require some time before expert native mechanics can be properly trained.

Distribution of garage and service-station equipment is limited in the same manner as the distribution of accessories. The only advantage that American products have is that a considerable proportion of the type of the required equipment is not available from European sources. As stated before, European firms maintain close contact with this market and are consequently able to supply the needs more readily and more effectively than American manufacturers.

There is apparently no prospect in the change of the situation which would be advantageous to American manufacturers until

such time as general marketing conditions develop, unless American producers can consign materials to Casablanca through their own agents for eventual distribution to accessory dealers and garage owners and operators.

Terms of credit are the same as those given under the discussion on accessories and replacement parts.

The market for motor cars and allied products in this district is limited by its comparatively recent development and the relatively few cars distributed up to this time. It is naturally supposed, however, that with the economic progress of the country, there will be greater distribution of motor vehicles which will eventually result in the establishment of wholesale firms specializing in accessories and in the distribution of garage and service-station equipment. There is a constantly growing demand for more efficient service to motor cars.

### MOROCCO, INTERNATIONAL AND SPANISH ZONES

**Fair Demand for Replacement Parts, with Accessories and Service Appliances Limited—American Participation Fair in Replacement Parts and Service Appliances, Small in the Accessories Trade**

*Consul Donald F. Bigelow, Tangier, Morocco*

Motor-vehicle registrations as of January 1, 1931: International zone, passenger cars 384, busses 58, trucks 192, motor cycles 66; Spanish Morocco, passenger cars 1,750, busses 353, trucks 1,502, motor cycles 191.

This section covers the international zone of Tangier and the Spanish zone of Morocco. The former is 225 square miles in area and has a population of approximately 60,000 persons. The greater majority of these reside in the seaport city of Tangier. Spanish Morocco includes the Spanish zone of the Moroccan Empire and the Spanish free-port cities of Ceuta and Melilla, which are situated on the Moroccan mainland, the first being directly opposite Gibraltar and the second 130 miles to the east in the direction of Algeria. Ceuta and Melilla, together with Tangier, are the principal points of entry to the Spanish zone proper, and although lying within the economic sphere of the Spanish zone, are not politically a part thereof. The population of the Spanish zone is estimated to be approximately 750,000.

Although Morocco is divided into three zones (the French, Spanish, and International) it is nevertheless an entity for customs purposes. Its customs régime has no relation to those of France and Spain. The import duty on automobiles and all types of replacement parts, accessories, and garage and service-station equipment is 12½ per cent ad valorem. Such articles imported through a port of entry to one of the zones may be shipped into the other zones without repayment of duty.

### REPLACEMENT PARTS

It is only during recent years that Tangier and Spanish Morocco have offered a market of any importance for replacement parts. Owing to the poor condition of the roads and the state of insecurity

prevailing in the greater part of the Spanish zone until 1926 and 1927, the use of motor vehicles was previously restricted to the principal towns in this region: Tangier, Ceuta, and Melilla. The construction during the past few years of excellent highways and the pacification of the Riff mountaineers by the Spanish forces have given an impetus to trade in motor vehicles, and both the years 1928 and 1929 witnessed a brisk market for all types. A number of motor-bus services were organized in 1928 to take advantage of the new roads linking Tangier with the cities in the French zone and with nearby towns in the Spanish zone, and the use of motor trucks for interurban transportation of merchandise developed at the expense of the railways. The demand for replacement parts necessarily followed the distribution of motor vehicles.

Replacement parts most in demand are brake linings, springs, spark plugs, bolts, ball and roller bearings. The brand of brake lining with the largest sale is probably Ferrodo, made in England and France. However, attempts to introduce American brands in Tangier are meeting with success. The bulk of the replacement springs now come from French and German manufacturers who are said to be able to supply springs to fit nearly all types of American cars at prices ranging from 10 to 15 per cent under those quoted by American makers and jobbers.

Spark plugs of American manufacture are favorites in this market, and at least 50 per cent of this demand is supplied by a single American make. Ball and roller bearings are supplied in standard stock sizes for American cars by the original distributor and also by European firms, which put out the same form of bearing at a considerably reduced price—in some cases as much as 40 and 50 per cent below the American price quoted. Bolt makers in France and Germany and in Casablanca supply the limited requirements for standard types. Special types are furnished by the makers of the cars for which they are required.

Competition is especially keen in the sale of such parts as spark plugs, bearings, brake lining, fan belts, bolts, and piston rings, which are supplied by manufacturers and accessory houses for nearly all makes of cars. The European manufacturer catering to the demand for this type of merchandise has a distinct advantage in Morocco in that he is closer to the market and has direct agents or representatives on the ground who travel and actively canvass the trade. European makers, furthermore, are disposed to adopt the prevailing practice of extending credit facilities.

Although there is a certain preference shown in the French zone for articles of French manufacture, there is no such partiality shown in either Tangier or Spanish Morocco. American replacement parts are in good favor and are generally regarded as superior to parts made in France and Germany.

Distribution of parts is principally by the importers of motor vehicles. The direct importers who are the primary distributors of motor vehicles in this territory usually carry a sufficient stock of parts to meet the demand. These agents, in turn, distribute parts to their subagents in other localities, who are generally garage keepers. Most of the local garages and tire dealers are regularly visited by direct representatives of European accessory houses.

Such firms often list various articles of American manufacture, the high prices of which reflect the imposition of import duties in Europe, in addition to the fixed 12½ per cent ad valorem Moroccan duty and reshipment charges, generally from France, to Casablanca and thence to Tangier.

An example of such indirect importation is the recent order of a small supply of fan belts made in Minnesota. These had been ordered from the traveling representative of a French accessory house located at Marseille. The goods were shipped to Marseille, from there to Casablanca, and thence to Tangier. The cost of the merchandise shipped by parcel post from Minnesota to the dealer in Tangier would have been little more than one-half the ultimate price paid as a result of this roundabout system of distribution.

These factors—the excellent direct steamship service by American vessels between New York and Moroccan ports (including Tangier, Ceuta, and Melilla), the expansion of the automobile market in Morocco, and the continued or growing popularity of American makes of cars, replacement parts, accessories, and service appliances, as well as the absence of tariff discriminations and the complete lack of domestic manufacture of such articles—would seem to favor the establishment in Morocco of an American distributing agency or jobbing house handling American products exclusively. It is not meant to imply that such a set-up should be made at this time. The volume of business which a firm might expect to build up depends, of course, upon a great many factors which would require careful analysis not only of local conditions but also of comparative cost of manufacture of similar articles in the United States and Europe.

European manufacturers as a rule extend better terms of credit than American companies. Both French and German manufacturers of parts and accessories extend at least 30 or 60 days credit to well-established firms, not as a concession but as a regular practice. The greater part of the business of this part of Morocco, as in the French zone, is done through sight drafts at 30 to 90 days. In this connection it may be stated that considerable losses have been incurred by European manufacturers whose customers in Morocco have recently been suffering from the general depression.

The main distribution center in Morocco is the city of Casablanca, in the French zone. In practically all cases where a single distributor is appointed for the whole of Morocco such distributor is located at Casablanca. Northern Morocco, including the international and Spanish zones, the areas treated in this section, falls into three distinct market areas:

(1) The small international zone surrounding and including the city of Tangier and the extreme western fringe of the Spanish zone, lying between the international zone and the French zone, in which the towns of Larache and Alcazar-Kebir are located. This area is in convenient communication by railway and fast motor bus and truck service with Casablanca. This territory is generally handled by direct agents or subagents located at Tangier.

(2) The middle-western part of Spanish Morocco, embracing the free port city of Ceuta and Tetuan, the administrative center of the Spanish zone of Morocco. These cities can be most effectively served by shipments direct to Ceuta. They are not in rail communication

with Tangier or the towns in the extreme western portion of the Spanish zone and are separated by 126 miles of mountainous country from Melilla.

(3) Melilla, situated in the extreme eastern part of the elongated Spanish zone, is not easily accessible from Casablanca, Tangier, or Ceuta. No facilities as yet exist for the transport of merchandise between Melilla and the cities just mentioned, except by sea. Melilla depends, rather, upon Malaga and Barcelona, in Spain, with which places it is connected by frequent boat services. It is also in direct connection with New York. Being a free port, automobile and accessory dealers in Melilla have been especially desirous of dealing directly with jobbers or manufacturers in the United States rather than have their requirements supplied from stocks in Spain on which customs duties have been levied, the ultimate cost of which is further increased by supplemental commissions and higher freight charges.

It is the opinion of local dealers that newspapers are of little use for advertisement of replacement parts and accessories. Window displays are effective in attracting attention, but probably the best way of advertising is through the use of billboards.

#### ACCESSORIES

The same general conditions apply to accessories and replacement parts. All standard accessories are in limited demand for replacement purposes, the principal ones being horns, tire covers, lamp bulbs, head lamps, and adjustable driving lamps. The demand is greater for bulb horns than for electric ones. The former are used principally by taxi drivers and can be purchased at retail in Tangier for prices ranging from \$1 for separate horns to \$4 for horns with attached tubes and elbows. Tire covers are distributed principally by tire manufacturers and sold at cost for advertising purposes. The principal furnisher of lamp bulbs is the Phillips company in the Netherlands. Prices quoted are said to be nearly 50 per cent less than those asked by American manufacturers. Drivers in Morocco prefer a head lamp throwing a long beam. Not infrequently they substitute special European lamps for those with which American cars are equipped at the factory. There is a small demand for adjustable driving lamps which are supplied exclusively by French manufacturers, since American firms seem unable to compete with their prices.

There is a small demand for wrenches, pumps, rear-view mirrors, shock absorbers, wind shields, license plates, seat covers, grease guns, jacks, and taximeters. License plates and seat covers are made locally. There is no demand for chains, radiator shutters, or car heaters. Theft-proof locks are not required. There is a certain amount of pilfering of small unsecured articles from parked automobiles, but theft of tires or automobiles themselves is so infrequent that no special safeguards need to be taken.

Sales of American accessories are small, being adversely affected by the distance of the United States from this market, and the keen competition of European manufacturers, who are able to supply all customary accessories. These are generally bought in small lots shipped by parcel post. Goods can be shipped in this manner from



France C. O. D., a facility not available to American firms. A local dealer states that he finds that parcel-post costs on packages shipped from the United States are about five times as much as the postage cost would be on packages of the same weight mailed from France. Shipment from the United States to any port in Morocco should never be accompanied by French consular invoices. Shippers not infrequently make the error of assuming that such are necessary and go to an unnecessary expense, which is usually charged to the recipient, much to his dissatisfaction.

Most of the garages and tire dealers who sell automobile accessories are visited regularly, generally once a month, by representatives of importing dealers in Casablanca. The retailers of accessories also import on their own account some of their requirements. The sale and distribution of accessories is carried out substantially as in the United States. A jobbing firm in Casablanca regularly visits the trade here. These jobbers handle a certain amount of American-made goods, the cost of which generally reflects a number of commission charges and the carriage charges for indirect shipment via Europe.

So far as is known, no direct representative of any American wholesaler of accessories or replacement parts has yet undertaken to visit the trade in Morocco. Dealers, especially those whose business is small, prefer not to order only one or a few items from the catalogues of manufacturers when they can give a bulk order covering many items to the traveling representative of an accessory house, even though individual items may be quoted at considerably more than the factory list prices for the same article. The American manufacturer is handicapped in this connection, not only by the small volume of demand in this region but also by the fact that the minimum freight charge for a package shipped from New York to Tangier is in the neighborhood of \$10 and parcel-post charges on shipments to the United States are considerably greater than corresponding shipments from France.

The credit terms extended for accessories are the same as those for replacement parts. It is, of course, true that the expense on the part of a seller giving credit is reflected in the price quotations. The buyer with adequate capital usually has no objections to paying for goods ordered upon their receipt, provided he is satisfied that the quotations have not been fixed with the view of covering carrying charges for a more or less extended period. In this respect quotations of American manufacturers and jobbers seem to make a good impression.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Until recently there has been almost a complete absence of modern garage and service-station appliances. Exceptions are now being noted, although as yet only the more essential devices are being introduced.

Service stations as known in the United States do not exist, but with the expansion in the sales of motor cars and the increased demand for more efficient rapid service, there has been an increasing interest on the part of garage owners in the possibilities afforded by modern service-station equipment.

There is only an intermittent demand in small volume for such articles. A potential demand undoubtedly exists for small machine tools, wrenches, reamers, paint-spraying equipment, welding tools, air compressors, battery chargers, and gasoline pumps.

The larger garages and those of a better class are generally operated by car dealers representing one or more manufacturers.

Garage owners find difficulty in finding trained personnel. The average native Moorish worker is generally unresponsive to training in the use of mechanical tools. Most of the mechanics employed in local garage workshops are Europeans—Spaniards in most cases.

American service equipment has an excellent reputation, but so far the lack of sufficient volume of business has prevented garage owners from investing funds to any great extent. American equipment is being introduced into the more prosperous French zone in Morocco, and the development of sales of similar labor-saving devices will probably follow in Tangier and in Ceuta, Melilla, and Tetuan.

As yet there is a complete absence of appliances such as car-washing machinery, brake-testing machines, cylinder-reconditioning machinery, towing and salvaging equipment, wheel-alignment equipment, auto lifts, and polishing machines.

A few air compressors, battery charging and testing apparatus, cranes, gasoline pumps (by the distributors of gasoline), garage jacks and presses, reamers, wrenches, tire-service equipment, oil and grease guns, and paint-spraying equipment have been introduced.

There is a certain amount of foreign competition in small machine tools, wrenches, reamers paint-spraying equipment, welding tools, air compressors, battery chargers, and gasoline pumps. Garage tools are usually supplied by French firms at a considerably lower price than those offered by American manufacturers. American wrenches are stocked in the principal hardware stores. The best types have recently been copied by French and German firms and are sometimes put up in boxes with English lettering, which might be regarded as indicating that they are of American manufacture.

There is no garage equipment manufactured in Morocco and there is no likelihood of the development of any domestic production.

The present restriction on the use of mechanical garage and shop equipment is primarily due to the small volume of business which does yet hardly warrant the expense of installation and the small number of clients served by individual garages. During the last two years the business depression has also tended to prevent garage owners from making new commitments. Car owners on the whole are curtailing expenses with the result that only the strictly necessary amount of repair work is being done.

Electric current is generally available for garage purposes, but tires are invariably changed by hand. There are no special tire-repairing shops in Tangier, nor, so far as is known, elsewhere in this district. A single tire and vulcanizing plant exists in this city.

The distribution of garage and service-station equipment is limited in the same manner as is the distribution of accessories. The only advantage with reference to American products is that some articles are not available from European sources.

The main distribution center is the city of Casablanca in the French zone. The international and Spanish zones are served in part from that city. Secondary distribution is usually from Tangier for the international zone or the extreme western part of the Spanish zone, Ceuta for that city and Tetuan and Melilla for the eastern part of Spanish Morocco.

### NIGERIA

**Steady Demand for Replacements, Accessories Active, Service Appliances Fair—America Leading Supplier of Parts and Accessories and Substantial Share of Garage Equipment**

*Consul G. R. Willson, Lagos, Nigeria*

Motor-vehicle registrations as of January 1, 1931: 3,100 passenger cars, 1,845 busses, 3,133 trucks, 1,864 motor cycles.

### REPLACEMENT PARTS

Replacement parts most in demand in Nigeria are bolts, fan belts, spark plugs, and springs. There is also a steady demand for brake lining, piston rings, body upholstery material, rims, and generators. Radiator caps are kept in stock by the largest dealers. Other replacement parts are needed occasionally but do not have the steady demand as those just mentioned.

Since the World War the United States has participated very actively in the trade in motor parts and accessories in Nigeria. At present Nigeria imports more of such merchandise from the United States than from all other countries combined. This is due largely to the good demand for American cars and trucks, which made up approximately 33 and 83 per cent, respectively, of the imports into Nigeria during 1930. Nearly all dealers handling American cars sell parts for them, but the volume of sales depends entirely on the number of American cars in the territory. Just at present the English Morris car is being pushed vigorously, with the resultant increased demand for replacement parts for that make.

Distribution is almost entirely by automobile dealers and is limited to replacement parts of makes which they handle.

The managers of the African branches of the large firms indent or order through their head offices in Europe, usually specifying quantity, quality, and brand of articles. Information concerning discount, terms of credit, etc., is available only from the head offices.

There is only one really important distribution center in Nigeria and that is Lagos. Abeokuta, Ibadan, Kano, Aba, Calabar, and Port Harcourt are of some importance, but not to be compared with Lagos.

The local trade usually prefers real leather or a good grade of artificial leather for upholstery. Owing to the action of the climate, chromium is preferred to nickel plating, and where practicable, chromium over brass.

Nigeria has a very peculiar climate. It is moist during most of the year. However, during the time from November to March, dry north winds occasionally sweep southward from the Sahara. During this period all objects which have been absorbing moisture

during the rainy season, dry out, shrink, and crack. This action has a tendency to loosen the spokes of wooden wheels, and a good deal has been said here about the superiority of disk, wire, and metal wheels. Such wheels may be preferable, but there are many cars with wooden wheels in Lagos which appear to be standing up very well.

Magnetos are considered an important part of the equipment of English cars and nearly all are provided with them.

Nearly all cars are right-hand drive, and there is a possibility that legislation may be passed barring other cars from entering the country.

Advertising is confined almost entirely to newspapers. Two of the largest companies frequently carry full page advertisements in the leading paper, the Nigerian Daily Times.

### ACCESSORIES

There is a limited but active demand in Nigeria for motor accessories. The demand is not as good as it was two years ago, since there is now less money in the country. Of Nigeria's population of about 19,600,000, only between 5,000 and 6,000 are white. The market, therefore, depends upon the natives. The African likes the accessories which go with a fully equipped car and also has a taste for novelties. He spends his money freely when he has it.

Accessories most in demand are bumpers, tire covers, bulb horns sounding two or three different notes, hand jacks, tire pumps, and tire gauges. License plates remain on the car from year to year unless the owner loses the license. The African does not like colored seat covers. Covers are frequently made from a good grade of white cotton cloth and laundered as required. Lights, unless broken, usually remain as purchased with the car. Taxis in use in Lagos are ordinary touring cars and are not equipped with taximeters. There is a limited demand for wind-shield cleaners, both hand and electric.

The United States has a good share of the trade in such accessories as may be classified as standard equipment. Certain novelties such as double-sounding bulb horns are obtained principally from other sources. Competition is negligible. With the exception of seat covers made of white cotton cloth, no accessories are made in Nigeria. The automobile manufacturers furnish their own accessories to dealers. These articles are frequently made for a certain type of car. It therefore follows that while there is plenty of competition between different makes of cars there is little competition in accessories.

With but few unimportant exceptions accessories are marketed in the same manner as replacement parts by dealers who handle the accessories supplied by the manufacturer whose cars he is selling. Practically the entire business is in the hands of the large automobile and truck dealers. The largest dealers carry stocks in competitive lines sometimes handled by the same company.

This is true of the largest firm in Nigeria, which handles the makes of several American and British manufactures. They do not, however, carry competitive lines in the same store. The company has one

large store and showroom given over entirely to American cars. Replacement parts and accessories in another establishment are for its British lines. The present distribution channels are believed adequate to cover this market.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Considerable progress has been made during the last three years in providing automobile service facilities, although even now fair facilities are available only in Lagos.

The articles most in demand are those in most common use, such as garage tools, jacks, oil and grease guns, tire-repairing machines, and valve grinders. Dispensing pumps are not used in Nigeria, since gasoline and oil are purchased in tins.

About 40 per cent of the garage and service-station equipment in use in Nigeria is of American manufacture. No items are manufactured locally.

Paint-spraying equipment, polishing machines, and battery chargers are usually of American manufacture. Such other articles of garage equipment as are used are for the most part strongly competitive with American manufacture.

Lagos has four fairly well equipped garages. Wheel-alignment equipment and high-pressure chassis lubricating and grease-dispensing systems are needed, but whether they would warrant installation is a subject to which the large dealers are likely to give considerable thought before making purchases.

All the larger and better-class garages are owned and operated by automobile dealers.

Three conditions which restrict the use of mechanical equipment are the comparatively small volume of business, poorly trained employees, and the lack of electric current except in Lagos, where it is available at reasonable rates, and a few other of the larger towns.

At present hand tools predominate in changing tires, but most tire repairing is done in repair shops.

The proportion of imports brought in by firms having headquarters in West Africa is comparatively small. Some of these concerns are important, but most are petty retailers. The great bulk of foreign trade, both importing and exporting, is done by not many more than 100 firms, generally having headquarters in European cities and several or many branches in West Africa. Each branch does a wholesale and retail business in nearly all lines of merchandise. Many, but not all, buy native produce for export.

The managers of the African branches of the large firms indent or order from the head offices in Europe, which make the purchases. Though local managers do not buy directly, it is important that they become interested. This object can not always be accomplished through correspondence and mailed advertising matter. Advertising in newspapers and on billboards might be effective in creating a demand among the higher class of native consumers.

By far the best means of introducing a product is to have a personal representative of the producer visit all the principal trade centers to solicit orders and introduce advertising. Several English,

French, and German travelers regularly visit the West African coast.

A traveler who does not represent one firm alone handles perhaps half a dozen noncompeting lines. He receives a nominal salary and a good commission from each concern he represents. The English traveler usually spends six months in covering the territory from Sierra Leone to the northern Congo. It is important to interest the head office while local branches are being solicited.

Under present conditions, in the absence of a direct American traveling representative, the best selling method is through the manufacturer's agent.

At the present state of the market, distribution methods now in use are satisfactory.

Selling terms are arranged at the head offices in Europe. The few firms of any importance which have head offices in Nigeria frequently prefer merchandise sent c. i. f. Lagos on 30 days' credit.

Lagos is the main distributing center for all of the western part of Nigeria. Ships come to the dock at Lagos, which is also the southern terminus of the western and main trunk lines of the Nigerian Railway. Probably the most logical distributing center of the eastern and central areas is Aba on the eastern branch of the Nigerian Railway near Port Harcourt, the southern terminus of that branch. Port Harcourt, like Lagos, has the advantage of a good deep-water port. Other important points which might be used as subcenters are Abeokuta and Ibadan in the southern provinces, and Kane and Zaria in the northern provinces.

There is as yet no urgent need in Nigeria for better and more service and garage equipment. Good mechanics are needed more than anything else.

### PORTUGUESE EAST AFRICA

**Good Demand for Replacement Parts; Accessory Requirements Limited; Sale for Garage Equipment and Service Appliances Small—Use of American Products Predominates in This Market**

Consul Alfred D. Cameron, Lourenco Marques

#### REPLACEMENT PARTS

In considering Portuguese East Africa, it should be kept in mind that the European population is only 17,842 and the Asiatic population 9,371, most of the latter being engaged in pursuits which do not require nor provide sufficient income for motor transportation.

The number of motor vehicles in circulation has increased tenfold during the past three years, while more than half of the vehicles now in circulation are less than four years old, from which it may be inferred that the average car, with three years' performance to its credit under trying tropical conditions, needs substantial service.

Gaskets, plain bearings, brake and clutch lining, fenders, spark plugs, and batteries are the parts needing most frequent renewal. Only a few years ago springs would have headed the list, but roads have been considerably improved and now compare favorably with those of the adjacent territories in British South and East Africa.

American participation accounts for probably 90 per cent of the replacement parts sold in this market. European products offer

slight competition in ball bearings from Sweden, British brake linings, German and British spark plugs, and British rims and rim parts. South Africa also produces body hardware and upholstery material and leads the market in this line.

With the exception of the items just mentioned, other lines of replacement parts are exclusively in American hands, except such as require exact duplication of the original equipment for European cars made with metric measurements. Steering wheels and automobile frames are replaced exclusively from the stocks of the original manufacturers.

Replacement parts are furnished principally by the garages acting as local representatives for the motor cars. However, the most suc-

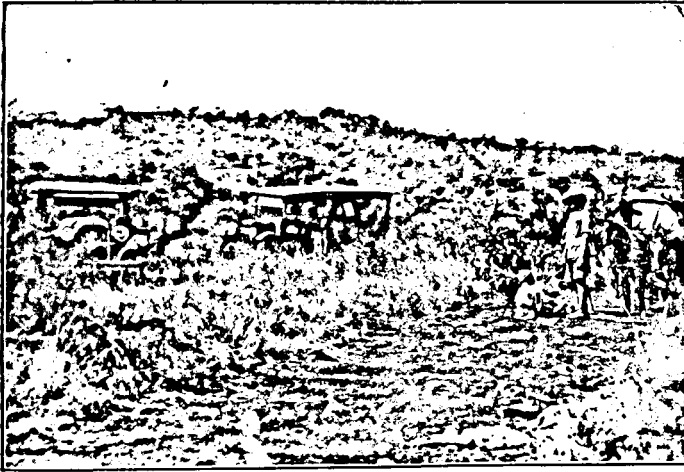


Figure 2.—American automobile on "sarari" in central Africa. Such "bush" driving, done in many parts of the world, helps the demand for replacements

cessful dealer is a jobber selling indiscriminately at retail to garages, repair shops, and individual car owners.

Distribution centers are Lourenco Marques and Beira, the only large towns and the only points at which foreign exchange can be obtained. A Hamburg firm has found it profitable to maintain agencies in other towns, notably Mozambique and Port Amelia, in connection with its general trading and indent business. It will be recalled in this connection that the northern part of the colony was administered for a long time by the chartered Company of Nyassa, in which German capital was heavily represented before the World War.

In the channel of distribution depending upon agency relations with the motor-car manufacturers, the highest local unit is generally a subagent for the principal agencies located in the Union of South Africa. The local subagent sells at retail to the trade as well as to the public.

Foreign manufacturers are cautious concerning the extension of credit in this territory. Consignment stocks or long credits are

granted only to old, established connections whose export trade enables them to obtain gold exchange at certain seasons of the year.

Goods of the best quality are required for this climate and are insisted upon by both jobbers and agents, regardless of price. Cheap imitations of standard parts are not wanted and are promptly returned if shipped to this territory.

There are no advertising media worthy of consideration in connection with this trade.

#### ACCESSORIES

Accessories are in very limited demand, except to replace those which are standard on the car as originally supplied. The accessory trade is habitually dull, even when the business in new cars is active.

American accessories dominate the market, but to a smaller extent than in replacement parts. Of the accessories most in demand the following are supplied from European sources: Bulb horns from France and England dominate the market, with occasional German competition; British tire pumps are sold at a price which apparently can not be duplicated by the American manufacturers; only European taximeters are used, mostly of German and French origin; British windshield cleaners supply the largest share of the demand; bumpers are replaced only to a small extent from stocks of original manufacture, all others coming from South Africa, where they are made; Canadian skid chains offer some competition to American makes; American products lead in electric horns and jacks and have a little less than half the business in tire gages, British and French products offering good competition.

Jobbers buying through indent houses in London, New York, and Hamburg dominate this market. They carry on a wholesale business, allowing trade discounts to dealers and garages. Local commission agents for American and European principals have as yet been unable to build up worth-while lines. Distribution is adequate for the present, and in fact largely discounts a good future for the trade. Carrying of local duty-paid stocks is essential.

Accessories are carried by jobbers, who also sell at retail, and to car agencies, garages, hardware and sporting goods stores, and bazaars.

Terms to dealers are generally 2½ per cent extra discount for cash payment within 15 days after rendering of the monthly bill, net for the next 30 days, and interest-bearing accounts thereafter. Credit terms enjoyed by jobbers depend upon their arrangement with indent houses.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Mechanical service is largely lacking, while electrical service is deplorable. Properly trained mechanics average one to the first-class garage, and the absence of one of these renders the whole staff incapable of carrying out any of the work.

American equipment dominates. Domestic manufacture is improbable; while South African manufacture may be capable of furnishing a few items eventually, there are too many demands upon it at present.



Garages are operated by automobile dealers only, but most of these dealers are merchants who are no more fitted by training and experience to sell automobiles than any other commodity. Five or six of them are earnestly adapting themselves to the business and they find it easier to keep mechanics as well as to sell cars.

For the number of skilled mechanics available, Lourenco Marques garages are overequipped. For the needs of customers, however, the equipment is neither complete nor well balanced.

There is no logical distribution area smaller than the Colony itself, which in turn may be considered as a minor appendage of the South African market.

Present distribution methods include selling to garages from Johannesburg agencies and the purchase by local factors from indent agents in London and New York. Both have proved satisfactory, although the latter method gives the local consumer a wider range to choose from, a thing which usually turns to the advantage of the American industry.

### SIERRA LEONE

#### Market Shows Reduced Demand for Replacement Parts—Garage Equipment Requirements Limited—Accessories Steady

Consul G. E. Willson, Lagos, Nigeria

Motor-vehicle registrations as of January 1, 1931: 495 passenger cars, 12 busses, 351 trucks, 339 motor cycles.

#### REPLACEMENT PARTS

Replacement parts most in demand are bolts, fan belts, spark plugs, and springs. There is also a steady demand for brake lining, piston rings, body upholstery material, rims, and generators. Radiator caps are kept by the largest dealers since these articles are being continually lost or stolen. Other replacement parts are needed occasionally, but do not have the steady demand of those just mentioned.

American participation is approximately 28 per cent of the market requirements. The United Kingdom supplies approximately 50 per cent of the total imports and constitutes the chief competitor to American business.

Distribution is made almost entirely by automobile dealers. Freetown is the only important distribution center.

The managers of the African branches of the large firms indent or order to the head office in Europe, usually specifying quantity, quality, and brand of articles.

This trade usually prefers real leather or a good grade of artificial leather for upholstery. Chromium is preferred to nickel plating, and where particable, chromium over brass.

Only right-hand drive cars are permitted in this territory.

There is very little handling of "imitation" parts and the volume of sales depends entirely on the number of American cars in the territory.

Advertising is confined almost entirely to newspapers. The West Africa Mail and Trade Gazette and the Sierra Leone Weekly News frequently carry large half-page advertisements of American and British cars. Both are published in Freetown.

### ACCESSORIES

There is a steady though limited demand for motor accessories. Owing to low prices of native produce, there has been a decline in sales, particularly of such accessories as are not essential to the operation of the car. The market depends upon the natives who constitute more than 99 per cent of the population. The African likes the accessories that go with a fully equipped car and will spend his money freely when he has it.

America has a good share of the trade in such accessories as may be classified as standard equipment.

The accessories most in demand include bumpers, bulb horns sounding two or more different musical notes, hand jacks, tire pumps, and tire gauges. There is a demand, though not great, for wind-shield cleaners, both hand and electric.

Accessories are usually marketed in the same manner as replacement parts. Practically the entire business is in the hands of the large automobile and truck dealers. Stocks and competitive lines are sometimes handled by the same company.

### GARAGE AND SERVICE-STATION EQUIPMENT

Considerable progress has been made during the last few years in providing automobile service facilities, though those available in Freetown are only fair.

Wheel-alignment equipment and high-pressure lubrication systems and grease-dispensing systems could be used to advantage, but it is not believed that the demand for such service is sufficient to warrant the installation of this costly equipment.

Articles most in demand are those in most common use, such as garage tools, jacks, oil and grease guns, tire-repairing machines, and valve grinders. Such items as gasoline pumps and oil-dispensing pumps are not used in Sierra Leone, as gasoline and oil are purchased in tins.

All the larger and better-class garages are owned and operated by automobile dealers.

Well-trained white mechanics are provided as foremen. There are as yet but very few good native mechanics and the amount of supervision required is more than the foreman can find time to give the work. The result is frequently unsatisfactory service.

Hand tools are used in repairing tires. Tire repairing is done by car owners themselves or repair shops.

### TUNISIA

**Demand for Replacement Parts Expanding, Accessories Down, Service Appliances Fair—American Participation Limited**

Consul Leland L. Smith, Tunis

Motor-vehicle registration as of January 1, 1931: 9,900 passenger cars, 135 busses, 1,465 trucks, and 1,480 motor cycles.

The regency of Tunisia, a French protectorate 48,000 miles in area, has had increasing recourse to automotive transportation during the last decade and offers at the present time a particularly interesting

market for replacement parts. Despite the continued economic depression and the marked slackening registered in most lines of local activity—owing chiefly to reduced commodity prices or a falling off in outside demand—it is not thought that present conditions will greatly affect the steadily expanding market for replacement parts.

The increasing amount of equipment now included with passenger cars has influenced dealers in accessories to devote more and more of their time to the sale of replacement parts.

It is thought that the market for garage equipment will likewise prove of interest during the next two or three years.

#### REPLACEMENT PARTS

The steadily increasing number of cars in circulation has created a demand for replacement parts that continues to grow rapidly. The parts in greatest demand are ball bearings, spark plugs, and springs. Next in importance are pistons, piston pins, piston rings, brake linings, valves, shims, and shim stocks. Items of lesser importance are batteries, clutch facing, and certain body hardware.

The most important types in this market are the small 5-horsepower Peugeot, the 10-horsepower Citroen, Renault in a number of models, then two low-priced American cars, and the Italian Fiat.

Tunisia offers a market for about 45,000 spark plugs annually, and about 25,000 of these are one American make. The balance of the demand is supplied by a French-made American plug, the German Bosch, and a number of miscellaneous French makes.

Estimated sales of ball bearings in Tunisia are placed at approximately 500,000 francs yearly, and the market shows signs of steady development. Among the four local dealers the Italian RIV appears to be gaining ground on the Swedish S.K.F., the Swiss S.R.O., and the French E.B.F. It was only recently that two American makes (one ball and the other roller bearing) appointed an exclusive agency and began to supply the American cars in circulation. Their bearings are higher in price than competing makes. The outlet for roller bearings is very small.

There appears to be an interesting market for springs, particularly for light delivery vans or trucks and also for heavy 5-ton trucks. French-manufactured springs control the local market, and the current models for two low-priced American cars are made in France.

The local business in pistons appears to be shared by four leading makes, the French Binet, Monopole, and Diatherm and the Italian-made Borgo. The two most popular makes of brake lining are the French Ferodo and an American product. Here again the American product is somewhat more expensive than its European competitor.

Valves are almost exclusively of French manufacture.

The market for batteries in Tunisia, roughly estimated at 6,000 units a year, is mainly supplied by three different French makes, namely, Tudor, Dinin, and Monoplaque. Of the total batteries sold, about 25 per cent are American.

Wheels and rims are mostly supplied by Michelin. There appears to be an interesting outlet for shims and shim stock, purchased chiefly in France. Bolts are likewise an interesting line, with France the chief source of supply.

Replacement parts and accessories are not manufactured locally and are entirely imported. American products obtain an important share of the business in spark plugs, batteries, brake lining, and bearings.

A great obstacle to the entry of American-made equipment consists of relatively high rates of duty assessed on all products other than French in the automotive line.

Manufacturers generally appoint a local agent-distributor with headquarters at Tunis and in some cases a subagent at Sfax or Sousse. These agencies are generally exclusive or sometimes shared by two or three agents, who are either intrusted with consignment stocks payable after sale or who purchase outright for their own account at 30 to 60 days.

These distributors generally deal with the garages, which in turn reach the retail buyer. Some distributors, however, try to reach the ultimate consumer as well as the wholesale buyer. Car dealers generally sell the special parts of the makes of cars they represent.

The chief American parts and accessories are usually purchased in France. A large Paris firm obtains exclusive sales rights for France and its colonies for a number of American specialties, appoints agents in French North Africa, and supplies from stocks in France. Early each year numerous travelers solicit business of local dealers. This method of sales promotion gives the best results.

The chief center of distribution for the regency is Tunis, the capital and chief port, after which Sfax, 300 kilometers farther south, and Sousse, midway between these two cities, are likewise important strategic points in this trade.

In all other towns of lesser importance, Bizerte, French naval base, the centers of Gabes, Mateur, Le Kef, Souk el Arba, etc., garages generally maintain small stocks of parts purchased from the agents or distributors established in the capital.

American parts and accessories, except when unique in their line, labor under certain difficulties in the Tunisian market. First, the distance slows up deliveries when ordered other than from Paris; second, there are heavy rates of import duty assessed on all parts other than French; third, the consignment stock facilities offered by several leading French and Italian manufacturers are preferred to the American practice of requesting the opening of an irrevocable letter of credit.

French products command the local market, but in certain lines Italian and American goods hold a strong position. Any car, accessory, or device that proves a success at the annual Paris automobile show finds its introduction into Tunisia much facilitated, while any publicity campaign opened in the French press automatically touches a number of Tunisian prospects.

Apart from the French and to some extent Italian newspapers, magazines, and trade papers that reach Tunisia, there are several local daily papers of interest as advertising media. French and Italian manufacturers generally give their local representatives a free hand where local publicity is concerned. In short, any American exporter successful in appointing a reliable and progressive local agent would do well to leave the details of local publicity in his hands.

## ACCESSORIES

The local market for automotive accessories has shown a steady decrease during the last few years, and several firms that started business in that line have either partly or completely abandoned it in favor of replacement parts.

An important proportion of these accessories consists of American products, usually imported through a Paris distributor and in some cases direct from America to the local distributor, dealer, or retailer. In the accessory line, however, France is by far the main source of supply.

A fair demand exists for such items as bulb horns, electric horns, bumpers, headlights, shock absorbers, hand pumps, and small jacks.

The ordinary bulb horn, nickel finish, generally of French origin, is in steady demand. In the electric article the French Klaxon enjoys popularity. American electric horns are known and appreciated here, but they find competition severe with such French makes as Gentilhomme, Phonor, Cicca, Gurtner, etc.

American bumpers, other than those that enter on imported American cars, are not known here. The leading French make, Repousseau, is distributed by an exclusive local agent who is intrusted with a consignment stock.

French lights command the local market with Marchal, Ducellier, Cibie, Brc, and several others. The market for rear, parking, and stop lights is extremely limited.

Apart from the American shock absorbers equipped on an important proportion of the cars imported, the leading device in demand is an American friction model.

A standard type of hand pump is the Michelin, but there are much cheaper pumps of French origin which sell locally.

In small jacks, Michelin, the French tire manufacturer, accounts for the majority of the demand.

License plates are made by a local foundry, but some are imported from France. Plates are not changed annually, and the number remains the same.

Tire covers have recently been offered by local tire agents for publicity purposes; otherwise the demand is exceedingly small.

The local trade generally obtains 30 to 60 days, while German travelers in their endeavor to gain a footing are at present offering 90 days from date of arrival, and they quote c. i. f. Tunis. American firms have a local reputation for requesting "irrevocable letter of credit on an American bank" and are judged exacting. It would be a good plan for American concerns to offer certain facilities, if only to make a favorable impression on the local prospect, since the request for "cash" appears to have a cooling effect on the Tunisian business man. Where consignment stocks are involved, it is safer to request a local bank guarantee.

French accessories enjoy a privileged position in the local market, since French cars are in the majority.

Furthermore, French accessories enter free of duty. French firms of agency or purchase are usually more lenient than those offered by American houses, and the comparative nearness of France.

possibility of quick deliveries, the advantage of a common currency and language are additional factors which tend to establish French products in the majority.

Accessories are generally stocked by accessory dealers and exclusive distributors in the large cities. Of the large garages of the capital, only one carries an important stock of accessories. In the interior of the country, however, almost all garages carry, in addition to tires and replacement parts, a small stock of accessories. Car agencies generally carry mechanical parts for the makes of cars they represent.

#### GARAGE EQUIPMENT

Service stations as understood in the United States do not exist. There are at present in Tunisia 1,500 filling stations which are simply pumps for gasoline. Of these about 50 per cent are installed on the large farms using modern agricultural machinery. There are four large kiosks where gas, oil, and air are available, and finally four so-called service stations, which, in addition to supplying gas, oil, and air, possess an auto lift and repair service.

The whole question of service has as yet hardly been touched. Apart from the large garages of the capital, nearly all the Tunisian garages are far behind the times in service and repair conveniences.

Generally speaking, all equipment entering the class of machine tools, lathes, reamers, drills, etc., is almost invariably of French origin.

American equipment is supreme in the field of auto lifts, car washers, paint-spraying equipment, jacks, and similar equipment. The demand, however, is as yet small.

About a half dozen American car washers and auto lifts are installed in large garages. Apart from these, a certain number of American air compressors, jacks, rollers, and various small items of equipment and tools are installed. American hydraulic jacks of 2½-ton capacity appear to be popular.

Properly trained mechanics are the exception in Tunisia and are to be found only in the large automobile concerns. Generally speaking, Tunisian labor gives but average satisfaction.

Electric current is available to garages on an economical basis in the four chief cities already enumerated, and the distribution of electrical energy already includes the most important regions of northeastern Tunisia.

Most of the local garages are operated by automobile dealers, their agents, or subagents. Tires are generally changed by hand. Tire repairing is done by special vulcanizing shops and is not undertaken by the garages.

Sales of costly garage equipment should undoubtedly be effected on the time-payment plan, whenever necessary. The local representative of the manufacturer would have to exercise extreme prudence and discrimination in assuming credit risks.

In the event distribution is effected through a local wholesaler, it is advisable to offer 30 days from date of invoice if the local firm is known to be reliable. The logical mode of distribution would be through an exclusive Tunis agent to whom consignment stocks could be intrusted against bank guaranties.

## UNION OF SOUTH AFRICA

**Good Demand for Replacement Parts and Service Appliances—Accessory Requirements Declining—American Products Supply the Greater Share of the Demand, with Increasing European Competition in Parts and Accessories**

*Commercial Attaché Samuel H. Day, Johannesburg, South Africa*

Motor-vehicle registrations as of January 1, 1931: 132,000 passenger cars, 1,400 busses, 18,000 trucks, 32,500 motor cycles.

## REPLACEMENT PARTS

The demand for replacement parts has followed a steady upward trend in the last five years and has apparently been less affected by the present depression than any other automotive line.

Engine parts, transmission parts, especially gears, and springs are the leading items in demand, owing to the unusually severe wear imposed by the absence of hard-surface roads in this area.

American participation supplies fully 80 per cent of the demand for replacement parts, with no competition of importance from domestic manufacturers. European producers, however, particularly British, are making determined efforts to secure a larger share of the business and are meeting with some success.

Some progress has been made by a German company supplying plain and roller bearings at prices considerably below those of the American product. American producers control the business in brake lining, fan belts, spark plugs, pistons, gears and pinions, starting and lighting generators, and body hardware and upholstering material, although European firms are endeavoring to obtain a larger proportion of this business.

In general, foreign manufactures of replacement parts are attempting to increase their share of the South African trade only on the basis of price.

The replacement trade is handled almost exclusively through manufacturers' agents, who act on an exclusive basis for their overseas principal, receiving commissions varying from 5 to 10 per cent on the orders taken. The same is true of accessories and to a considerable extent of garage equipment. Shipments are made direct to a group of wholesale distributors located at strategic points throughout the territory. The manufacturers' agents do not as a rule assume any responsibility in connection with the orders they place. They are in a position, however, to supervise credit risks, cooperate in the placing of advertising, and otherwise further protect the interests of the factories they represent.

Leading distribution centers are Johannesburg, Cape Town, Durban, Port Elizabeth, East London, and Bloemfontein in the Union of South Africa; Lourenco Marques in Portuguese East Africa, and Bulawayo and Salisbury in Southern Rhodesia.

Practically all suppliers to South Africa of automotive-replacement parts and accessories accept orders only through overseas financing houses. These are located mainly in New York or London. They confirm the orders of their South African clients and pay cash before the goods are shipped. There has been a slight tendency

toward direct shipment to selected markets on terms up to 90 days sight draft. British suppliers catering to this market follow the same system.

There is a distinct and frequently expressed preference on the part of both wholesalers and manufacturers' agents in South Africa for more direct dealing with American factories. The practice of committing foreign sales of replacement parts to combination or group export managers often results in a South African manufacturer's agent acting for two or more of these export managers having competing lines, and thus being unable to do justice to all of the manufacturers concerned. Another preference is against purchasing an American-type product from a British manufacturing subsidiary, and especially against buying through a merchant distributor in the United Kingdom having South Africa as a part of his territorial rights. Dealers in Rhodesia are expressing their desire to do more direct business with the United States instead of through wholesalers in the Union of South Africa. The two territories are separate political units, and this preference of Rhodesia should be heeded as rapidly as the volume of orders from that colony makes it economically feasible.

The most effective advertising for replacement parts and accessories is considered by the local trade to be that placed in wholesalers' catalogues, supplemented by direct circularization of literature supplied to these wholesalers by the manufacturers. Most of the American automotive trade journals circulate freely in this territory so that these may be considered as additional media for advertising American parts. Little or no press advertising of replacement parts is employed.

#### ACCESSORIES

The market for automotive accessories in South Africa is limited, and, according to the trade, the demand is decreasing. The American share which exists is satisfactory, but, owing to the conservative nature of the people and the fact that cars are sold practically equipped, the demand is generally limited to such items as nonskid chains, luggage carriers, tire covers, and a few novelties.

Competition for American manufacturers is keener in the case of accessories than for replacement parts. Bumpers, luggage carriers, tire covers, number plates, seat covers, and glare eliminators are made locally. Bulb horns are not employed, and the climate precludes heaters. The taximeter demand has been considerable as a result of regulations requiring their installation on taxicabs in all sections of the Union. A low-priced French make has the bulk of the trade, however.

The American share of the accessory trade in South Africa is about 75 per cent. However, British and continental manufacturers are pushing their lines keenly in this territory. Even the bazaars are beginning to carry such things as rubber mats, novelties, etc., mostly low-priced goods of German origin.

The market is strongly affected by the extent to which cars are now originally equipped with all essential devices. There is no



taste for showy accessories and little demand for expensive articles not absolutely necessary to the operation of the car.

Channels of distribution follow closely those for replacement parts. Stocks are carried by wholesalers who supply garages and other retail outlets.

Accessories are not stocked to any great extent by service stations, sales being confined to car agencies, garages, and specialty stores.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Decided progress has been made in providing adequate service facilities and, generally speaking, this territory is not far behind the United States.

Cheaper items, such as garage jacks, oil and grease dispensing pumps, etc., have the largest sale, owing to the fact that the smaller service stations and repair shops are restricted by their financial resources to the few essentials. In the large centers there is no reason for any restriction in the use of mechanical-garage equipment. Electric current is available at all urban garages.

Most tires are changed by hand. One American manufacturer has sold a large number of tire changers, which are in use in leading service stations, vulcanizing shops, etc.

Car dealers are the principal garage operators, although in the larger cities there are a number of independent service stations. Mechanics are given fair training before being allowed to undertake the usual mechanical repairs, and it is apparent that a high grade of young men have gone in for this type of skilled labor. The principal difference between South African and American mechanical work is the employment here by each mechanic of one or more native Kaffir helpers, who are invariably called upon to do the more distasteful part of the work, in addition to cleaning, polishing and similar service.

The great majority of the service-station equipment used is of American manufacture. There is no domestic manufacturing nor is this probable in the near future. Several European producers, however, are offering fairly complete ranges of equipment. German air compressors and battery chargers are on sale, as are garage tools, portable drills, etc. A French gasoline pump has the largest sale, being partly assembled in South Africa.

Distribution in the Cape Province is adequately handled from Cape Town, Port Elizabeth, and East London. Durban covers Natal, Bloemfontein the Free State, and Johannesburg the Transvaal. Lines are placed in the hands of manufacturers' agents for the whole Union, who in turn grant exclusive distributorships in the towns just mentioned for the territories adequately covered from these points.

The use of a manufacturer's agent in selling garage equipment is undoubtedly the best method. Although distribution rights are allotted, the agent can maintain sales-promotion campaigns, coordinate sales effort, advertising, etc., and carry on the necessary educational work.

## 64 AUTOMOTIVE PARTS, ACCESSORIES, AND SERVICE EQUIPMENT

Although it has been reported that some European manufacturers are offering consignment stocks of garage and service-station equipment to wholesalers in South Africa, there can be no doubt that the best terms are identical with those prevalent in the replacement parts and accessory trade.

The majority of garages and service stations in South Africa realize the need for modern mechanical equipment and in most instances are restricted in their purchases only by financial limitations and the suitability of their premises. The 1930-31 depression has affected the sales of this class of equipment, but with the return of normal conditions a steadily increasing demand should follow.

## ASIA

### ADEN PROTECTORATE

**Demand for Replacement Parts Active, Accessories Slow, Service Appliances Promising—American Participation Leads in All Three Classes in Supplying This Market**

*Consul Carlton Hurst, Aden, Arabia*

Motor-vehicle registrations as of January 1, 1931: 497 passenger cars, 106 busses, 51 trucks, and 17 motor cycles.

A number of automobiles in Aden have been laid aside temporarily owing to lack of funds for repairs, to the limited number of efficient mechanics too occupied to attend to the repairs, and to the absence of necessary replacement parts, particularly for the newer cars. It is believed, however, that after the 1930-31 business depression is over the construction of new roads, adoption of modern machinery and tools, and the sales of automobiles and parts will eventually increase.

### REPLACEMENT PARTS

The market for replacement parts has increased in the last two years. This is explained by the fact that owners who, in normal times, would purchase new models at frequent intervals have purchased parts and repaired their cars.

SUMMARY OF THE MARKET FOR AMERICAN REPLACEMENT PARTS, ACCESSORIES, AND SERVICE APPLIANCES IN ASIA

Country	United States exports in 1930			Present demand			American participation		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Aden Protectorate.....	\$11,483	\$895	\$335	Active.....	Slow.....	Favorable.....	Leads.....	Leads.....	Leads.....
British Malaya.....	436,302	18,797	65,971	Good.....	Fair.....	Slight.....	60 per cent.....	60 per cent.....	Do.....
Ceylon.....	71,595	3,972	17,181	Fair.....	Good.....	do.....	do.....	60 per cent.....	55 per cent.....
China.....	469,617	35,106	97,962	Small.....	Small.....	Small.....	90 per cent.....	90 per cent.....	Indefinite.....
Hong Kong.....	125,896	11,239	31,789	(1).....	(1).....	(1).....	(1).....	(1).....	(1).....
India.....	1,504,946	83,662	261,661	Good.....	Down.....	Growing.....	75 per cent.....	Leads.....	Leads.....
Iraq.....	74,757	4,229	8,483	Fair.....	Small.....	Limited.....	85 per cent.....	do.....	Do.....
Japan.....	1,643,705	94,630	90,722	Good.....	Fair.....	Growing.....	95 per cent.....	85 per cent.....	Do.....
Netherland East Indies.....	987,660	52,156	138,080	do.....	Down.....	Small.....	58 per cent.....	70 per cent.....	Small.....
Palestine.....	42,012	1,394	4,508	Favorable.....	Growing.....	Favorable.....	85 per cent.....	80 per cent.....	80 per cent.....
Persia.....	135,242	2,757	10,152	Uncertain.....	Slight.....	None.....	Leads.....	Indefinite.....	Indefinite.....
Philippine Islands.....	814,895	65,642	117,347	Steady.....	Growing.....	Growing.....	100 per cent.....	100 per cent.....	100 per cent.....
Siam.....	139,168	10,947	18,480	Small.....	Down.....	Small.....	75 per cent.....	70 per cent.....	75 per cent.....
Syria.....	161,676	3,706	12,016	Growing.....	Low.....	Limited.....	95 per cent.....	25 per cent.....	100 per cent.....
Taiwan.....	(2)	(2)	(2)	Good.....	Growing.....	Small.....	75 per cent.....	45 per cent.....	80 per cent.....
Turkey 1.....	244,384	4,088	17,624	Increasing.....	Limited.....	Limited.....	90 per cent.....	65 per cent.....	Leads.....

Country	Domestic production			European competition		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Aden Protectorate.....	None.....	None.....	None.....	None.....	None.....	Slight.....
British Malaya.....	Small.....	do.....	Small.....	Active.....	Fair.....	Do.....
Ceylon.....	Limited.....	Limited.....	Limited.....	Growing.....	Growing.....	Fair.....
China.....	Small.....	Small.....	Small.....	Small.....	Small.....	Indefinite.....
Hong Kong.....	(1).....	(1).....	(1).....	(1).....	(1).....	(1).....
India.....	Small.....	Small.....	None.....	Small.....	Growing.....	Growing.....
Iraq.....	None.....	do.....	do.....	do.....	Fair.....	Small.....
Japan.....	Growing.....	Growing.....	Growing.....	do.....	Small.....	Do.....
Netherland East Indies.....	None.....	Small.....	Small.....	Heavy.....	Fair.....	Heavy.....
Palestine.....	Small.....	None.....	None.....	Limited.....	Small.....	Small.....
Persia.....	None.....	do.....	do.....	Indefinite.....	Indefinite.....	Indefinite.....
Philippine Islands.....	do.....	do.....	Slight.....	None.....	None.....	None.....
Siam.....	Small.....	Small.....	None.....	Growing.....	Active.....	Fair.....
Syria.....	Growing.....	do.....	do.....	Small.....	Heavy.....	None.....
Taiwan.....	Fair.....	Active.....	Fair.....	Fair.....	Growing.....	Do.....
Turkey 1.....	None.....	None.....	None.....	Slight.....	Fair.....	Fair.....

1 For information as to market conditions, see China.

2 Included with Japan.

3 Discussion of Turkish markets will be found on pp. 284-292

The parts most in demand are bearings, both plain and ball, bushings, spark plugs, valves, bolts, brake lining, fan belts, springs, and piston rings.

Since all the cars in the taxi service are of American manufacture, and since such cars require more frequent replacements than privately owned cars, the United States leads in this market.

There are in Aden about six dealers in automobiles who carry ample supplies of replacement parts. There are also four repair garages where small supplies are available. There is no competition, prices do not vary, and sales are generally made on a cash basis.

Sales methods are admittedly bad, and salesmanship is of a low order. Modern sales methods, sales equipment, and intelligent advertising are rarely employed. In other words, the salesman of this district waits for the purchaser to come to him. This is true of all classes of merchants, including dealers in automobiles.

#### ACCESSORIES

The market for accessories is not as active as that for replacement parts. More economy is exercised in disposing of such accessories as can still be used, and purchases are made only in exceptional cases.

The following accessories are principally in demand: Bumpers, bulb horns, lamp lenses, license plates, rear-view mirrors, tire pumps, radiator caps, and novelties.

The United States again leads in the sale of accessories. A stock sufficiently large to take care of the market for a reasonable time is usually kept on hand, and the present distribution adequately covers the need. In some cases competitive lines are handled by the same company. As in the case with replacement parts there is no competition.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There were four service stations during the year 1930 which supplied gasoline, but recently the representatives of a well-known American oil company have started to install six more such stations. Larger sales of American gasoline are now expected.

Certain items of garage equipment which may be of interest include air compressors, battery chargers, garage tools, oil and grease guns, portable drills, and tire-repairing machines, including tire changers and vulcanizers.

There are two garages which give suitable service to both private and public cars. In both of these fairly competent Italian mechanics are being employed. No equipment of any kind is made locally, and foreign competition is nil.

There are three garages operated by automobile dealers. Garage and shop equipment once obtained is made to last for a long time, and there has never been any immediate need for any particular equipment.

Electric current is available, and both electrically driven and hand-operated appliances are being used. Hand tools are used in changing tires. All tire work is done in repair shops, of which three are to be found in Aden.

In the absence of a direct American traveling representative, the best selling method is through the manufacturers' agent, which method has given satisfactory results in this district.

### BRITISH MALAYA

#### Demand for Replacement Parts Good, Accessories Fair, Service Appliances Slow—American Participation Over 60 Per Cent in All Classes

Assistant Trade Commissioners August Brauer, Jr., and Donald W. Smith, Singapore, Straits Settlements

Motor-vehicle registrations as of January 1, 1931: 31,538 passenger cars, 2,500 busses, 7,614 trucks, and 5,000 motor cycles.

British Malaya, with a motor-vehicle census of close to 42,000 units and an annual consumption of automobile parts and accessories valued at more than \$1,000,000, is a market worthy of serious consideration by American manufacturers. Approximately 60 per cent of the total is secured by the United States, while English producers supply about 27 per cent. The remaining trade is divided chiefly by France, Italy, and Germany. Singapore and Penang, the leading ports in Malaya, are also important distributing centers for reexports of accessories destined to Siam, Sumatra, and the small islands of the Netherland East Indies. A volume of transshipment trade in parts and accessories amounting to about \$400,000 annually is done through these channels.

The import trade in parts and accessories is controlled by a relatively small number of manufacturers' agents and Chinese importers, while the actual retail distribution is largely in the hands of Chinese firms. European importers are not important as distributors of American parts and accessories, but the marketing of English automotive products is still handled through European firms.

Price and not quality is the determining factor in the parts and accessories trade of Malaya, and its large volume is due to the short life of the cheap products in demand.

The principal requirements are for "imitation" motor replacement parts and chassis parts. The demand for accessories is only fair, while sales of garage and service equipment are limited.

American manufacturers who are in a position to quote competitive prices and who obtain the proper representation in Malaya are assured of a fair volume of business in this market.

### REPLACEMENT PARTS

"Imitation" motor parts are in demand more than any other type in this territory, the reason being that repairs to the original parts are usually made with the cheapest types available, which soon wear out and have to be replaced frequently. Due to careless driving on the part of native chauffeurs, chassis parts, such as axles, rims, and wheels, are also sold in large quantities.

There is an excellent demand for cheap pistons and piston rings, copper cylinder-head gaskets, spark plugs, and axle shafts to fit the three leading makes of light American cars; brake lining, although the market is highly competitive and only those manufacturers who are able to quote competitive c. i. f. prices, have an opportunity of

doing business; and fenders, owing to prevalence of accidents and the effect of high humidity. In Singapore the streets are sprinkled with sea water, inducing rapid corrosion of fenders, which last only about a year despite careful attention; many replacement fenders are made by local Chinese tinsmiths. Springs and spring leaves are in demand; manufacturers quoting c. i. f. prices have a good chance of securing business. Wheels and wheel parts also sell well.

A good demand exists for fan belts, bushings, and valves, and radiators and radiator parts, the demand being chiefly for genuine radiators manufactured by motor-car companies; ignition cable, although during the past few years Chinese motor-car firms have been making locally from ordinary cable; timing gears, since replacements are needed frequently on all American cars; ball and roller bearings, especially the latter; clutch facing, for Chinese importers are interested in securing direct connections in view of the competitive nature of the market; transmission gears and pinions; and wind-shield glass, the requirements of which are supplied by European manufacturers.

There is a fair demand for lamps, transmission lining, universal joints and parts, and pump material, although American manufacturers are unable to meet the prices of the English and German producers in the latter article.

There is a small demand for piston pins, drive chains, fans, timing chains, starting, lighting, and ignition equipment, frames, steering apparatus and parts, tire valves, drive shafts, speedometers, curtain fasteners, and body hardware. Although bus bodies are built locally by Chinese carpenters they are rather crude affairs. Truck bodies are also built locally, but so far there has been no demand for truck hardware from the United States. Hardware in use is obtained from Germany or England.

There is no demand for shims, brake assemblies, or window regulators.

Various channels of distribution are offered to the exporter. Manufacturers' agents are available for those exporters whose knowledge of marketing conditions in this territory is limited. Manufacturers with well-functioning export and credit departments are offered the alternative of dealing direct with importers and dealers if they so desire. Combination export groups can send factory representatives to Malaya. The manufacturer of technical and quality lines is offered an outlet through European importers and motor firms.

Three New York commission houses are actively represented in British Malaya, and it is these firms which at present are obtaining the largest volume of business in replacement parts and accessories. This type of connection is desirable for manufacturers who are not well acquainted with local market conditions, as well as for those who are interested in securing a large volume of business with a minimum of effort. Agents of these houses employ native salesmen well acquainted with the trade to travel through the territory, soliciting orders from the most reliable dealers. Orders are secured on an indent basis only.

Credit risks are practically eliminated by dealing through this medium. In some instances indents are paid for in New York by the

head office of the firm, or goods may be sold on a D/A basis to the largest dealers and on a D/P basis to the smaller dealers. If goods are refused, the representative, almost invariably is successful in placing them with other dealers, and if certain firms are in financial difficulties, orders are canceled by cable. The chief advantage of this method is that wide distribution is possible with little or no credit risk.

There are several local firms working the Malayan market in the same manner described above, with the exception that goods are rarely paid for in New York. These local manufacturers' agents have few direct factory connections, and most of the lines they handle are distributed by combination export managers in the United States. Since orders are secured on an indent basis, little or no capital is required of a reliable manufacturers' agent, and factories are reasonably safe in working direct with them in the same manner as described in the preceding section.

During the past few years there has been a tendency on the part of the larger Chinese motor-accessory importers to buy direct from manufacturers in the United States rather than through manufacturers' agents or combination export managers. A few of these firms are financially sound and have branches or connections in the principal cities in British Malaya. Although some manufacturers have obtained first-class representation by dealing direct with the large Chinese importers, far greater distribution can usually be obtained by working through an outlet which sells to all of the leading importers and dealers, since the Chinese importers will not buy from each other. In other words, the distribution of a line handled by a large Chinese importer is limited largely to his branches or connections, which is, of course, a great disadvantage. On the other hand, representation by one of these firms means having an agent who is familiar with the territory and who will carry stocks.

The importers referred to previously are the wholesalers through whom a line is distributed, no matter how it is imported, but only by working through an outlet that will sell to all of them can maximum sales be obtained.

The most important Chinese importers are located in Singapore, from which point they also ship to connections in the Netherland East Indies and Siam. Independent branches of these firms are located in Kuala Lumpur and distribute to connections in Ipoh and Malacca, while Penang is served by two important firms having connections in northern Malaya, southern Siam, and the east coast of Sumatra.

A number of important lines are handled by European motor firms with head offices in Singapore. These firms all have branches throughout Malaya which have charge of the distribution of the lines in their particular districts. This type of representation is usually reliable, manufacturers need not be concerned about credit risks, and in most cases representative stocks are carried by the agents.

There are, however, disadvantages in working through a European motor firm. As a rule these firms are not active in pushing lines which they handle, and their lines are not found in the smaller Chinese dealers' hands; the commission desired by a European house on a stock line is often sufficient to make the line uncompetitive. The



prevalence of "nongenuine" parts on the market is said to be due chiefly to the fact that the agents of various American cars were unwilling to sell genuine parts on a sufficiently narrow margin of profit. European motor firms make first-class distributors for lines that can be sold to the European trade, but they can not be considered good distributors for highly competitive lines.

A few of the large European import houses in Singapore have endeavored to break into the automobile accessory trade during the past few years. These firms work in the same manner as the European motor firms, but as a rule they are content to work on a smaller margin of profit. They are particularly suited to handle lines of a technical nature or lines that need educational work. They are logical outlets for active lines of garage or service equipment that require stocking. Most of the European import houses have branches throughout Malaya, but those that do not have branches employ traveling salesmen to visit dealers in the upcountry districts. Most are old established firms, and in dealing with them credit risks are minimized.

Many American manufacturers are selling direct to Chinese dealers throughout Malaya. Factories selling direct to dealers are in a position to eliminate the costs of selling through an agent and thereby underquote other manufacturers. This method has its disadvantages, however, since a sudden change in economic conditions or the financial embarrassment of the dealer may result in goods not being accepted or, if D/A terms have been granted, a total loss. Many small dealers in Malaya have been known to go into liquidation when convenient, and a few months later open another shop in which they continue in the same line of business. Throughout the first nine months of 1930 economic conditions in Malaya were very unsettled, and banks reported a number of drafts dishonored and unpaid from small accessory dealers. In some instances American manufacturers were forced to dispose of their goods at far below cost, and in other cases shipments were returned to the United States after being stored in Singapore and Penang for several months.

Factories with well-informed credit departments may be able to conduct a satisfactory business in Malaya by dealing direct with Chinese dealers, but the manufacturer who has no knowledge of local conditions should endeavor to market his lines through one of the outlets previously mentioned.

Despite the steady demand in this territory there are few lines that are obtaining such volume that the maintenance of a permanent factory representative in the territory is justified. It is believed, however, that a combination of manufacturers marketing noncompetitive lines could advantageously employ a factory representative with headquarters in Singapore. Such a representative could appoint and keep a close check on agents in Malaya, Siam, and the Netherland East Indies. This entire territory, known as Middle Asia or Southeastern Asia, is not familiar to the average American exporter, but in 1928 its imports of automobile parts and accessories were valued at almost \$4,000,000. At the present time only one important American export corporation, handling automotive-accessory lines exclusively, maintains a representative in this territory.

The results this corporation have obtained indicate that other firms would do well to follow its example.

Most of the automobile accessories and parts imported into British Malaya are received at the port of Singapore, although some shipments for northern Malaya are received at Penang, while a few consignments intended for Kuala Lumpur are imported through Port Swettenham. Most of the shipments from the east coast of the United States are forwarded via the Suez Canal in order to save the extra time required in shipping via the Pacific Ocean through the Panama Canal.

Singapore, Kuala Lumpur, Penang, Ipoh, and Malacca are the five principal distributing centers for automotive products. The first-named city, Singapore, is, of course, the most important, and goods are not only forwarded throughout Malaya from this point but transshipments are made to Siam, British North Borneo, and the Netherland East Indies. Kuala Lumpur, the principal inland distributing center, serves dealers in Taiping, Kampar, and Teluk Anson, while Malacca serves Batu Pahat, Muar, and other points in the State of Johore.

Seremban, Klang, and Taiping are second distributing points. Others in this subsidiary group are Johore Bahru, Alor Star, Kota Bahru, Tampin, and Port Dickson.

#### ACCESSORIES

The distribution of American automobile accessories in the retail trade is chiefly in the hands of about 12 large Chinese importers and wholesalers who buy their requirements through manufacturers' agents, direct from factories, from import houses, or through combination export managers in the United States. These firms are the real wholesalers, and each has its circle of dealers and subdealers. The larger of them are located in Singapore, but there are also several fairly important wholesalers in the upcountry districts. Some of the Singapore firms have branches in Kuala Lumpur, but these branches often act independently and buy direct from factories and manufacturers' agents if necessary. The most important wholesalers are located in Singapore, Penang, Kuala Lumpur, Ipoh, and Malacca, and manufacturers interested in getting in touch with Chinese wholesalers in this territory should endeavor to form a connection with a firm in one of these cities. It is usually customary to appoint one agent for British Malaya, which includes the Straits Settlements, Federated Malay States, and the Non-Federated Malay States.

English accessories are still marketed by European firms, as competition among English manufacturers is not as keen as among American producers, and agents are still able to maintain prices. Several attempts have been made to introduce "imitation" English parts in Malaya, but price reductions by the agents of the genuine parts soon drove these off the market. Agents for English accessories allow Chinese wholesalers and dealers a commission of only 10 per cent, and most of the European motor firms in Singapore are still making a profit of from 30 to 50 per cent on the sale of spare parts and accessories in both the wholesale and retail trade.

Automobile accessory dealers—all of them Chinese—are found everywhere in Malaya, most of them controlled and financed by the leading importers or larger dealers. The firms in the small up-country villages are not in a position to deal direct with American exporters, and manufacturers' agents do not even endeavor to solicit indents from them. There are, of course, some reliable small dealers in the territory, but unless definite credit information is obtainable they should not be considered as possible outlets for American goods.

It is only during the past few years that American automobile accessories have been offered to importers and dealers in British Malaya on other than 60 days D/P terms. These terms were almost standardized, until competition among American exporters became so keen that some had to offer special inducements in order to secure a portion of the business, and it was then that D/A terms up to 60 days were offered. At the present time one or two American manufacturers' agents are selling on D/P terms, while the others are offering 60 days D/A to firms of good standing. Those manufacturers' agents selling on D/P terms only are acting under instructions from head offices which have paid the exporter in full within seven days after shipment of the goods. One of the manufacturers' agents in Singapore offering D/A terms is able to do so through the backing of a local finance company, while the others offering these terms are doing so on behalf of the factories they represent. In general, the well-established lines are selling on the former basis, while new lines are forced to grant D/A terms.

European importers allow local dealers from 60 to 90 days' credit, but the Chinese importers allow the members of their circle up to 180 days' credit. The unsound financial position of many importers is often caused by an overextension of credit on their part to small dealers. Chinese importers in Singapore frequently have outstanding accounts due them to the value of \$50,000 to \$75,000.

In view of the credit terms which they have to give to their dealers, Chinese importers naturally prefer to do business with firms offering D/A terms and sometimes will pay 2 or 3 per cent more for an article in order to obtain these terms.

When local economic conditions are sound, American manufacturers are fairly safe in quoting D/A to manufacturers' agents and to the larger importers but are advised not to quote these terms indiscriminately to small dealers. If credit is obtainable, some firms would sell shipments at 5 per cent below cost for cash, speculate with the money for 60 days, and honor their drafts at the end of that time if their speculations proved profitable. If their speculations do not turn out as they hoped, the firms may go into liquidation and open up under another name at the end of a few months' time. Economic conditions have been so unfavorable during the current year that several manufacturers' agents even have discontinued D/A terms, and dealers have increased their efforts to secure direct connections with unwary manufacturers who will quote them these terms.

American manufacturers interested in this market and even those already firmly established will find it to their advantage to make their quotations c. i. f. Singapore or c. i. f. Penang if possible.

Chinese importers have had such unfortunate experiences with agents and travelers quoting approximate c. i. f. prices that they usually give their indents to the firm quoting actual c. i. f. prices. Freight charges from inland ports in the United States vary from 7 per cent up on certain parts and accessories, and it is impossible to estimate the approximate c. i. f. price on initial orders. Approximate shipping weights are of little use to importers in Malaya, because not even steamship rates on these goods are obtainable in Singapore and Penang.

C. i. f. charges on goods shipped in standard packages, such as nuts, bolts, pistons, piston rings, and other motor replacement parts, usually average about 8 or 10 per cent of the value of the invoice, while the charges on horns, mirrors, fenders, and other accessories and chassis parts vary from 7 to 20 per cent, with the average about 15 per cent. One local firm is doing a considerable volume of business in a replacement part on which the charges from an inland point in the United States to Singapore amount to 95 per cent of the cost of the article.

Under no circumstances should manufacturers quote prices f. o. b. factory if the factory is located at an inland point in the United States. If the manufacturer is unable to quote c. i. f. prices he should at least quote prices f. o. b. New York or f. o. b. San Francisco. According to local importers and manufacturers' agents, automobile-accessory lines which are quoted f. o. b. an inland point in the United States receive no consideration, no matter how attractive they may be. If it is difficult for manufacturers to estimate f. o. b. or c. i. f. quotations, they should remember that it is even more difficult for importers in Malaya to estimate their landed cost, and in this highly competitive market cost is a paramount consideration. American manufacturers really interested in furnishing c. i. f. quotations can easily obtain the necessary data from their forwarding agents.

Prices and quotations are of such importance in Malaya that importers are now endeavoring to secure connections with manufacturers located on the west coast of the United States because of the saving in freight rates and because it is easy to estimate the c. i. f. charges.

Dealers are thoroughly familiar with discounts, but in quoting prices for this market it is more desirable to give a net f. o. b. or a net c. i. f. price, particularly if manufacturers are endeavoring to secure direct connections with dealers and importers. Manufacturers' agents usually quote list prices, minus discounts which include their commission.

Although prices have to be converted eventually into Straits Settlements currency for the benefit of local dealers, it is not necessary for American manufacturers to convert their gold-dollar prices into local currency.

As previously mentioned, price is the determining factor in automobile-accessory sales in British Malaya, owing to the native policy of buying on a hand-to-mouth basis. The bulk of the replacement trade is done with native taxi drivers, bus owners, and truck owners, who are usually so hard pressed for cash that repairs are always effected at the lowest possible cost. Genuine replacement parts are usually purchased by European car owners, but this trade is unimportant compared with the native trade.

Competition is so keen in Malaya that well-established lines soon lose their popularity if new lines are offered at better prices. A difference of 1 or 2 per cent in the landed cost of large-volume lines, such as pistons, valves, brake lining, etc., is sufficient to make the more expensive lines uncompetitive. In view of this situation, manufacturers' agents and importers are continually on the lookout for the cheapest line available, and manufacturers who quote the lowest c. i. f. prices almost invariably secure the greatest volume of business.

American manufacturers who have been unable to break into the Malayan market or manufacturers whose trade has fallen off should carefully study their marketing costs and endeavor to eliminate all unnecessary charges.

Among the more important items of accessories in the Malayan market, there is an excellent demand for radiator ornaments. There is a good demand for baggage carriers and bulb horns, which are required by various municipalities throughout the country; most of the bulb-horn trade is secured by English manufacturers. There is a good demand for cheap lines of jacks and mirrors, the latter being required by the Federated Malay States and Straits Settlements licensing officers. There is a good demand for tire pumps, chiefly as replacements and a fair demand for bumpers, provided they are fitted with universal fittings. Tire covers are popular, but they are distributed free by the tire companies. Requirements usually are obtained by the head office in the United States. A fair demand exists for tire-pressure gauges.

There is no demand for tire chains, and they are not on the market. Cigar lighters, car heaters, motor-heat indicators, windshield visors and wings, shock absorbers, dash clocks, and oil-purifying devices all have an extremely limited demand. To date there has been no demand for taximeters in Malaya. There has been so much dissatisfaction about taxi rates in Singapore, however, that the municipality has considered requiring them on all hire cars.

Advertising of parts and accessories is done only by European importers on lines which they represent. The Chinese importer and manufacturer's agent is not interested in advertising his lines, since advertising costs usually add 1 or 2 per cent to the price of the article, which might be sufficient to make it uncompetitive in price. Manufacturers who are willing to grant advertising allowances to local agents should allow the agents to decide how it should be spent.

#### GARAGE AND SERVICE-STATION EQUIPMENT

It is only in the past few years that British Malayan automobile firms have realized the importance of service, and the only firms which have made any effort to give good service are the automobile importers and dealers. Several of the European firms have installed modern equipment, most of which has been purchased from the United States.

British Malaya presents a difficult problem for the salesman of modern service facilities in view of the fact that only about 10,000 cars of the total in the country are owned by people who are interested in keeping them in good condition. It is explained that over 9,500 passenger cars are hire cars, which are owned by Orientals

who service their cars themselves or with the assistance of their fellow taximen. The 2,500 busses are, generally speaking, old passenger models converted by Chinese owners who have their own repair shops. The owners of the 7,605 trucks in the territory are Government agencies, which have their own garages equipped almost exclusively with goods of British manufacture, or Chinese truck operators who use the service facilities offered by thousands of small Chinese garages.

The facilities of these garages are limited, since almost all of the work is done by Chinese mechanics using old-fashioned hand methods. More than half of the approximately 22,000 private passenger cars are owned by Chinese who use the facilities of the small Chinese

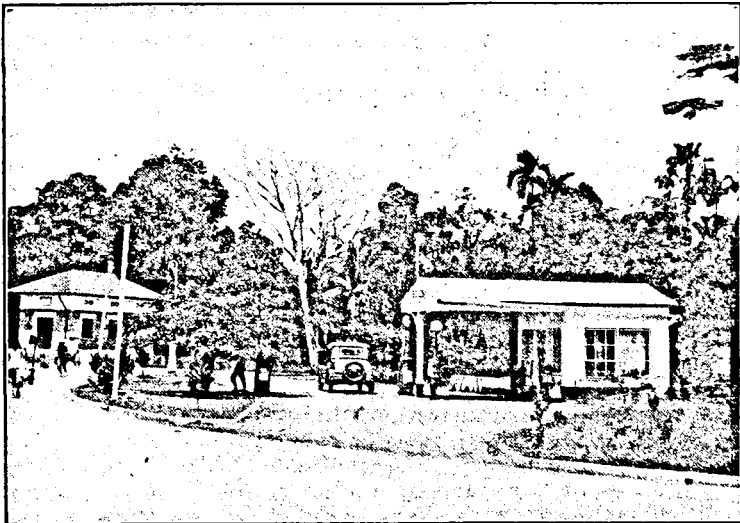


Figure 3.—Service facilities in the Orient. New gasoline filling station in Singapore

garages. The remainder are owned by Europeans who use dealers' garages for important service work and the Chinese garages for minor repairs. Practically all the better-class private cars are driven by native chauffeurs who have little to do during the day and who take great pride in the cars which they drive. These chauffeurs are continually working on their cars, washing, oiling, greasing, and so forth. It is seldom that these cars enter a garage unless repairs of a serious nature must be made.

Good service is desired for only about one-fourth of the car owners in Malaya. Hence the real development will be slow, and large, immediate sales can not be expected.

Most of the good sales prospects have already been sold. Future sales will be made to big garages which have been slow in adopting additional modern methods or to small Chinese garages whose capital is limited at all times but particularly so during the 1930-31 business depression.

There are thousands of Chinese mechanics working in garages—a few under European supervision with modern equipment but the

large majority in Chinese garages using hand tools and antiquated methods. These mechanics can not be considered properly trained when compared with American standards, but they all know automobiles and can usually service cars in a satisfactory manner.

With the exception of a small amount of locally made equipment—such as ramps, towing and salvaging equipment, etc., which will always be made locally because of lower prices, and some European jacks, air compressors, gasoline pumps, and tools—most of the equipment in use is American. All the larger and expensive apparatus, practically all of the small technical necessities, and most of the small tools are of American manufacture. American lines now selling in the market were the first to be introduced, and their good quality, coupled with fair price and the fact that they are made to fit American cars, has made it difficult for other manufacturers to compete. Small tools sold on a price basis are an exception. It must be remembered that price is a most important factor in selling to local buyers and that the firm quoting the lowest price on articles of fair quality will always get the business.

Unless a direct traveling representative of an American manufacturer can be stationed in this country for a length of time sufficient to demonstrate, sell, install, and educate the mechanics in the use of modern service equipment, it is probable that the best method of selling is through a wholesaler or manufacturers' agent. The local connections and the sales ability of the firm under consideration should be the deciding factors in selecting this agent, since the possibilities are so limited that the carrying of large stocks would not be practical.

All of the big garages are operated by automobile dealers, but there are thousands of small Chinese repair shops scattered around the country which do service and repair work. Electric current is available to all of these shops at a fairly low rate, and the majority of them are already using electric tools. Much mechanical equipment is used in the large and small shops, but their use has been restricted because of the conservative attitude of the Chinese workers, the lack of knowledge of their proper use, and a shortage of ready cash to purchase the necessary equipment.

In view of the fact that about 62 per cent of the automobiles in Malaya are concentrated around the five large towns of Singapore, Kuala Lumpur, Ipoh, Malacca, and Penang, and that the large majority of these owners who want good service facilities live in these towns, they should serve as the centers of any sales campaign on service and garage equipment. Singapore, where almost a quarter of the cars in the country are located, would be the central distributing point.

All firms interested in the automobile trade, whether through selling cars, accessories, replacement parts, or garage equipment, have their head offices located in Singapore, and they cover other centers by means of branch offices or traveling salesmen. Another great advantage of using Singapore as the central distributing center is the ease with which shipments can be made to the important neighboring markets of the Netherland East Indies and Siam.

It is extremely difficult to suggest proper terms for selling in the Malayan market. The large garages are well able to pay cash on

delivery for any equipment which they purchase, while the smaller garages are not in such a fortunate position, and most of their purchases must be made from firms which will grant them credit. This is particularly true of the big lines when a large amount of money is involved. Accordingly, the manufacturers of garage and service equipment should be prepared to assist their local agents in granting credit terms if this assistance is requested.

The following comments on various lines of garage and service-station equipment are of interest:

There is a good demand for air compressors, with most of the important garages equipped already, but there are several good additional prospects. Battery chargers, garage tools, portable drills, reamers, and wrenches all enjoy good sales. There is a good demand for valve grinders and facers, with nearly every garage equipped with American products. Welding outfits have a fair demand, which is supplied by a large French company and by English manufacturers. Paint-spray equipment is in fair demand, with many shops already sold. There is one brake-testing machine already installed, with prospects for other sales slow. The same condition exists for cylinder-boring machines, cranes, high-pressure chassis-lubricating and grease-dispensing systems, and wheel-alignment equipment.

There is no demand for auto lifts or car washers, since cars are washed by native chauffeurs or boys. The only possible sales outlets for gasoline pumps are through the oil companies. There are possible future sales of hydraulic jacks to large garages, but an excellent demand for mechanical jacks, with the larger ones coming chiefly from the United States and the smaller ones from Europe. Oil and grease guns have a poor demand. Oil-dispensing pumps are seldom required, owing to the tendency of local owners to buy oil in gallon lots.

It is reported that there is one mechanical tire changer in the territory. All tires are changed by hand tools by coolies, whose wages are extremely low. There is a good demand for vulcanizers, which are supplied chiefly by American tire companies selling through branches in the territory. There is no demand for towing and salvaging equipment, owing to the prevalence of locally manufactured equipment.

## CEYLON

**Replacement Parts Demand Fair; Accessories Good—Unfavorable Economic Conditions Prevent Growth in Sales of Garage and Service-Station Equipment**

Consul Stillman W. Eells, Colombo, Ceylon

Motor-vehicle registrations as of January 1, 1931: 15,119 passenger cars, 2,629 busses, 2,979 trucks, and 3,512 motor cycles.

### REPLACEMENT PARTS

For a number of years American automobiles and trucks have dominated the Ceylon market, although, owing to the unusual conditions prevailing in 1930, sales of British motor cars were greater than those of American makes. Motor cycles are almost entirely of British origin.



Some of the more important items of replacement parts are: Ball and roller bearings, brake lining, bushings, clutch facing, fan belts, spark plugs, springs, valves, piston pins and rings, gears, drive shafts, generator parts, rims, and rim parts.

It is estimated that sales of American products account for about 60 per cent of the business.

About the only parts made locally are those constructed to avoid the delay in obtaining parts not carried in stock. A considerable business is done in American-made parts for English cars. Recently competition from French manufacturers has developed.

The only important garages are those operated by the dealers or their agents, and nearly all of the business in replacement parts is carried on by them. In as small a market as Ceylon this seems to work out satisfactorily, and there appears to be no possibility of an immediate change.

Owing to present conditions D/P terms are usual; there is apparently little competition on the basis of terms.

The only important distributing center is Colombo. All motor car and truck agencies are held by Colombo firms, and these in a few cases maintain branches and in others appoint subagents in other parts of the island. These agents carry small stocks of parts, since they can be obtained from Colombo in a day for any part of the island.

The merchandise marks ordinance is strictly enforced in Ceylon, and many dealers have experienced difficulty when importing American parts and accessories, because this ordinance was not complied with. In every place where English words are used, whether on the container or in the article itself, the country of origin must be stated. It is not sufficient that the name of the place of manufacture be given, but it must be stated that the goods were made or manufactured there. The words "Made in U. S. A." are satisfactory, but these words must be so conspicuous as to immediately catch the eye along with the rest of the label or trade-mark.

The only advertising media of importance in Ceylon are the newspapers, which cover the field satisfactorily.

#### ACCESSORIES

There is a good demand for automobile accessories. This was formerly confined to a few articles but in late years has increased both in quantity and variety. There is little strong salesmanship in Ceylon in any line, and the practice of furnishing a greater number of accessories as standard equipment on the higher-priced automobiles has stimulated sales. It would seem that this business is capable of further expansion, particularly if dealers would make an active attempt to push these lines and manufacturers would cooperate in advertising.

The following items are among the most popular: Bumpers; heat indicators; bulb and electric horns; lights, particularly parking; rear-view mirrors; tire gauges and pumps; jacks; novelties; and seat covers.

It is estimated that about 50 per cent of the accessory business in Ceylon is American.

Some tire pumps and jacks of American origin have a poor reputation in Ceylon for quality, possibly because many of them are not built suitable for local conditions. Seat covers are principally made to order locally. It is thought that with proper merchandising more business could be developed in wind-shield visors and cleaners. Novelties such as ornamental radiator caps are popular, but owing to petty thefts only such items as can not be readily removed have a large sale.

Distribution methods are very much the same as for replacement parts. Competitive lines are seldom handled by the same company, and the common practice is to sell to an exclusive distributor. If the nature of the article permits, better coverage is obtained by selling direct to wholesalers. Stocks are generally carried.

Terms vary, but it is understood that there is little competition on this basis. At present D/P terms are customary. Recently French and German manufacturers have obtained considerable business, this competition being chiefly on a price basis.

Accessories are principally stocked by car agencies. There is only one large firm dealing exclusively in accessories.

A law was passed some time ago requiring all hiring cars to have taximeters, but owing to the lack of an available supply, the law was not enforced. It is still planned to bring it into operation.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are several well-equipped garages in Colombo, but most of the upcountry garages and service stations do not have adequate equipment. Owing to the unsettled condition of the trade, and particularly to the failure of a large number of motor-car dealers who operate the largest garages, there is little possibility of development at the present time.

Native mechanics are employed and are reasonably capable, provided they are properly supervised.

There has been a tendency, owing to the extremely low price of native labor, to avoid the use of labor-saving equipment, but it is thought that this has been carried too far, and in many cases economies could be effected and better results obtained with additional equipment.

Practically no equipment is made for sale locally. Some shops make a small amount of equipment for their own use. It is unlikely that there will be any extension of this practice.

Welding outfits are imported almost solely from England. It is thought that well over half of the garage equipment imported comes from the United States. Polishing machines, air compressors, auto lifts, and portable drills are needed.

Many of the inland towns lack electric current, but it is expected that this condition will gradually be remedied. The lack of uniformity and the total absence of electric current in many places have hindered the sale of service-station equipment.

Most garages are operated by automobile dealers.

Hand tools for changing tires predominate. Most of the repairing is done in repair shops. There is a great number of small repair shops operated by natives, chiefly dependent on motor-cycle

and tire repairing. These seldom have adequate equipment. Although their capital is negligible, in normal times, it is thought, this field has possibilities.

It is difficult to determine what the best selling method would be. At present only one firm in Ceylon carries an appreciable amount of service-station equipment. Most equipment is imported direct. The only firms which would consider handling this equipment are those who also operate the largest garages, and they do not have a strong desire to sell better equipment to their competitors.

Sales should be made only on D/P terms, under present conditions.

The only distributing center of importance in Ceylon is Colombo. Agencies should be given only to Colombo firms.

The potential market is small, but with the return of normal conditions it is thought that there will be a substantial increase in the sale of garage and service-station equipment.

### CHINA (INCLUDING HONG KONG AND MANCHURIA)

*Trade Commissioners A. Viola Smith and John J. Ehrhardt, Shanghai, and Assistant Trade Commissioner David M. Maynard, Hong Kong*

Motor-vehicle registrations as of January 1, 1931: China, 23,678 passenger cars, 5,199 busses, 7,894 trucks, and 1,981 motorcycles; in Hong Kong, 1,945 passenger cars, 175 busses, 501 trucks, and 480 motorcycles.

#### THE SHANGHAI AREA

The market for replacement parts, accessories, and garage equipment is relatively small. There are approximately 40,000 motor vehicles in the whole of China, including Hong Kong and Manchuria, and one-third of the total registrations is in the restricted area of Shanghai. The lack of highways, other than city streets, precludes long-distance travel except where operated by motor-bus transportation companies, whose equipment is still very primitive when contrasted with similar transportation facilities in the United States. Busses fitted with a crude type of locally built bodies furnish to China a very cheap kind of transportation for the public, which has not yet become sufficiently acquainted with the comforts and luxuries of motor travel to demand more improved equipment.

In the passenger-car field practically every model of American car coming into the market is especially equipped with numerous accessory features for the export field, which are not standard equipment in the home market. The cheapness of Chinese labor makes it possible for practically every owner to have a chauffeur, with the result that the demand for many articles ordinarily sold in the domestic market does not exist in China.

Large stocks of spare parts and accessories are maintained in Shanghai by the manufacturers of two low-priced American cars for the benefit of their China dealers. Lesser stocks are carried by distributors for other makes of cars. These parts depots greatly lessen the small market which does exist for independent equipment manufacturers.

The Chinese generally do not appreciate proper care or treatment of machinery or mechanical equipment. A car is run as long as it can be kept going by one device or another, and no thought is given

to necessary replacements. This failure to appreciate the economical value of maintenance and upkeep further restricts sales. As a consequence the business offered is so small in volume that it does not justify any one agent specializing only upon automotive equipment. Several American import houses and manufacturers' representatives handling agencies for a number of well-known automotive lines regularly canvass the trade. There are no jobbing houses. Only four Chinese firms in Shanghai are sufficiently well established to warrant direct sales to any appreciable extent. These dealers maintain limited stocks from which both retail and wholesale sales are made, the latter business being principally that received from outport or interior points.

Relatively few service appliances are to be found anywhere in China. Their introduction into Shanghai, which has one-third of

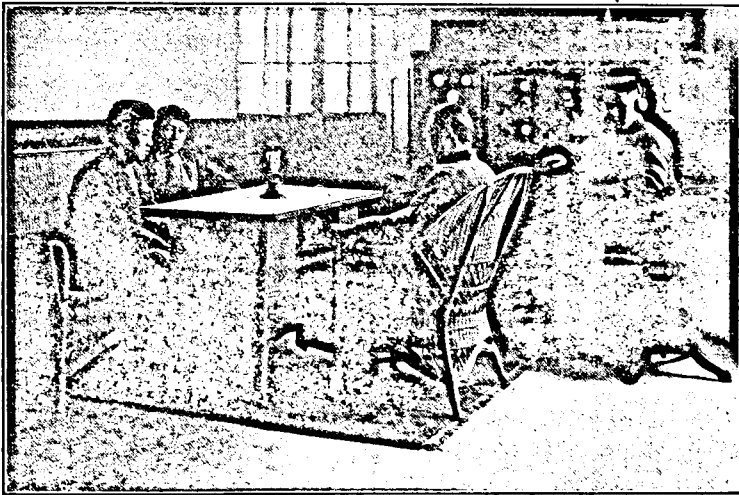


Figure 4.—China on the air. A Shanghai motor firm sells service through its own broadcasting station

the motor cars of the country, has been sporadic. Such equipment as is found has been installed in the few foreign garages. Chinese garages have not yet overcome the usual practice of using manual labor for all things.

America is estimated to have 90 per cent of the accessory and replacement-part business. A slight amount of British competition occurs on horns, carpet matting, aluminum molding and sheets. Germany's strongest competition is in tools, while Japan undersells on cotter pins, rivets, and bulb horns.

For certain lines local production, though obviously not so good, supplies the need at a much lower cost. Such items are individually commented upon later.

Trade-mark protection is accorded to both Chinese and foreigners under China's new trade-mark law, but patents are limited to Chinese nationals.

A general idea of the markets in the leading trade centers throughout China may be gathered from the following résumé:

*Amoy.*—Dealers usually carry small stocks of simple parts and accessories.

*Canton.*—Small stocks for principal repairs carried by 10 garages. Stocks are usually drawn from Hong Kong firms, for whom these garages act as subagents.

*Chefoo.*—Automotive products are not stocked, supplies being drawn from Shanghai or Tientsin.

*Dairen.*—Four garages with service stations and five dealers have a combined stock approximating \$10,000 to \$20,000, gold, in value.

*Foochow.*—No stocks carried locally. All replacement parts and accessories drawn from Shanghai, which is two days distant.

*Harbin.*—The majority of the 12 important dealers stock a limited supply of parts and accessories.

*Nanking.*—Four or five garages stock limited amounts of parts and accessories, supplies being drawn from Shanghai.

*Tientsin.*—Replacement parts and accessories are stocked in a limited way by the principal motor-vehicle dealers, who in turn act as wholesale distributors to small Chinese retail shops. American-made accessories dominate.

*Tsinan.*—Stocks to the extent of about \$500, gold, in value are carried by four garages. Considerable competition from British and German merchandise exists, though American accessories are popular. Supplies purchased through Tientsin, Tsingtao, or Shanghai, with no direct importing done.

#### REPLACEMENT PARTS

Ball and roller bearings have a good volume, with a few German ball bearings on the market, and prices from 30 to 40 per cent below those quoted for American goods. A fair business is done in bronze bearings, but garages more often take out bronze ball bearings, remove babbitt, and recast. Belts for fans, pumps, etc., are in good demand, especially fan belts. There is a fair market for bronze bars, which are made up by garages into bushings when needed. A good demand exists for motor valves, with business principally confined to cheaper types of valves, as low-priced cars predominate. Pistons have a good sale, chiefly the finished product. There is a tendency toward purchasing more aluminum or lynite pistons. Piston pins are in good demand, but a difficulty arises in attempting to carry stocks, owing to the many sizes requested. There is a good business in piston rings.

The demand for carburetors is confined chiefly to low-priced car types. Practically no drive chains are sold. Fans are sold, but only to a limited extent. There is a small sale for radiators and radiator parts, as well as shims. Good sales are reported of gaskets, both copper and asbestos and cork, while ignition cables have fair sales. A small business is done in fabric and metal timing gears as well as timing chains. American spark-plug manufacturers do a large business, with competition from British and German makes. Starting, lighting, and ignition equipment is ordinarily not stocked, but indented on special order as needed.

There are a few axle shafts sold, these being chiefly of low-priced car types. The sale of ball and socket joints reaches a fair volume, with the principal business in North China and Manchuria. Brake assemblies have a fair business but are supplied principally by local warehouse depots of American manufacturers. Brake linings are sold to a greater extent than any other single item. A good business is also done in clutch linings and facings. Some business is done in rims and rim parts, but difficulty is experienced in carrying stock, owing to the diversity of sizes. There is a fair market for differential assemblies and no demand for fenders or frames, the former being made locally to a sufficient extent to supply the needs. This statement also applies to hoods. Illuminating and signal lamps find a fair volume of sale. A good demand exists for lamp bulbs, but heavy competition is furnished by Phillips lamps from the Netherlands, which are approximately 20 per cent below the American prices.

There is a fair business for lubricating systems and parts for chassis, these articles being required now and then for replacements. There are also fair sales of springs and leaves, chiefly for two low-priced makes of American cars. Very few steering apparatus and parts, drive shafts, meters, tie rods, speedometers, and gas and oil gauges are sold. The valves enjoy a fair sale, but no market exists for tire locks. Transmission gears and pinions, as well as transmission linings, enjoy fair sales, chiefly for low-priced American cars. Copper tubing for gasoline or oil lines is carried by hardware shops rather than automotive dealers; there is a considerable sale, chiefly of British and German manufactures. Fair sales of universal joints and parts are reported. No stocks of wheels and wheel parts are carried by dealers.

There is no demand for complete bodies, since all bodies for trucks and busses are made locally. This also applies to body hardware, window regulators, tops and bows, and seat covers. Fair sales of windshield and window glass exists, especially of European manufacture. A good market exists for top materials in the bolt, and a good business is done in curtain fasteners. A fair business is reported for floor coverings, with European products in chief demand. Rubber mats supplied from large stocks of rubber goods carried at this port by the principal rubber manufacturers are in demand.

#### ACCESSORIES

With less than 40,000 motor cars in all China, including Hong Kong, Macao, Kwantung (leased territory), etc., the majority of which are operating as hire cars and in motor-bus transportation service, it will be readily understood why China is a negligible market for accessories. Furthermore, most important passenger cars, especially American, are especially equipped with accessories. This tends to further reduce the demand.

There is no market for ash receivers, cigar lighters, automobile and car locks, radiator shutters and shields, windshield wipers, air cleaners, or purifying devices. Baggage carriers are not required, as no highways exist for pleasure motoring and the motor-bus services utilize the tops of busses for carrying passengers' effects. No market

exists in central or south China, as moderate climates and restricted city use of motor vehicles make nonskid chains unnecessary. In north China and Manchuria a small market exists, as in this area heavy snows and rains are experienced. Very few car heaters are sold; the only possible market would be for private or hire cars in treaty ports during the short though cold winter months. It would require, however, an extremely aggressive salesman to overcome local prejudice.

Electric horns have a good market, owing to the enormous amount of pedestrian traffic. American electric horns supply the greater part of the demand. The market is also good for bulb horns, with Japanese competition keen. A small volume of automobile jacks is sold for replacement purposes. This statement also applies to radiator and heat-indicating locks, shock absorbers, and mirrors. Local production supplies the demand in bumpers, radiator covers, and tire covers.

The Chinese are favorably inclined toward radiator ornaments, but dealers report that the rapid changes in style kill the possible trade. In north China and Manchuria radiator covers made of fur rugs are utilized. No taximeters are used in China proper, although a few have been installed in Hong Kong. A fair market exists for hand tire pumps and tire pressure gauges. Wind-shield cleaners are sold mostly in automatic types, although a few hand cleaners are sold.

#### SERVICE APPLIANCES

A few air compressors have been sold to foreign garages which endeavor to give a better class of service. Further introduction is limited, owing to the practice adopted by the leading oil companies, who supply and install free of charge air standards at practically each gasoline-pump station. Approximately 50 free standards are in operation in Shanghai at present. A limited number of air compressors for paint spraying have been sold to high-grade foreign garages. The public-works department of the Shanghai municipal council has recently installed an automatic paint-spraying machine on the municipal jetties under its jurisdiction. There is no market for air and water towers and scarcely any market for brake-relining machines, not more than an average of one machine per year having been sold in the Shanghai market within the last three or four years. Battery charging and testing appliances are found in most of the foreign garages, which employ simple apparatus for testing battery chargers, but very few possess any other type of testing apparatus.

The first car-washing machinery was introduced into Shanghai about two years ago, since which time about six washing machines have been sold and installed in foreign garages. This type of machinery has prospects of fair demand developed when business conditions improve. Very few engine stands are in use. They are only three garage cranes in Shanghai, though almost every foreign garage has some type of chain hoist. Garage creepers are made locally at a nominal cost and are used in the various garages. There are limited sales for paint-spraying equipment, probably about 20 units being installed in Shanghai.

Foreign garages usually have at least one small and one large electric drill and one each of the bench grinders, valve grinders, and

valve refacers. No electric socket wrenches are in use. There are approximately 30 garage jacks used in Shanghai, and one American concern carries a small stock. Small, inadequate stocks of automotive reamers are carried. Until recently there were no markets for service runways. A few of the more modern foreign service stations have installed within the last two years service runways of wood or cement type. In recent months, however, a tendency has been shown toward utilizing hydraulic lifts, six having been installed in Shanghai. Small stocks of wrenches are carried. Three wrecking cars equipped with cranes are in use in Shanghai. In tire-service equipment the vulcanizing is chiefly done by Chinese small dealers, who are equipped with the minimum amount of modern apparatus. There is no market for tire spreaders or rim tools or mechanical tire pumps.

#### NORTH CHINA

The following comments cover the north China market of Tientsin and Manchuria. The demand for articles of this sort is limited, owing to the fact that there are only about 5,000 motor vehicles in north China. American participation is further restricted by the fact that a considerable number of the total vehicles are of European origin. The general market for service station and garage equipment is naturally small, as the 5,000 cars mentioned above are distributed fairly widely over an area of some 250,000 square miles.

#### REPLACEMENT PARTS

The automotive market in north China, although it has shown a reasonably steady growth during the past few years, is generally considered unimportant from the standpoint of the individual manufacturer. The total number of motor cars in the district is increasing slowly.

Between 70 and 80 per cent of the vehicles in use in north China are believed to be of American manufacture, and American parts, accessories, etc., are generally demanded for these vehicles. Owing to generally poor roads and the inexperienced handling which most cars receive, the depreciation is fairly high. However, the average Chinese owner or driver does not demand that his car be kept at the highest point of efficiency, and new parts are not always purchased and installed when they should be, frequently not until absolutely necessary.

The articles in chief demand include brake linings, fan belts, spark plugs, valves, piston rings, springs, etc. Simpler items such as body hardware are in but small demand and in some cases are produced locally or imported from Japan and Germany. There is but little sale of pistons, bearings, pinions, drive shafts, and other such parts. Distribution is generally handled by automotive dealers. Owing to the limitations of every phase of the automotive business, people engaged in this line generally act as importers, wholesalers, and retailers of cars, parts, and accessories. Most of the existing dealers have agencies for one or more cars and for such parts and accessories as they can profitably handle. Most of them operate a garage repair shop and a gasoline pump in addition to their agencies. Most of



them have their headquarters in Tientsin, the commercial center of the district, and maintain a small shop or subagent in Peking.

Local representatives of American manufacturers are usually required to import on a cash basis, local banks supplying letters of credit, documents against payment, on which they grant a dealer a certain amount of leeway, holding an equity in the cargo as security. Local transactions are usually on a cash or 30-day basis. Some European manufacturers, particularly Germans, extend more liberal terms to their local representatives, although there is no set standard.

The leading distribution center in north China is Tientsin. Nearly 3,000 of the total vehicles are owned and operated in Tientsin and Peking, which two cities represent the principal automotive market.

Competition among the various dealers handling replacement parts is not particularly keen. Although the business is limited and

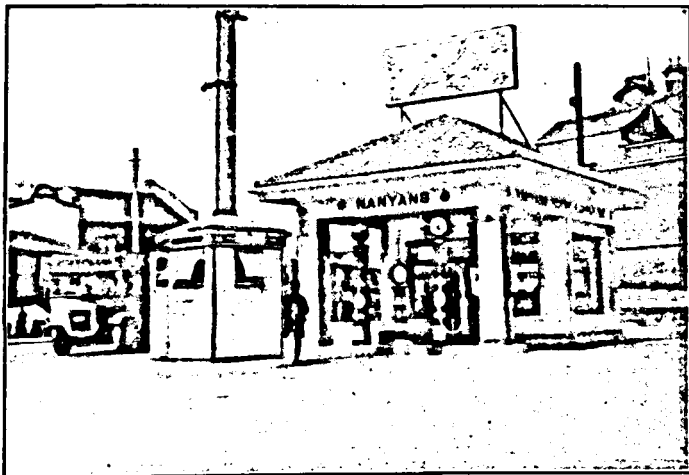


Figure 5.—A modern service installation in China

each dealer is anxious to obtain as large a share as possible, consumers are not easily influenced. The average owner takes his car for service and repairs to the dealer from whom he purchased it, and this dealer is presumed to have on hand the parts which may be required. Thus American cars are usually fitted with American replacement parts, and those of other nationalities are generally supplied with parts designed by their own manufacturers. In the case of interchangeable parts, American products are generally favored, and most dealers in European cars carry American lines.

It does not appear that any definite increase in the American share of the business can easily be gained at this time. As indicated above, the entire market is no larger than that offered in an average American city of some 35,000 inhabitants. It is not only spread over an area of some 250,000 square miles, but also includes a number of European cars on which American replacement parts occasionally can not be utilized.

## ACCESSORIES

The market for automotive accessories in north China suffers from the same limitations ascribed to replacement parts. In addition, the average Chinese purchaser expects a motor car to be complete when delivered to him. He is not a habitual buyer of additional accessories.

As a result of the local popularity of window shades, cigarette lighters, flower vases, and other such novelties, most dealers install these articles on each car for sale to Chinese. There is but a small demand for the subsequent installation of accessories. The principal demand occurs in the case of replacements of nonskid chains, tools, headlights, and other such breakable and wearable parts.

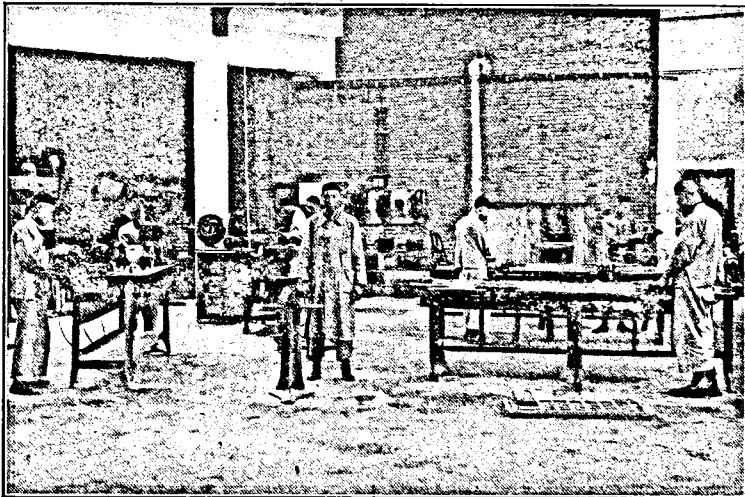


Figure 6.—In shops such as this service is given to the automobiles assisting in China's development

The accessory business is even more limited than the market for replacement parts. Business in accessories is generally handled in the same manner and by the same firms that handle replacement parts.

## GARAGE AND SERVICE-STATION EQUIPMENT

As stated above, most dealers in automotive lines carry on a garage and repair business in addition to selling automobiles, parts, and accessories. Their general equipment is hardly to be compared with that in use in modern garages and repair shops in America, but the volume of business at the present time is too limited to justify the installation of expensive equipment.

Some machine tools are employed, but hand labor is utilized where possible. Most garages employ one or more trained European or American overseers and a number of Chinese mechanics.

Among the articles in general use are air compressors, battery chargers, garage tools, gasoline pumps, oil and grease guns, and similar simple equipment. A few of the larger dealers employ machine-shop equipment, but none has found it economical to introduce any quantity of modern mechanical labor or time-saving devices.

There is but a small demand for gasoline-station equipment. Most of the automotive dealers dispense gasoline and have one or more hand pumps in the immediate vicinity of their salesroom and garage. There are few other gasoline stations, the demand hardly justifying their operation.

American manufacturers are believed to be well represented by a number of import houses handling mechanical and engineering lines, also acting as agencies for American products of this type. No appreciable increase in demand is expected in the near future, most of the present garage and repair-shop owners being sufficiently well equipped to handle the limited demand for repairs.

#### SOUTH CHINA

While American parts and accessories predominate in this market, it is only natural that with over one-third of the motor cars in Hong Kong of British make, that British accessories and replacement parts would enjoy a good share of the business. Most of the items in replacement parts are handled by dealers representing the various makes of automobiles. There are also a number of accessory shops, some of which also handle replacement parts.

Price is the outstanding factor in this market, and it can not be overemphasized. For example, there are now a few bumpers for trucks made locally in Hong Kong. They are not nickle plated and do not have the strength or finish of the standard imported bumpers, but they appeal to some local truck purchasers since they sell for \$15, Hong Kong currency, while the imported item retails at several times this figure.

English bulb horns are popular in this market, the bulbs for them usually being made in Japan. There are no taximeters used in Canton, while those in Hong Kong are all British. There are a number of German ball bearings sold in the market, prices ranging from 10 to 20 per cent below the American product.

In Canton it is impossible to find a single properly trained mechanic. It is understood, however, that an American automobile firm has plans under way to open a school in Canton to train mechanics. At Hong Kong there are three or four well-trained European mechanics and a handful of self-trained Chinese. In Canton there is practically no modern equipment used in the garages, and hand tools predominate. There is a certain amount of vulcanizing done, but repair shops are hesitant about patching large-sized tires as they find that the overloading which is so common is especially hard on the repair of bus and truck tires. There are no touring or salvaging cars in Canton. In Hong Kong there are six garages which have a fair supply of modern equipment, including service cars.

## INDIA

**Present Demand for Replacement Parts Good; Accessories Declining; Service Appliances Showing a Steady Growth—American Participation Predominant, but Competition from European Countries Steadily Increasing**

Assistant Trade Commissioner Paul L. Hopper, Calcutta, and Vice Consul Winfield H. Minor, Bombay

Motor-vehicle registrations as of January 1, 1931: 117,517 passenger cars, 25,924 busses, 31,009 trucks, and 15,729 motor cycles.

The motor vehicles in operation in British India, 77 per cent of which originate in America, possibly require more replacement parts per unit than any similar number of vehicles elsewhere in the world. This rapid deterioration of essential working parts can be attributed to the tropical climate, inefficient car operation by Indian drivers, the scarcity of service facilities, and the lack of good roads in all parts of the country, excepting those areas in the immediate vicinity of the major cities.

## REPLACEMENT PARTS

While the demand for replacement parts fluctuates with the importation of automobiles in normal times, sales are accentuated through periods of depression, since trucks and busses are frequently retained in service three or four months beyond the usual interval of operation.

The items in the order of their approximate demand on the Indian market are ball and roller bearings, brake lining, valves, rims and rim parts, drive shafts, gears and pinions, springs, spark plugs, starting and lighting generators, piston rings, clutch facing, pistons, driving and timing chains, fan belts, bolts, piston pins, stampings and forgings, shims and shim stock, and body-upholstery material.

Responsible houses of good financial standing in Bombay or Calcutta having adequate distribution facilities and acting as direct factory representatives offer the most efficient means of marketing replacement parts, accessories, and garage equipment throughout India. These firms seldom carry competitive articles as they prefer to concentrate on one complete line.

These concerns carry stocks with their branches in the important cities and employ salesmen to call upon the small dealers in those districts. As approximately 80 per cent of the retail business in these lines is handled by bazaar shops, the car agencies, garages, and service stations gain but a small share of the trade. In order to cater to this bazaar business, several reliable firms now specialize in the representation of parts, accessories, and garage equipment. They procure supplies of guaranteed quality from the cheapest available sources. As many of the American standard lines in pistons, rings, pins, ball bearings, gears, horns, and springs are now being copied in Germany and sold for 50 per cent below the price of American-made articles, the present dominant position of the United States as exporter of 75 per cent of this equipment used in India is being influenced by competition based on price differentials. Germany and the United Kingdom are our chief competitors, with France and

Italy claiming but little share in the trade. Few articles of this type are now made locally, but subsequent years will probably see some development in this direction.

One of the lines in which German competition has been felt most keenly is that of brake lining, and American manufacturers are likely to be faced with serious competition in this division of trade because of the cheapness of German products, unless they are able to reduce their prices to a point where it will be possible for them to maintain control of the market. German manufacturers are now reported to enjoy nearly 40 per cent of this trade, principally at the expense of American producers.

Several of the well-known German makes are being marketed at prices running from 18 to 27 cents per foot, according to width and thickness. British brake lining sells for 41 cents per foot, and American prices range from 27 to 36 cents per foot for material similar to but perhaps better in quality than the German products. The prices quoted at the present time for German makes are based on the American standard sizes, with current discounts of 85 and 10 per cent c. i. f. Bombay.

Credit terms range from a letter of credit to sales on open account, depending upon the reliability of the agent, but, in general, 60 to 90 days' documents against payment are usual. American manufacturers occasionally give terms more lenient than foreign exporters, but such treatment is not to be encouraged except when dealing with long-established reputable firms.

Bombay, Calcutta, Rangoon, Madras, Lahore, and Karachi rank in the order named as centers of distribution. A representative in Bombay, India's greatest manufacturing center, can handle all the Bombay Presidency, part of the Central Provinces, and the Indian State of Hyderabad. A distributor in Calcutta, the chief industrial center of India, usually covers the rich Provinces of Bengal, Assam, Bihar and Orissa, and part of the United Provinces. Rangoon serves as the principal port and commercial city for all Burma, and Madras dominates the trade of the Madras Presidency and portions of the Indian States of Mysore and Travancore. Motor-service facilities are more highly developed in Madras than elsewhere. This Province boasts more miles of surfaced highway per square mile of area than any other State in India. Much of the trade of progressive Punjab passes through Lahore, which also serves as a distributing point for the Indian State of Kashmir and the North West Frontier Provinces. The Sind, Baluchistan, and Rajputana are accessible to an agent located in Karachi. Ceylon can be readily handled from Colombo.

#### ACCESSORIES

The sale of accessories has decreased proportionately as automobiles have become more completely equipped from year to year. Manufacturers in the United States enjoy about 95 per cent of the Indian accessory business for American cars. Germany and the United Kingdom furnish the bulk of this equipment used on cars of other than American origin.

It would appear that German manufacturers have made strenuous efforts in recent months to obtain a larger share of the Indian im-

port trade in accessories, and that they have met with success in certain lines heretofore largely controlled by American manufacturers. This stimulated effort probably has been due to the desire of the German manufacturers to avail themselves of the opportunities offered through the boycott movement which the Indian population has directed against foreign goods, particularly British.

The following comments are made concerning accessory items and their demand in this market:

Seat covers are made locally. Body hoists are seldom used, while nonskid chains, radiator shutters and shields, and wind-shield visors have no demand. There are small sales in bumpers, heat indicators, and lubricating systems. Hood and radiator covers are very little used, and tire covers are supplied free by advertisers. Glare eliminators are unnecessary as headlights on full power are not permitted in the larger cities. Bulb horns of German, British, and French manufacture sell considerably lower than similar American articles, but these are popular only in districts where electric horns are prohibited. In Calcutta a city ordinance compels the use of bulb horns. American and German electric horns sell at identical prices, but the former are more popular.

Cheap jacks of British make are preferred, although a fair number of American makes are sold. A small number of lamp lenses and mirrors is sold for replacement. License plates are made locally. Few head, rear, stop, or parking lights are sold, but some demand exists for side lamps, which are seldom included as original equipment on American cars and are prescribed by police regulations. Theft-proof locks are seldom employed, as an Indian servant is invariably left in a parked car to prevent theft of batteries, lights, horns, and spare tires. Some luggage carriers and trunk racks are imported from England, but much of this equipment is made by local blacksmiths. A British pump, sold by Dunlop, is popular in this country, but tire pumps are easily broken by the native and are not universally used. Cars are seldom fitted with shock absorbers if not included in the original equipment. German taximeters seem most popular with taxi drivers. Some tire gauges and French novelties are sold. Car heaters have little demand in this warm, humid climate.

Some accessories are stocked by car distributors, garages, and service stations, but, as in the case of replacement parts, the bazaar shops control the trade.

#### GARAGE AND SERVICE-STATION EQUIPMENT

An increasing number of garages and service stations are being constructed in India each year, but as yet few of these are comparable in equipment and service with modern shops of this type in America. Few skilled mechanics are available, but one or two large distributors of American cars, having their own garages, arrange for young Indians to be given practical instruction in car repairing. While most car distributors operate some service facilities in connection with their showrooms, there also exists a large number of independently owned garages and repair shops.

American equipment is given preference throughout India, but competition from British jacks, air compressors, battery chargers, and small tools is steadily increasing.

Rapid installation of mechanical equipment will be retarded by lack of capital among small Indian garagemen and a reluctance to change from hand to mechanical methods of carrying on the work. Repairing is accomplished in the vulcanizing shops.

Electric power varies in voltage throughout India, but most of the larger cities have alternating current of 220 volts, 50 cycles, or direct current of the same voltage. Transmission lines are being extended to outlying districts so that in the future current will be available wherever desired.

Garage and service-station owners see the growing necessity for complete equipment in their shops, but little expansion can be expected until economic conditions have improved.

A brief discussion of the principal articles of garage and service-station equipment is made, as it is not possible to arrange a list in order of their demand.

Electrically driven air compressors are generally used, as the hot climate and high humidity prohibit the use of hand inflators. Few auto lifts are to be seen. Battery chargers are numerous, and the simple types are in most demand. Few brake-testing machines have been installed, but sales of the types operated by hand are increasing. An Indian servant using a cloth and bucket of water seems sufficient for car washing. Cylinder-boring machines are not in general use, although a few cylinder reamers have been installed by the larger garages. Cranes sell slowly, and gasoline pumps are furnished by the gasoline-supply companies. Some hydraulic jacks are sold. High-pressure chassis lubricating systems are becoming more popular as service stations increase in number. A good sale is enjoyed by oil and grease guns, oil-dispensing pumps, paint-spraying equipment, portable electric drills and reamers.

Numerous coolies loitering in the streets furnish adequate towing facilities to enable any car to be pushed to a pump or garage, so that towing and salvaging equipment are never necessary. The better garages are now equipped with electric valve grinders and welding outfits, and wheel-alignment equipment is being installed in the larger shops. A fair number of wrenches are sold throughout the year.

As garages and service stations become more numerous in India, competition will force the larger garages to install the most modern equipment in order to render efficient service to the increasing number of automobiles.

Although only 8 per cent of India's population is literate in English or any of the Indian languages, newspaper advertising still presents the most effective method of reaching the people responsible for conducting the business of the country. The following languages are most widely understood in the respective sections of India: Hindi in Punjab, United Provinces, Bihar and Orissa; Mahrati in Bombay, Sind, and Rajputana; Bengali in Bengal and Assam; Tamil in South India and Ceylon; and Burmese in Burma.

Unlimited optimism is to be avoided when surveying the potentialities of the Indian market for parts, accessories, and garage

equipment, and careful consideration should be made of the retail distributing system carried on largely by bazaar shops.

Before selecting distributors, American firms should carefully investigate the position of leading houses catering to the Indian trade with a view to determining if they possess facilities for efficient distribution in only one section of the country or if they maintain sufficient branches to cover the whole of India, Burma, and Ceylon. The financial standing of a representative under consideration should be carefully scrutinized and a definite understanding had as to the method of meeting drafts.

Competition from continental sources, particularly Germany, will undoubtedly increase, but the United Kingdom is not likely to gain an increasing share of the business, since some British manufacturers are now buying from continental producers for resale in India. Many years will probably elapse before the domestic manufacture of parts, accessories, and garage equipment attains any considerable development.

### IRAQ

#### Parts Demand Declining; Accessories Requirements Limited; Use of Garage Equipment Shows Signs of Improvement

Vice Consul Robert Y. Brown, Baghdad, Iraq

Motor-vehicle registrations as of January 1, 1931: 2,829 passenger cars, 99 busses, 1,167 trucks, and 110 motor cycles.

#### REPLACEMENT PARTS

There are no replacement parts manufactured in Iraq, and the entire demand is met by imports, which reached their peak in 1928 and 1929, after a steady increase over a period of 10 years. This increase was proportional to the number of vehicles in operation. Rough roads, drivers unfamiliar with the proper care and operation of motor vehicles, and the absence of a sufficient number of skilled mechanics were contributing factors in creating a good market for replacement parts.

During 1930 the demand decreased about 20 per cent, due in part to a reduction in the operation of motor-transportation services.

The decline in prices and demand in the world markets for wheat, wool, hides and skins, dates, and similar products, which compose Iraq's exports, has caused a condition of serious financial stringency to arise, and a reduction in imports in general has resulted. In an effort to effect economy, many old cars and trucks, which were kept in operation when business was good, are now being scrapped to provide replacement parts.

While there is some demand for almost all parts, the demand for bearings, bushings, spark plugs, valves, pistons, piston rings, and pins seems to predominate, the one item most in demand being automobile springs. This is caused by the tendency of local drivers to overload their vehicles.

Automobile distributors and dealers are the main channels of distribution for spare parts for the makes of cars they handle. In fact, the ability of a car dealer to provide spare parts often affects his car sales to a considerable extent. On the other hand, the majority of



cars and trucks in Iraq are of two low-priced American makes, and, while genuine replacement parts for these cars are imported and distributed, there is a large sale of replacement parts supplied by independent manufacturers and sold by small firms. Local car operators generally prefer the "genuine" spare parts, but the price is often the deciding factor.

A number of Iraq merchants dealing in automotive and allied lines do business also in Persia. For this reason a portion of the replacement parts and accessories imported into Iraq are subsequently re-exported to Persia. However, since the latter part of 1929 the Persian Government has maintained a number of rather drastic laws controlling the purchase of foreign exchange, restricting or prohibiting the importation of certain articles, etc. As a result, the re-exportation of replacement parts and accessories has declined noticeably.

Baghdad is the main center of distribution for Iraq, while Basrah, the only port of the country, is the secondary point of distribution. Many Baghdad firms have branches in several towns, and others have clients for whom they import on a commission basis or to whom they sell at wholesale prices.

Usual terms granted to importers of replacement parts are 25 per cent cash with order and the balance against documents at a local bank, while at times shipment is made without the advance-deposit requirement. Credit is rarely ever granted, if at all. The advance deposit is considered to be particularly desirable during the present period of depression.

The demand for small parts during 1931 is expected to be under the 1930 figure. Nevertheless, this market bids well to make gradual increases for some years to come after the present crisis has passed.

Advertising is not very effective in connection with this particular trade in Iraq and is not considered advisable. The importers connected with the trade and the price of the article itself are the factors of most importance.

#### ACCESSORIES

There has never been a great demand for accessories in this market, and it is not believed that the trade will improve to any appreciable extent in the near future. The retail prices of automobiles are unusually high, owing to import duties and freight charges. The majority of units are sold on time-payment terms, and the purchasers are not prone to burden themselves further by expenditures for accessories. Items included as original equipment seem to be sufficient to satisfy local requirements.

Practically the only demand that exists is for such items as bulb horns, hand jacks, tire pumps, and rear-view mirrors, with a limited demand for tire gauges. It will be noted that these are mostly articles that are furnished as original equipment but are subject to theft, loss, and breakage. The demand for bulb horns comes mostly from taxi drivers, who like to be provided with a horn of this type in addition to the electric horns with which American cars are equipped.

There is no demand for novelties, car heaters, radiator shields, taximeters, lubricating systems, etc. License plates represent the only accessory manufactured locally. They are of very crude workmanship and are not changed yearly as in the United States.

A majority of the local firms dealing in other automotive lines also handle American accessories. Although the total trade is small, the American participation is not as large as it is in the replacement-parts trade. Mirrors, bulb horns, jacks, and pumps are purchased from Germany and England.

Terms and methods of distribution are the same as for replacement parts. Accessories are stocked by automobile and parts dealers, who are usually direct importers. Service stations do not deal in accessories. Exclusive agencies are not usually granted, and the independent merchants often stock competitive lines.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Iraq has not as yet developed into a market for this type of equipment. Two or three distributors for popular makes of cars have fitted out their service departments with fairly up-to-date equipment, but there is not a single independent garage, catering to all makes of cars, that is supplied with adequate and modern equipment for servicing and repair work on automobiles.

There is no demand as yet for brake-testing machines, wheel-alignment equipment, high-pressure chassis-lubricating equipment, car washers, etc. Only a very few gasoline pumps are in use, and they were obtained in England by an English oil company, which is the sole distributor of gasoline in this country. These pumps are located in two or three towns. In the districts gasoline is sold mostly in tins.

One stationary air compressor and two portable ones, of American manufacture, have been installed by the distributor for an American tire. Several small portable types are also in use.

One shop has been equipped with electric vulcanizing machinery, but the venture has not proven profitable. Most tire repairing is done by individual drivers and hand tools are used.

Most of the mechanical equipment in use is of American manufacture, while a portion of the smaller hand tools comes from other countries. The larger items are usually ordered direct from the manufacturer and local agents are not as a rule maintained. Stocks, with the exception of garage tools, are not carried by any local firms.

A few capable mechanics are in the service of automobile distributors maintaining garages, while several have established themselves independently.

The present market for garage and service-station equipment, especially for the larger mechanical items, is limited. The demand will undoubtedly increase when the number of vehicles in operation becomes greater, but a marked change is not looked for within the next two or three years.

## JAPAN

**Good Demand for Replacement Parts; Accessories Fair; Service Appliances Increasing—American Products Predominate, with Increasing Competition from Domestic Manufacturers**

Trade Commissioner Paul F. Steintorf, Tokyo, Japan

Motor-vehicle registrations of January 1, 1931: 56,087 passenger cars, 8,937 busses, 30,695 trucks, and 24,332 motor cycles.

There are now more than 95,000 motor vehicles operating in Japan, as compared with approximately 25,000 units five years ago. It is apparent that this means a greatly increased market for replacement parts, accessories, and service appliances.

The outstanding characteristic of the Japanese market is the fact that motor vehicles are used almost exclusively for commercial purposes. In fact, it is estimated that there are only about 5,000 private automobiles in all Japan, which is a little more than 5 per cent of the total number of vehicles in operation and about 9 per cent of the passenger cars. It is apparent therefore that there is an extremely limited market for items which are designed to appeal primarily to the private owner or owner driver.

## REPLACEMENT PARTS

Replacement parts most in demand are pistons, piston pins, gears, pinions, valves, drive shafts, starting and lighting generators, spark plugs, and ball and roller bearings.

The United States secures nearly all the business in replacement parts, owing to the predominance of American motor vehicles in this market. The registration figures as of January 1, 1931, show that 95 per cent of the passenger cars, 95 per cent of the busses, and 96 per cent of the trucks are of American manufacture.

European competition is negligible, owing to the predominance of American vehicles. Domestic competition, however, is increasing very rapidly since the growth of the business has made local manufacture attractive. Furthermore, the domestic industry is protected by the import tariff, which averages about 35 per cent ad valorem. In consequence, domestic production has become an important factor in a number of replacement items. For example, Japanese makers now practically control the business in automobile springs, owing to the comparatively high transportation and duty costs. Furthermore, the local producers will sell on open account or the semiconsignment basis. In addition, the distributor does not have to carry heavy stocks, as the manufacturer can make immediate delivery in small lots.

Domestic competition in brake lining is extremely severe. In the case of woven lining the domestic prices are about 30 per cent under those of American products, and in consequence they have secured most of the business.

About 50 per cent of the demand for fan belts is now supplied by Japanese manufacturers. It seems probable that American participation in this trade will decline further. There is a limited production in molded lining in Japan, and American firms continue to secure most of this business.

Upholstery material is now produced locally in large quantities, particularly artificial leather for top and seat covers. Domestic pile fabrics, such as plush and velour, are of somewhat inferior quality, so that American manufacturers still secure considerable business in these lines. However, the Japanese textile industry is so large and generally so efficient that it seems probable it will eventually obtain most of this business.

Such items as radiator caps, rims, and rim parts can be readily manufactured in Japan, and there seems no reason why most of this demand will not be supplied locally.

The United States secures most of the business in spark plugs, but one domestic manufacturer is producing in fairly large quantities, and it seems probable that other companies will enter this field.

American manufacturers sell in this market on the basis of letter of credit, either on a D/P basis or with payment in from 30 to 60 days. In the case of the larger wholesale distributors, payment in 60 days has become customary.

The large wholesale distributors sell to retailers on a purely Japanese basis, which might be described as a combination of open account and consignment selling. The goods are delivered to the retailer, and on the 20th of each month the wholesaler checks the stock on hand, and the retailer is expected to pay for all goods sold on the 30th of the same month. Very often retailers take delivery on the 21st, and therefore have a period of about 40 days in which to pay for goods which may have been sold and are not required to pay for any stock which they may have remaining on their shelves until it is actually sold.

Tokyo and Osaka are by far the most important distributing centers, nearly one-third of the motor vehicles of the country being in these two cities. Yokohama may be considered a part of the Tokyo sales district, and in the same way Kobe is entirely subsidiary to Osaka. The only other cities of any importance are Nagoya and Kyoto.

Two large American companies have local assembly plants and have built up very extensive dealer organizations. These dealers are required to stock replacement parts supplied by the car manufacturer. Other American manufacturers are also very actively represented in Japan, and their dealers must also carry adequate stocks of replacement parts, which are, of course, supplied by the car manufacturer. It is obvious that under such circumstances it is somewhat difficult for the independent manufacturer of replacement parts to secure much business.

It is a policy of the Japanese Government to encourage domestic manufacturers in every way possible. There is a good deal of agitation for the establishment of the domestic automotive industry, and it is also a military policy to make Japan independent of foreign countries with respect to motor transportation.

Advertising methods are similar to those in America. Newspaper advertising is by far the most effective. Advertising in trade publications is fairly productive, but most of these publications have an extremely limited circulation. Posters, window signs, pamphlets, and other usual advertising methods are used and may be considered as effective here as anywhere else.

## ACCESSORIES

Although the rapid growth and the increased registration of motor vehicles has naturally resulted in a larger market for accessories, it is well to keep in mind the limited number of motor vehicles which can be classed as private cars. Furthermore, about 90 per cent of the 56,000 passenger vehicles engaged in some form of taxi or hire service operate on a maximum tariff of 1 yen for each trip up to a maximum of 3 miles. In view of the high first cost, high taxes, and high operating charges, this is obviously not very profitable. As a natural consequence, very few operators are able or willing to purchase anything more than the bare necessities in the

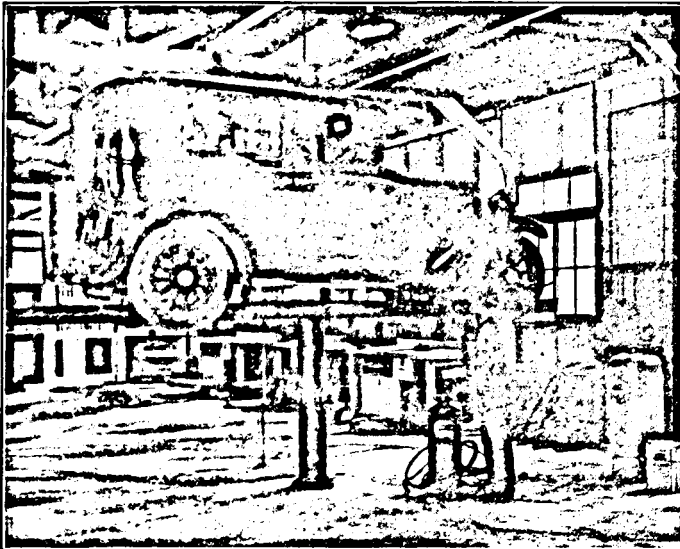


Figure 7.—Modern American service appliances in an Osaka (Japan) service station

way of accessories. Furthermore, when compelled to buy accessories they insist on the cheapest.

Practically all accessories are from the United States except small imports principally from Great Britain, France, and Germany.

The growth of this market has naturally stimulated domestic manufacture. This has been particularly true of the simpler products on which it is possible to utilize hand labor. The bulk of the present production is by extremely small manufacturers, but the following items are now being made in considerable quantities and in some cases are supplying practically all the demand: Bulb horns, bumpers, kick plates, rear-view mirrors, radiator ornaments, tire pumps, tire covers, wind-shield wings, and hand wind-shield wipers.

Bumpers are manufactured locally for sale at very low prices. In consequence the domestic makers secure practically all the business. Car heaters are not used owing to the mild winters in Japan. Horns

are imported from the United States; there is some German competition and domestic manufacturers are gradually entering the market. Heat indicators do not sell well as an accessory, inasmuch as they are standard equipment on most American cars, but there is a limited amount of replacement business. Luggage carriers are seldom used, and the limited demand can be met by domestic manufacturers. Hand-operated jacks of American manufacture are stocked by most dealers, but domestic producers will eventually secure most of this business. Radiator ornaments sell well, but any American design is immediately copied, and in consequence the market is not very attractive. Rear-view mirrors are imported from the United States in limited quantities, but it seems likely that the entire demand will eventually be supplied locally. Radiator shutters do not sell well owing to the low purchasing power of most car operators.

Padlocks have a fairly good demand, as do shock absorbers. Step plates are manufactured locally and American participation is sure to decline. Seat covers are popular, but domestic producers monopolize the business. Signaling devices find a very limited market, as do spotlights, owing to their comparatively higher price and limited utility for city driving. Tire covers are manufactured locally and imports are negligible. Tire chains are rarely used, but increased sales might follow an advertising campaign which would stress their safety features. Top and upholstery materials are imported from the United States in large quantities; however, domestic producers are cutting into the market with low-priced materials.

Wind-shield cleaners of the automatic type sell in fair quantities, but most motor-car operators are entirely satisfied with the hand type, usually furnished as standard equipment on low-priced cars.

Price is the primary consideration in all sales of accessories in this market. Appearance is next in importance, with quality a minor consideration. It appears to be practically impossible to sell the idea of the ultimate economy of quality goods to the Japanese consumer. Even when he is apparently convinced, he will purchase the cheaper goods, since he feels that he can not afford the initial investment for better products. It is essential, therefore, for American manufacturers to keep their distribution costs and, consequently, their prices as low as possible. This can often be done by eliminating middlemen, particularly in those cases where the line is represented by both an American export company and an import firm in Japan.

There are three primary methods of retail distribution now being conducted in this market: First, by large wholesale accessory merchants who carry large stocks and generally purchase direct from foreign manufacturers; second, by the automotive dealers, most of whom carry fairly complete lines. These dealers are of two sorts, namely, the large distributors with branches in various cities and the smaller dealers selling only in one city or district. The large distributors often act as direct importers and in many cases represent foreign accessory manufacturers and act both as retail and wholesale distributors. The third method is by the small retail accessory shops, of which there are at least 200 in Tokyo alone and probably several thousand in Japan.

It is difficult to secure an agent or representative who will completely cover the market. It is necessary, therefore, for the Ameri-

can manufacturer to select a representative who can give him the best possible distribution for his particular product. To assist in this decision there is given below an outline of the various kinds of representatives, with some general notes on the advantages and disadvantages of each.

The larger general importing companies have sales facilities to completely cover the market. However, few of them are willing to devote much time and effort to minor products such as automotive accessories, and practically none is willing to carry stocks. There are a number of smaller importing companies which make a specialty of such lines. These make suitable agents, but most of them confine their sales efforts to a single district, and care must be exercised in granting them exclusive sales rights for the Empire. Incidentally, firms of this sort invariably insist on a sole agency and make rather extravagant statements in regard to their sales facilities.

The appointment of a manufacturer's agent or commission merchant as sales representative is one of the best ways of reaching the smaller retail distributors. Furthermore, such representatives are in a position to canvass the entire market. However, this distribution method prevents the carrying of stocks. Furthermore, the large retail accessory merchants and automobile dealers are often unwilling to purchase through an agent, since they feel that they can buy more cheaply direct from the manufacturers. Often this added commission is a serious disadvantage for a highly competitive product. An added danger is that the manufacturers' agents are generally inclined to take on too many lines, with the natural consequence that they are unable to devote the proper time and effort to any one product.

There are a number of large accessory firms, which, in addition to their primary function of retail distributors, act as importers and wholesalers. The selection of one of these firms as an agent has advantages, the most important of which is that these firms carry stocks and can make immediate deliveries. This often means that they secure considerable business which would otherwise go to their competitors. An added advantage is that they have large retail stores which carry complete stocks, attractively displayed. The only important disadvantage is that generally these firms have limited facilities for selling outside their locality. This might be obviated by appointing regional distributors. However, it will generally be necessary to appoint only two distributors, one in Tokyo and the other in Osaka. The Tokyo distributor should be given all territory east of a line west of Nagoya, and the Osaka distributor given the remainder of Japan proper. Each should be required to appoint subagents in the smaller cities in his territory. In this case Taiwan and Chosen should be treated as separate sales territories, with an independent distributor in each.

Whatever kind of agent is selected it will be found advisable to sell only on the basis of confirmed, irrevocable letter of credit. It is generally wise to sell on a D/P basis, although in sales to the larger companies deferred payments of 30 to 60 days may be satisfactory. Most of the difficulties of American firms in this market have been due to the unwise extension of credit to small companies. There has also been a considerable amount of consignment business which has generally resulted in losses to the American manufacturer.

American manufacturers are cautioned to be very careful in disseminating their agency terms and discounts, since this practice has often seriously hampered business after they had succeeded in securing an agent. It is also advisable to make quotations c. i. f. Japanese ports whenever possible, since this greatly facilitates business, particularly with the smaller firms which have limited facilities for estimating American freight and handling charges.

#### GARAGE AND SERVICE-STATION EQUIPMENT

All the leading American manufacturers are attempting to provide adequate service facilities in this country. On the whole, the service is good in the larger cities but inferior in the small towns

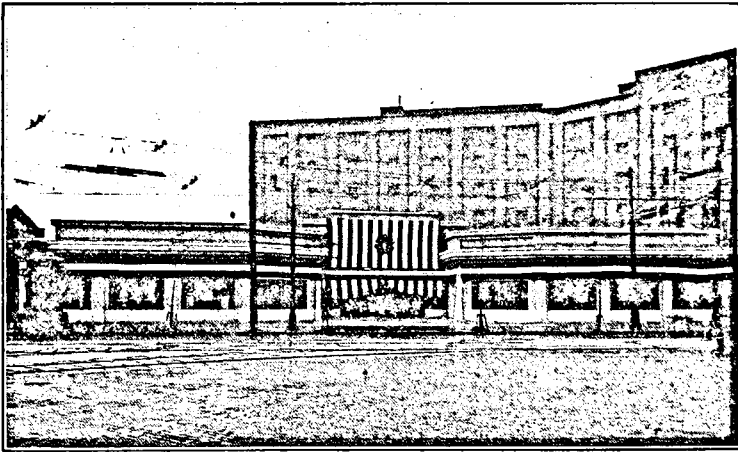


Figure 8.—Japan's first modern service station, opened at Osaka by an American company specializing in the export of automotive equipment

and outlying districts. Most of the mechanics are far from being properly trained, although the situation is gradually improving.

Precision equipment and special tools are the types of garage and shop equipment most needed at present. Labor-saving devices are not readily salable, owing to very cheap labor in Japan.

The equipment used is generally of American or Japanese manufacture. There is very considerable production of such items as cranes, gasoline pumps, mechanical jacks, oil and grease guns, paint-spraying equipment, battery chargers, and welding outfits. There is every reason to believe that domestic production of these items will increase. It is certain that on the larger and less-complicated items domestic manufacturers will eventually monopolize the market.

There is very little foreign competition with the exception of German hand tools, which are generally of good quality and considerably cheaper than American but with inferior design. American products are expected to maintain their position with respect to these items.



The principal restriction on the use of mechanical equipment is the small size and limited capital of most of the garages and repair shops and the availability of an adequate supply of fairly efficient labor at very low wages. This condition will continue to prevent extensive sales of the more expensive equipment and will limit the market for labor-saving appliances.

Electric current is universally available to garages on an economical basis for the operation of service appliances.

Tires are almost invariably changed by hand; there is very little demand for mechanical equipment for this purpose. In all of the larger cities there are a number of shops whose sole business is tire repairing, including retreading and similar work.

Most of the garages are now being operated by automobile dealers. This is a natural result of the extensive development of this market by the large American manufacturers, all of whom insist that their dealers install adequate service facilities.

Most of the mechanics are far from properly trained, although this situation is gradually improving.

Present distribution methods are fairly satisfactory, but there appears to be too many middlemen, resulting in excessive distribution costs. There are a great number of small retail establishments but very few wholesale distributors or importing companies. Practically all of these latter companies already have a complete line of American products, which makes the placing of agencies for new American lines extremely difficult. The same remark applies to manufacturers' agents.

Sales in this market should generally be made on the basis of letter of credit with terms of cash against documents for smaller companies and payment in 30 to 60 days for the larger and more reliable concerns.

It is certain that increased use of motor vehicles will eventually create a market for better and more modern service and garage equipment. However, this market will be limited because of cheap labor and the fact that time is comparatively unimportant.

### NETHERLAND EAST INDIES

#### **Demand for Replacement Parts Unfavorable, Owing to Economic Conditions and Hold-Over Stocks—Accessories Declining—Little Progress in Automobile Service Facilities**

Trade Commissioner Richard P. Hendren, Batavia

Motor-vehicle registrations as of January 1, 1931: 63,735 passenger cars, 6,538 busses, 14,510 trucks, and 14,216 motor cycles.

### REPLACEMENT PARTS

Ever since 1913 the Netherland East Indies have been a good market for replacement parts and accessories. Imports increased from 349,000 florins in that year to 4,199,010 florins in 1929. (One florin at par equals about \$0.402 in United States currency.)

Imports for 1930 suffered a decline in comparison with the previous year, due primarily to the economic conditions which became increasingly bad as the year progressed, and also due to the large

carry-over of stocks from the preceding year. Further declines were registered during the first part of 1931 and it is thought that business for the entire year will be considerably below the level of 1930.

There is a good demand for bolts, brake lining, bushings, spark plugs, pistons, gears, drive shafts, rims and rim parts; a fair demand for plain ball and roller bearings, clutch facing, springs, valves, radiator caps, piston rings, pinions, and starting and lighting generators. The demand for driving and timing chains, fan belts, piston pins, body hardware and upholstery materials, as well as shims and shim stock, is small, and there is practically no market for stampings, forgings, steering wheels, and auto frames.



Figure 9.—Showroom of a large trader in automotive equipment at Surabaya, Java

American manufacturers obtain about 58 per cent of the business in replacement parts, with Canada, England, Germany, Netherlands, Sweden, France, and Italy accounting for the great share of the remainder.

The balance of this trade is controlled by four Chinese firms importing direct from the United States. There are three manufacturers' agents who likewise obtain a good volume. Both the Chinese importers and the manufacturers' agents sell to the small accessory dealers throughout the territory. Garages operated by automobile dealers carry only small stocks and do not obtain the volume of business which they should. The only significant distribution trend is that the Chinese firms seem to be obtaining a larger volume of business.

The usual terms offered by both American and foreign manufacturers are 60 to 90 day documents against payment or documents against acceptance.

The leading distribution centers are Batavia, Semarang, Surabaya, Medan, and Palembang. An American manufacturer with connections in Batavia, Surabaya, and Medan will have good representation in this territory. Batavia covers the territories of Bantam, Preanger, Cheribon, Pekalongan, Banjoemas, Kedoe, South Sumatra, and Palembang. Surabaya covers Djocja, Solo, Madioen, Kediri, Pasoeroean, Besoeki, Celebes, Bali and Lombok, Borneo, and Madura, while Medan covers North Sumatra.

Price is increasingly of importance, and quality products are encountering more sales resistance constantly. This is due almost entirely to the current economic depression, and it is believed that just as soon as conditions improve quality lines will sell well again. Foreign competitors have been successful in obtaining a small portion of this business by underselling American manufacturers.

The only special requirements that American manufacturers should bear in mind when shipping to this territory are that electrical products should be wired and insulated properly in anticipation of the humid climate. Batteries should not be charged with acid prior to shipment, because, even though the acid is dumped out, corrosion usually takes place en route. If manufacturers of batteries insist upon charging before shipping they should be dry charged.

There are no really effective advertising methods being used at the present time, most firms preferring to use advertising appropriation in the form of special discounts. Some firms have used appropriations to defray the cost of distributing price lists, while others have inserted small advertisements in the daily newspapers.

#### ACCESSORIES

Ninety per cent of the demand for accessories in this market comes from natives operating taxicabs. The demand is decreasing rapidly, owing to the fact that almost all necessary or desirable accessories are being included as part of the original equipment.

There is a good demand for bulb and electric horns, but practically all of the imports come from England and Germany. A fairly steady demand exists for hand and mechanical jacks; lamp lenses are in good demand, but imports from Japan are increasing, owing to cheaper prices. Tire pumps and seat covers are in fair demand. There are small sales recorded of bumpers, heat indicators, rear-view mirrors, shock absorbers, speedometers, tire gauges, wind-shield visors, and wind-shield cleaners. Small quantities of nonskid chains are sold in south Sumatra, because of muddy roads; otherwise the demand is practically nil. Glare eliminators have a small demand, with most imports coming from Germany and Japan because of lower prices. Lights—head, rear, stop, and parking—are sold in small quantities, with imports coming mainly from Japan. There is practically no demand for body hoists, hood, radiator, and tire covers, license plates, theft-proof locks, lubricating systems, radiator shutters and shields, taximeters, windshield wings, and car heaters. There is little demand for novelties, most imports coming from Italy, France, and Germany. Luggage carriers and trunk racks are not in demand, as they are all made locally.

The majority of the imported accessories are sold through exclusive distributors purchasing for their own account. Some American firms are being successfully represented by manufacturers' agents, but the trend seems to be toward exclusive distributors.

Small stocks are carried, but the tendency at present is to work on the lowest stocks possible, many lines being worked on an indent basis. This condition will no doubt change, however. Owing to the fact that there is a shortage of agents in this field, companies handle several competitive lines, although effort is made to have as many different price levels and qualities as possible. Usually the practice is to take one cheap, one middle, and one high-class product of the same type.

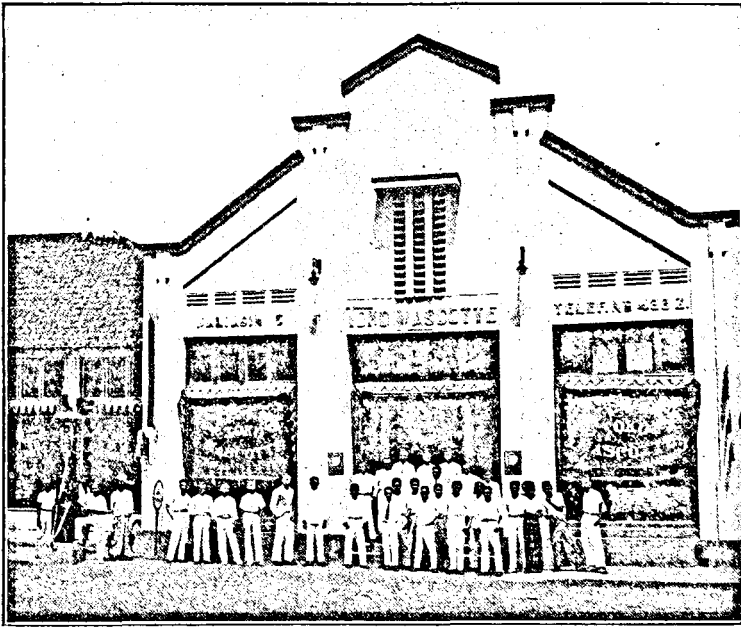


Figure 10.—This Javanese organization is an important distributor of American automotive equipment in the East Indies

The usual terms offered by both American and foreign manufacturers are 60 to 90 days documents against payment or documents against acceptance.

It is estimated that American manufacturers obtain about 70 per cent of the accessory business. Such products as bumpers, glare eliminators, bulb and electric horns, jacks, mirrors, tire pumps, windshield cleaners, windshield wings, radiator caps, and tools such as wrenches and sockets, have been imported in small quantities from Germany, France, Italy, England, and Japan. Most of these articles are practically equal to American products in quality, and the prices range from 10 to 30 per cent cheaper.

Accessories are usually stocked by accessory dealers, although some motor-car dealers and garages carry small stocks.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There has been practically no progress made in providing adequate automotive-service facilities in this territory. There are only two or three garages completely equipped.

An Asiatic mechanic is at best none too good, judged by American standards, and as a rule each garage usually has at least one trained mechanic.

Practically every kind of garage and shop equipment produced is needed here, such as special tools, high-pressure greasing, cylinder-boring machines, reamers, and brake-lining machines.

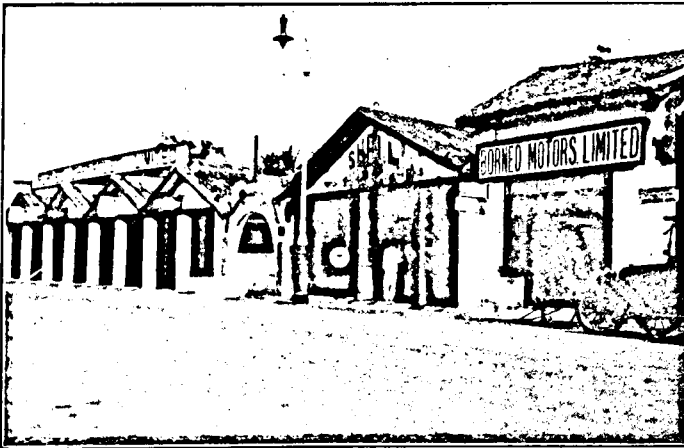


Figure 11.—A service station using American equipment in far-off Borneo

There are several air compressors in use, but most of them have been imported by the oil companies for their own service stations. There are approximately nine auto lifts in the territory, most of which have been made locally; a fair demand exists for battery chargers, most of which are coming from Germany. There are no brake-testing machines in use, but it is believed that a small number could be sold.

Owing to the availability of cheap labor, it is doubtful whether car washers can be sold in this territory. Three or four cylinder-boring machines are in this territory at present, and the market could stand a small number more. This also applies, as far as additional sales, to cranes. Practically every size of garage tool is needed; the principal competitor in this line is Germany, which is selling a small quantity of wrenches, jacks, and vises. There is a small demand for hydraulic and mechanical jacks; also for high-pressure chassis-lubricating systems, but a much larger demand could be created for the latter items by intensive selling.

Oil and grease guns are in fair demand, with the chief competition being from Germany. A fair demand exists for oil-dispensing pumps; portable drills, with Germany as chief competitor; valve grinders; welding outfits, again the chief competitor being Germany; a small demand for paint-spraying equipment, but sales could be increased by proper advertising and sales methods; a limited demand for polishing machines; a small demand for reamers; good sale for wrenches, with the chief competitor being Germany. There is no market for wheel-alignment equipment. Tire-repairing machines, including tire changers and vulcanizers, have small sale, but this could be enlarged considerably by intensive selling. There are three or four units of towing and salvaging equipment now in use, and these were made locally. It is doubtful that any appreciable volume of business could be developed for these articles. The volume of American equipment is small.

Ramps and grease racks are made locally, as are gasoline tanks and air compressors. It is doubtful whether there will be any further expansion in domestic manufacture other than by the one company which is now making these articles for its own consumption.

Some service-station equipment is being imported from Europe by a petroleum company for its own consumption, including such items as tire gauges, air compressors, gasoline-pump stands, lubricating devices, and gasoline-pump globes.

The demand is at present very small, owing to the fact that most mechanics are unfamiliar with many modern appliances and therefore make no request of their employers to equip the garages with them. Electric current, even at the industrial rate of 8 cents per kilowatt-hour granted to garages, is comparatively high.

Tires are changed mostly by hand tools, but there is a likely market for tire-repairing machines. Tire-repair shops are increasing in number, and there are now about 65 in this territory.

Most garages are operated by automobile dealers, although there has been a slow development toward the establishment of independent garages to provide high-class servicing, which usually can not be obtained from dealers' garages.

American manufacturers, in order to obtain a wide distribution in this territory, should endeavor to make a sales connection with one of the large importing houses, which purchases for its own account and redistributes throughout the territory. Although manufacturers' agents still obtain a good volume of this business, the trend seems to point toward the import houses making direct purchases. This is particularly true of the Chinese firms, which travel this territory thoroughly and which have shown a willingness to turn stocks at closer profits than their European competitors. It is recommended, however, that American manufacturers or a group of manufacturers of good selling lines send a factory representative to this territory, because the volume of business available would make the trip worth while.

The present distribution methods seem to be satisfactory, although automobile distributors are making strenuous efforts to have their dealers carry larger accessories stocks. It is doubtful that a general

movement in this direction will be successful, owing to the Chinese competition.

Credit should be extended to all reputable importers in this territory, because they in turn grant their dealers from 60 to 180 days' credit. The usual terms in practice now are 60 to 90 days documents against payment or documents against acceptance, depending on the company.

There is undoubtedly a rapidly growing need in this territory for better and more modern service and garage equipment. A manufacturer of a complete line of such goods, providing its prices were competitive, could undoubtedly obtain a good volume of business by sending a factory representative to conduct an intensive selling campaign for 6 to 12 months.

### PALESTINE

**Demand Promising for Replacement Parts and Service Appliances—Accessory Demand Increasing—American Products Supply Four-fifths of the Market Demand**

Vice Consul H. Gordon Minnigerode, Jerusalem

Motor-vehicle registrations as of January 1, 1931: 1,625 passenger cars, 771 busses, 524 trucks, and 328 motor cycles.

It was not until after the World War, and under the occupation of the country by the British, that automobiles were introduced to this market. The immigration of large numbers of Europeans and other foreigners in recent years, however, and their desire for the commodities to which they have been accustomed in their own countries have led to a gradual change in the outlook for Palestine and the development of markets for many western products that had been unheard of only a few years before.

The automobile made its first appearance in Palestine in 1920. In the decade that followed the demand for modern motor vehicles of all kinds, with the various replacement parts and accessories and garage equipment that inevitably follow them, has grown, slowly at first, but with increasing steadiness. The demand for parts and accessories has kept pace with that for the cars themselves and may now be considered as offering a very favorable potential market for manufacturers in a position to furnish articles of the character desired.

The neighboring principality of Transjordanania may be considered as almost an integral part of Palestine, so far as the trade in automobiles, parts, and accessories is concerned. Such cars as are found in that country are to-day almost invariably imported from Palestine, the transactions being managed for the most part by the automobile dealers of Jerusalem, Jaffa, and Haifa.

The natural features of the country and the severe wear to which most cars are subjected are on the whole similar to Palestine, so that the following observations upon the Palestine market may be taken to apply to Transjordanania as well.

### REPLACEMENT PARTS

The replacement parts which appear to be most in demand at present are: Plain bearings, brake lining, bushings, clutch facing, driving and timing chains, fenders, springs, valves, pistons, piston pins and rings, and rims and rim parts. There is very little competition from foreign firms, since American concerns enjoy between 85 and 90 per cent of this business. Such foreign products as are found are of English, French, German, and Italian makes and are as yet too limited to offer serious competition.

There is a certain amount of domestic competition in the mending of springs, rivets, and other simple parts which are effected by village blacksmiths in some of the more remote districts.

The favorite method of distribution followed by American firms is to obtain representation by responsible agents in Jerusalem and Jaffa, the two most important distributing centers in Palestine. These agents then manage the distribution, either direct to the consumer or through numerous subagents scattered in the smaller centers. In this way automobile parts are finding their way to prospective purchasers, even in the most remote parts of the country.

American firms usually require terms of irrevocable credit and payment for goods on consignment. Local merchants object strongly to the latter, however, and have sometimes succeeded in obtaining from 60 to 90 days' credit.

The leading distribution centers for automobile parts and accessories are Jaffa, Haifa, and Jerusalem, in which the western influence is strongest and modern products appear to be most in demand.

Most of the German and French companies in the market are seeking to compete with the American products by offering liberal terms to local dealers. The terms are from two to three months, but have as yet had little effect against the superior quality of the American goods.

The most effective advertising would be done through local newspapers and magazines published in English, Hebrew, and Arabic, the three official languages of Palestine. Window cards are also occasionally employed, but the volume of advertising is naturally not to be compared with that of the average community of similar size in the United States.

### ACCESSORIES

The accessories which are most in demand at present are: Bumpers, shock absorbers, bulb horns, mechanical and hand jacks, lenses, lights, lubricating systems, tire pumps, tire gauges, and hand and electric windshield cleaners.

About 80 per cent of the trade is of American origin, the rest being distributed among the English, French, German, and Italian competitors. There is no domestic manufacture, and such foreign products as are imported are unable to offer serious competition to the American firms.

In most cases accessories are marketed by local dealers, who frequently represent both foreign and American concerns. These dealers distribute the accessories received either through subagents



or direct to the consumer. Stocks of accessories are generally carried by the leading dealers in Jaffa, Haifa, and Jerusalem, many of whom handle competitive makes.

The same terms are offered by the American firms in accessories as in parts.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There has as yet been little progress in providing adequate service facilities. The garages are very primitive.

Mechanics are reasonably efficient and in most cases are possessed of a considerable amount of practical experience in dealing with cars. There is a great lack of theoretical knowledge and specialization, but mechanics on the whole are as capable in Palestine as in most other communities of a similar character.

The items for which there is greatest demand include garage tools of all kinds, jacks, reamers, valve grinders, oil and grease guns, battery chargers, wrenches, and paint-spraying equipment. It is conservatively estimated that at least 80 per cent of the automobile equipment in the various garages is of American make. There is no local manufacture of any garage or service-station items, nor is there any possibility of such production in the future.

The use of mechanical equipment is unfortunately hindered by cheap manual labor, by reluctance on the part of garage owners to invest in expensive equipment, and to a certain extent by the high price of electricity. In spite of these obstacles, however, there are still a number of garages in which electric machinery is employed and operated by alternating current of 220 volts.

Chauffeurs and taxi drivers usually repair their own tires unless vulcanizing is required. Individual owners usually send their tires to repair shops or garages for repair.

The best selling method has been found to be through manufacturers' agents. This system has been in use throughout Palestine for some years and is considered highly satisfactory. The most logical distribution points are Jaffa, Haifa, and Jerusalem.

Most of the garages in Palestine are operated separately by private owners rather than by automobile agents. The prospective market in Palestine for parts, accessories, and garage equipment may, on the whole, be regarded as a promising one. With the gradual improvement of economic and trade conditions under the British mandate, the demand for western commodities among the better class of natives is correspondingly increasing. The large and growing foreign element also naturally demands modern conveniences. As a result of these tendencies motor-vehicle registrations have increased despite the widespread economic depression.

It is believed that despite the relatively low purchasing power of the majority of the population in the past, the steady economic improvement taking place under British administration should furnish a promising market for American accessories, replacement parts, and garage equipment in the future.

## PERSIA

**Market for Parts and Accessories Practically Closed by Restrictive Laws—  
Improvement in Garage and Service-Station Equipment Slow and Uncertain**

Vice Consul Henry S. Villard, Teheran

Motor-vehicle registrations as of January 1, 1931: 4,500 passenger cars, 400 busses, 4,900 trucks, and 450 motor cycles.

## REPLACEMENT PARTS

Previous to the spring of 1930 the market for replacement parts in Persia was good, prospects for improvement were favorable, and American participation amounted to about 75 per cent. Almost all varieties of parts were in demand, although relatively more spark plugs, valves, piston rings, pistons, and drive shafts were required than any other item.

Distribution was generally by automobile dealers, although there were many small importers of various merchandise who more or less specialized in replacement parts. Teheran was the chief distribution center, with Isfahan, Bushire, Hamadan, Kermanshah, Resht, Tabriz, and Duzdab also of some importance.

Since American motor vehicles constituted about 80 per cent of those operating in Persia, there was little foreign competition. Terms offered to distributors and dealers were as a rule 25 per cent cash with order, balance against documents at a Persian port.

Beginning with the emergency law of February 25, 1930, however, the Persian Government instituted a complicated set of restrictions on the sale of foreign exchange, which seriously disrupted the market for replacement parts. Owing to the inability of importers to remit exchange in payment for their orders abroad, the supply of parts was drastically curtailed, and many second-hand vehicles were dismantled and the pieces sold as spare parts. New importations were dependent on the amount of exchange which the dealer was able to purchase, but the difficulties became so great that at the end of the summer of 1930 practically no further orders were being placed.

The restrictive measures culminated on February 25, 1931, with the passage of a law giving the Government a monopoly on the entire trade of the country. Certain articles, such as luxuries, were to be imported by the Government itself, while the right of importation of other goods was granted to persons who exported an exact equivalent of Persian commodities. Furthermore, an import quota was set for the principal items composing Persia's foreign purchases, beyond which no goods could be brought into the country.

The import quota for the first three months of the Persian year 1310 (March 22–June 21, 1931) permitted a total of 3,225,000 rials<sup>1</sup> for wagons, carriages, trucks, busses, motor cycles, bicycles, and "spare parts for vehicles and conveyances of every description." In other words, no separate classification is made for automobile replacement parts, but they are included in the quota for trucks and busses. It is stated that tires are also included in this quota.

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<sup>1</sup> See following paragraph.

The above allotment, it will be noted, is made in rials, the rial being the new unit of currency adopted by the law of March 18, 1930, which provided for abandonment of the silver standard by Persia in favor of the gold. Progress to date, however, in making the transition has been very slow, and the rial is still at present a theoretical coin, although it is hoped to place some of the coins in circulation during the current year. The value of the rial is held to be equivalent to  $4\frac{1}{2}$  krans, at which rate 3,225,000 rials would equal 14,514,500 krans, or, at the present official rate of exchange, \$782,875.

The market for replacement parts may, therefore, in the three months mentioned, be considered as that portion of \$782,875 which is not allotted to the importation of trucks, busses, motor cycles, bicycles, and other articles included in the above category. There is no way of telling how the quota will be divided, except that it will probably be filled in the order of application for permits.

It is understood, of course, that permits for the importation of goods under the quota are entirely contingent upon an undertaking to export an equivalent amount in Persian commodities. In the case of imports prior to June 23, 1931, the undertaking must have been fulfilled by August 23, 1931. After June 23 an import permit is granted only upon the presentation of a certificate showing that the goods have actually been exported.

It is impossible to foretell the quota for the three months after June 21, but many dealers believe that under the present onerous conditions of trade no imports whatever will be attempted.

#### ACCESSORIES

The same observations made in respect to replacement parts apply in the case of accessories. Accessories are generally stocked by car agencies or by importers of miscellaneous foreign ware, but the market for such products may be deemed to be even less at present than for parts, as only the most necessary articles are granted import permits. Great Britain is the leading competitor.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Progress in providing adequate service facilities for automobiles in Persia has been slow, but compared with a few years ago a decided improvement is noticeable. There is one American mechanic in Persia, residing in Teheran and employed by an English automobile importer; he is well trained and is familiar with most makes of cars. Other mechanics are not so well trained, though there are a few who have studied at American plants.

Modern service equipment is on the whole scarce, although efforts have been made by some enterprising garages to import a few articles of American manufacture. There is a growing number of garages in the country, for the most part operated by independent owners. Tires are changed with hand tools.

Inasmuch as garage equipment is not mentioned on the import quota, it is considered doubtful whether any market at all exists at

present. The rules and regulations of the trade monopoly law have not yet been fully worked out, of course, but in any case there seems little likelihood of permission being granted for the importation of any article not on the published list.

## PHILIPPINE ISLANDS

Assistant Trade Commissioner Clarence P. Harper, Manila

**A Steady Demand Exists for Replacement Parts—Novelty Lines and Accessories Meet with Excellent Sales, Although Others Do Not Find Any Great Demand—Market for Garage and Service-Station Equipment Steadily Improving—American Products Control the Market**

Motor-vehicle registrations as of January 1, 1931: 22,831 passenger cars, 2,800 busses, 11,418 trucks, 387 motor cycles.

The free-trade relations which exist between the Philippine Islands and the United States give American products an advantage here which foreign manufacturers have been unable to overcome. Consequently practically 100 per cent of all imports of parts, accessories, and garage equipment is brought in from the United States by local firms acting as agents and distributors.

There are two factors of outstanding importance which must be taken into consideration. The first is that this is wholly a hot-weather market, and, second, that the retail distribution of the bulk of parts and accessories in the provinces is in the hands of Chinese merchants.

While the details of retail distribution ordinarily should be left to the local importer, the manufacturer should be extremely careful to select one which has provincial connections, if maximum distribution is to be expected.

Automobile dealers in Manila, with branches in Cebu and Iloilo, are usually excellent outlets for these products, as they are generally called upon to service the cars they sell and must carry in stock a large supply of spare parts for the purpose. These concerns will sell wholesale or retail to any dealer in the islands, but their biggest outlets are probably through their own service departments and provincial agents.

Another method of distribution is through the spare parts and accessory dealers, of which there are several in the Philippines. These concerns handle chiefly the fast-moving parts and are able to obtain a much larger turnover annually than the car dealers. In order to be able to give first-class service to the automobiles sold, the car dealer must also stock for retail the slow-moving parts as well, which means that about 90 per cent of his capital is tied up in stocks having a very slow turnover. His overhead, consequently, is higher and he is unable in many cases to adjust prices to meet competition with those firms which specialize only in fast-moving items.

Most Manila importers of any importance, whether car dealers or spare parts and accessory dealers, arrange their provincial distribution either through especially appointed subagents or Chinese merchants who usually carry a wide range of general merchandise.

A third means of placing automobile parts and accessories is through manufacturers' agents who obtain exclusive distribution

rights to particular lines of "imitation" parts and solicit orders on an indent basis. Almost any Manila agent who handles stock will indent direct to the purchaser if desired, and many transactions are handled in this manner.

The terms to local companies of good standing are usually 60 to 90 days, documents against payment, but to most native or Chinese firms an irrevocable letter of credit is required. Terms on stock supplied from Manila are usually based on the merits of the individual firm.

The Philippine Islands are rapidly being covered with a network of motor-transport lines operated by companies and individuals of both large and limited means. Under stress of competition, however, smaller companies are being gradually absorbed by the larger ones, many of which have found it advantageous to purchase garage and shop equipment directly from the manufacturers in the United States. A few also hold their own agencies for certain lines.

The large oil companies in the Philippines have been active in erecting oil stations to which they furnish their own equipment obtained from the United States. These stations are invariably supplied with the most modern machinery and tools available.

#### REPLACEMENT PARTS

There has been a steady trade in parts and accessories during the 10-year period since 1921, and with the exception of the year 1929 when the total imports were unusually high, the yearly trade has ranged between 1,000,000 and 2,000,000 pesos.

Parts most in demand are ball and roller bearings, brake linings, clutch facings, fan belts, spark plugs, springs, valves, pistons, piston pins and rings, gears, pinions, drive shafts, rims, and rim parts. These may all be considered in the class of fast-moving parts, which are handled by all importers selling automobile parts and accessories.

There is no competition from foreign sources, and practically no items are made locally.

The leading distribution center of the Philippines is Manila, but Iloilo and Cebu can be considered as secondary centers. Manila firms usually have subagents in the two other cities and supply them stock from Manila or have it shipped directly from the American manufacturer on indent orders. It is not believed wise for an American manufacturer to grant an exclusive agency to firms whose activities cover only Iloilo and Cebu as their capital and organization will probably be insufficient to give maximum distribution to any product. Manila, on the island of Luzon, takes probably 65 to 70 per cent of all automotive products entering the Philippines, which makes it obvious that a Manila firm capable of island-wide distribution should by all means be first choice as an agent.

The leading distribution methods employed in this trade are through motor-car dealers, parts and accessory dealers, and manufacturers' representatives. All these firms, with the possible exception of the manufacturers' agents, have traveling salesmen in the Provinces who contact the Chinese merchants and provincial subagents.

The usual terms offered to distributors and dealers are 60 to 90 days documents against payment. Most native or Chinese firms are

required to furnish irrevocable letters of credit when they import directly from the manufacturer.

There are very few garages, strictly speaking, in the Philippines, as most repair work is performed by the dealers, who maintain large shops for the purpose. There appears to be a distinct preference among native firms for low-priced car parts, which, in most instances, are obtained from parts and accessory dealers at lower prices than the car importers are able to offer.

Very little advertising is carried on for replacement parts, although some firms maintain direct mail contact with provincial dealers, keeping them informed constantly of price changes and new offers. Direct personal contact is the most effective, however, and the larger firms endeavor to follow this method.

### ACCESSORIES

The demand for accessories in the Philippines is excellent for novelty lines. Filipinos are very fond of such items as novelty horns, lights, mirrors, and other accessories which may enhance the decorative appearance of their cars or produce unusually weird noises. This desire for car decorations is also frequently exemplified by the manner in which many cars are painted. Unless an accessory is of a type which would add in some way to the attractiveness of the car, or is capable of a new noise, it would be unlikely to find any appreciable demand in the islands.

Accessories most in demand are electric horns, hand and mechanical jacks, lenses for lamps, tire pumps, tire gauges, windshield cleaners, and novelties. There is a fair demand for such items as nonskid chains, lubricating systems, and mirrors.

There is no domestic or foreign competition in this market.

Accessories are marketed in the same manner as parts, namely, through exclusive agencies to commission agents or car dealers. There is evidence that the parts and accessory dealers probably find wider distribution than any other type here. Stocks are almost always carried, and one occasionally finds that competitive lines are handled by the same company. It is believed that the parts and accessory dealers and automobile dealers through whom the bulk of accessories are distributed, adequately cover the market at the present time.

The usual terms in this trade are the same as in accessories and spare parts, namely, 60 to 90 days. Accessory stocks are carried by car agencies and accessory dealers only.

### GARAGE AND SERVICE-STATION EQUIPMENT

Since Manila is the principal center of distribution in the Philippine Islands and all automobile agencies are located there, it is possible to obtain fair garage service in the city. However, in the provincial district and in Iloilo and Cebu the service is very poor, owing to the lack of trained mechanics and necessary facilities. Even in Manila one seldom finds a first-class mechanic. Untrained workmen are largely employed in shops without adequate supervision. However, there appears to be a slight tendency now to improve service in

view of the increasing competition among automobile dealers, since subsequent servicing can be made an excellent selling point in favor of any firm which can supply it.

Properly trained mechanics are difficult to secure, and there is seldom more than one or two in each of the service shops.

The garage and shop equipment most needed includes air compressors, auto lifts, battery chargers, garage tools, hydraulic and mechanical jacks, high-pressure chassis lubricating and grease-dispensing systems, oil and grease guns, paint-spraying equipment, valve grinders, and wrenches. There is a fair demand for such items as portable drills, reamers, cranes, and wheel-alignment equipment.

Practically 100 per cent of the equipment used is of American origin. There is very little local manufacture, but a few articles, such as grease racks, benches, motor and axle stands, and cranes, have been made by one or two local companies. It is improbable, however, that domestic manufacture in this type of equipment will ever assume any importance in the Philippines.

The only restriction on the use of mechanical equipment is the cheap labor available and inexperienced management. Considerable hand work is done in shops, particularly in the provincial districts, which in the United States and Europe would be performed by machinery.

In Manila, Cebu, and Iloilo, electric current is available for all uses 24 hours a day, but in most of the provinces current is supplied only during the night on a 12-hour basis. There is a tendency, however, to gradually give 24-hour service whenever the demand warrants it.

The present method of changing tires is by hand tools. Tire repairing is done by chauffeurs in provincial districts and small towns, and in Manila it is usually performed by the repair shops. The majority of the garages in the Philippines are operated by automobile dealers.

The principal distribution areas in the Philippines are Manila, which covers the Island of Luzon, and Cebu and Iloilo, from which are worked the Visayan Islands and Mindanao.

In the absence of direct American traveling representatives, the best selling method for this equipment would be through jobbers or manufacturers' agents. Probably in the case of this type of equipment the manufacturers' representative would be better situated to cover the trade than other concerns, since he can call personally on garages or car dealers who have need for such equipment. However, there are a few spare parts and accessory dealers in Manila who stock such equipment and who would undoubtedly be excellent contacts for such lines if an agency could be concluded with them. There is also a limited number of firms engaged in the sale of automotive parts and garage equipment, the majority of whom already have contacts in the United States or can order directly from a manufacturer if an agency arrangement is not desirable.

The customary terms of selling to this market are 60 to 90 days documents against payment to reputable houses, and irrevocable letter of credit to all others.

There appears to be a growing recognition in the Philippines of the need for better and more modern service and garage equipment, which is evidenced from the type of equipment installed by the

various oil companies and others in their erection of oil stations in Manila and provincial towns. There is also a strong tendency for local garages to replace any obsolete equipment with the most modern type available.

### SIAM

**Small Demand for Replacement Parts and Service Appliances, with Accessory Requirements Declining—American Products Supply Three-Fourths of the Demand—Increasing Competition from European Sources**

*Assistant Trade Commissioner Joe D. Walstrom, Bangkok*

Motor-vehicle registrations as of January 1, 1931: 4,272 passenger cars, 792 busses, 2,057 trucks, and 414 motor cycles.

During the past five years there has been a satisfactory importation of parts and other equipment into Siam, although the market is relatively small, and no abnormal expansion in this direction may be anticipated.

One of the most important factors which limits the future expansion of the automotive business is the relatively small amount of improved highway mileage. According to official estimates, there are at the present time 441 miles of improved road in northern Siam, 326 miles in central Siam, 33 miles in southern Siam, and 123 miles in the city of Bangkok, or a total of 923 miles. In this connection it may be said that Siam has an excellent system of Government-operated railways, and the policy is to allow preference to the railways in any scheme of national transportation development. Consequently most of the highways outside of Bangkok serve as feeders to the railway lines.

In addition to the improved highway mileage mentioned above, there are numerous bullock and cart roads which are passable at certain times of the year. During the dry season it is possible to travel long distances across the flat rice fields, so that the total highway mileage mentioned only partly indicates the extent of auto transport. At the same time, however, there are no highways connecting Bangkok with the other parts of Siam, and the cars in the city are thus restricted in their operations.

### REPLACEMENT PARTS

It is difficult to say what items are most in demand, although, with the exception of stampings, forgings, body hardware, and body upholstery, practically all replacement parts are imported to a limited extent. The trucks which are used upcountry in connection with transporting rice account for a good portion of the business in spring replacements.

The Siamese customs figures do not accurately indicate the country of origin but merely the place in which the goods were last owned, so that these statistics indicate that the share of motor-car parts coming from the United States is less than 50 per cent of the total. As a matter of fact, however, a good portion of imports from Singapore consist of American replacement parts, and imports from Netherland India and Canada likewise consist mostly of American replacement parts from foreign assembly plants.



On motor-car units originating in Europe the use of American replacement parts is rare. On the American units it is believed that 90 per cent of the parts originate in the United States.

Aside from body upholstery material and hardware there is no domestic competition. Foreign competition is encountered in bolts, brake lining, valves, piston pins, and rings. Most of these have been coming from Denmark, although Italy and Germany have recently entered the market, Germany, especially, supplying replacement parts for the small popular types of American passenger cars. The prices of these European replacement parts are slightly lower, although the main inducement to the local importer is more liberal credit terms.

#### ACCESSORIES

The imports of automotive accessories have steadily declined during the last three years. The principal reason for this decline is the fact that increasing numbers of cars have been coming in more fully equipped, and the need for accessories has consequently declined. Siam is essentially a price market, and since most accessories might be considered as luxury items the demand may be said to fluctuate in proportion to the country's prosperity.

The following items are in most demand: Bulb and electric horns, hand and mechanical jacks, tire pumps, shock absorbers, tire gauges, windshield cleaners, and small electric bulbs. To a lesser extent, lubricating systems, license plates, mirrors, novelties, and radiator heat indicators are also imported. There is little or no demand for body hoists, bumpers, chains, glare eliminators, theft-proof locks, luggage carriers, trunk racks, radiator shutters and shields, speedometers, taximeters, windshield visors, windshield wings, or car heaters.

In the year 1929-1930, about half of the accessories were imported from the United Kingdom alone. However, a considerable part of this business was due to motor-cycle accessories. Of the accessories which are sold exclusively for motor vehicles, about 70 per cent comes originally from the United States.

The only domestic competition from the standpoint of accessories is in covers for seats, radiators, hoods, and tires. The principal foreign competition comes from Great Britain, especially in such items as license plates, horns, and foot pumps. Lately the Japanese have been getting most of the business in lamps for head and tail lights, their prices being reported at 60 per cent under their competitors.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Several Bangkok automobile firms give satisfactory service in their garages at the present time, but in the many small repair shops and garages very little progress has been made in this direction. The average mechanic has obtained his training through experience. Very few, if any, of them have attended mechanical schools or received any outside education along this line.

Shop and garage equipment most in demand consists of battery chargers, jacks, small tools, paint-spraying equipment, tire-repairing machines, and valve grinders.

About three-fourths of the equipment now employed is of American origin. None of the garage equipment now in use is made locally, and it is improbable that any activity in this direction will occur in the near future.

The principal foreign competition is confined to three or four items. It is estimated that over half of the battery chargers come from Europe, mostly Great Britain, Germany, and France. About 40 per cent of the jacks, both hydraulic and mechanical, come from Europe, usually Great Britain. American wrenches are said to be too expensive, so that most of these are of German manufacture. Welding outfits have been coming from France.

The statement made above concerning certain items most in demand does not mean that there will be any large possibilities in the near future for the sale of such equipment. In fact, there seems to be a lack of any further recognition for better and more modern garage and service facilities. One reason is because the market is comparatively small and the four or five garages which do satisfactory repair work are apparently adequate for the number of cars to be served. The smaller repair shops are operated on very little capital, and the owners do not have the means to purchase additional equipment. Furthermore, there has been very small demand for "rush jobs," and car owners are inclined to be lenient about the length of time it takes to do repair work.

The cost of electric current is high compared with most other cities in the Orient.

In changing tires, hand tools are used exclusively, and most tire repairing is done in the small Chinese shops.

The few up-to-date garages are operated by automobile dealers, and most of the important repair work is done at these places. There are also many small Chinese and Siamese repair shops, patronized largely by taxi drivers and owners of the lower-priced cars, but such places are not in a position to install adequate garage equipment.

The merchandising methods of the replacement parts, accessories, and garage equipment are so similar that they may be considered under one heading.

Practically all automotive equipment is imported through Bangkok, where the majority of the cars are to be found. There are a few small towns in northern Siam, such as Korat, Chiangmai, and Lampang, which serve as distribution centers to a much smaller extent, but these places obtain all of their requirements through connections in Bangkok, usually the large auto dealers and one or two firms dealing especially in automotive equipment.

It is estimated that 75 per cent of all American replacement parts and accessories are purchased from manufacturers' representatives. The larger importers have their direct connections in the United States, but one or two of the manufacturers' representatives maintain active offices in Bangkok, and several more have traveling representatives who make periodic calls.

There is no definite trend toward distribution of parts and accessories by automobile dealers, although on account of the small market most dealers have always carried and distributed small stocks. Like-

wise, accessory shops often carry stocks of replacement parts for the more popular cars. Dealers, on the other hand, rarely carry replacement parts except for the make of cars which they represent. Accessories are sold through specialty dealers, although auto agencies and repair shops also carry small stocks. Local firms seldom carry accessories which are directly competitive to others which they may stock, although occasionally one may find a low-priced and a high-priced item of the same type of accessory.

The market is highly competitive, and a surprisingly wide variety of articles may be obtained. Local retailers experience no difficulty in locating a source for any particular item, and distribution channels cover the market thoroughly.

The market has apparently not been deemed large enough to warrant any expensive outlay to extend the sale of any one product by advertising. Advertising in the English and Siamese newspapers, and by means of window posters, placards, and other outdoor signs would all be effective, although it is difficult to say which particular one of these media would bring the best results.

There are one or two reasons which enable European manufacturers to compete with the American replacement parts, accessories, and service equipment, although the latter are very favorably regarded because of their quality. The first of these is price; certain European automotive products vary from 10 to 50 per cent under the prices quoted by manufacturers in the United States. Japan also is a possible contender for some of this trade. In every line in which the Japanese compete their prices seem to be considerably below those of European or American firms, and they have already entered the market in a few accessory lines.

Perhaps the greatest incentive which the Siamese importer has for buying European goods is the liberal credit terms offered. Whereas American manufacturers or their representatives offer 30 to 60 day documents against payment, European firms almost invariably quote documents against acceptance terms, and sometimes for 90-day periods. At this time, however, it is believed that American exporters should continue with the credits they are now offering. At this time, when Siam is undergoing a serious economic depression, the liberal credit terms and lower prices offered by foreign manufacturers are an inducement to buy other than American products. The country's exports have been considerably reduced in value and the purchasing power of the people has declined proportionately. This, however, is only a temporary situation. As yet, the competition from foreign automotive equipment has not shown any great advance, and it is the opinion of Bangkok automotive firms that as long as American motor cars dominate the market the majority of parts, accessories, and garage equipment will be of American origin.

## SYRIA

**Demand for Replacement Parts Increasing, Accessories Low, Service Appliances Limited—American Participation in Replacement Parts and Service Appliances Heavy; Accessories Low—Increasing Domestic Competition in Replacement Parts**

Vice Consul Nelle B. Stogsdall, Beirut

Motor-vehicle registrations as of January 1, 1931: 8,808 passenger cars, 2,166 trucks and busses, and 321 motor cycles.

Syria, as covered in this survey, includes all the territory of the Levant under French mandate, comprising the Lebanese Republic, the State of Syria, the Government of Latakia, the Government of the Djebel Druze, and the autonomous Sanjak of Alexandretta.

## REPLACEMENT PARTS

The trade in replacement parts sprang up in 1919 when automobiles were popularized, and ever since that time the market has grown steadily in proportion to the increase in the number of motor vehicles in operation in this territory. Whereas in 1920 there were no more than 200 passenger cars and trucks, the registrations at the end of the year 1930 numbered 10,246 cars and trucks.

An obstacle which recently impeded the growth of this trade was the increase of import duty on replacement parts from 25 to 45 per cent ad valorem, by decree No. 3267 of September 2, 1930. The immediate effect of this decree was to encourage chauffeurs owning old models of cars to take them to pieces in order to sell the parts with profit, thus competing with local importers of replacement parts. However, this must be regarded as a purely temporary situation in that the specific duty on new cars, which amounts to the equivalent of 45 per cent ad valorem or higher, makes it unprofitable to replace an old model with a new one.

The items listed according to their demand are brake lining, fan belts, spark plugs, piston rings, ball and roller bearings, gears, pinions, drive shafts, valves, pistons and piston pins, clutch facing, springs, and batteries, bolts, bushings, plain bearings, radiator and gasoline tank caps, rim and rim parts, driving or timing chains, connecting rods, and body upholstery material. Such items as stampings, body hardware, forgings, steering wheels, auto frames, shims and shim stock, and starting and lighting generators are not in demand.

It is estimated that 85 per cent of the motor cars in operation are of American origin, but that 96 per cent of the replacement parts sold are American made, since the reputation of American batteries and other parts is so good that many of those operating foreign-made cars purchase replacement parts manufactured in the United States.

Foreign manufacturers are making an energetic effort to introduce their lines into this market, but as yet their greatest success has been in taking over 25 per cent of the trade in brake lining, fan belts, and spark plugs. Brake lining and fan belts are supplied chiefly by German firms, and spark plugs are supplied by French and German companies. In general, this success may be attributed to lower prices and easier terms.

Although the local supply is very small, importers are beginning to notice its competitive effects. Springs are made locally by blacksmiths and sell at a price 50 per cent below those imported from the United States. The local springs are now supplying about 50 per cent of the demand. The shafts for heavy trucks are made locally exclusively, and domestically produced bushings represent 20 per cent of the sales in this line.

The exclusive distributor for the mandated territory is usually appointed from among Beirut firms, and subagents are appointed in Damascus, Aleppo, and the other towns of Syria. The Beirut distributors frequently send traveling salesmen to visit the other cities in order to book orders which are filled from the Beirut warehouses. The distributor usually acts as wholesaler and retailer at the same time, and only a few firms have conducted their business on a commission basis. The latter method has proved less successful in that commission merchants generally refuse to extend credit to the retailers, who are usually too poor to place orders on a cash basis, whereas the wholesaler keeps a stock of goods on hand and is in a position immediately to furnish garages and retailers with the parts required and is able to grant them several days' credit.

French, German, and Italian firms grant from 60 to 120 days' credit, but most American firms ship against documents in Beirut, although a few grant from 60 to 90 days' credit.

The three distribution centers in Syria are Beirut, Aleppo, and Damascus, the first of which is the most important.

About 25 per cent of the total trade in replacement parts is handled by automobile dealers who obtain, direct from the automobile manufacturers, miscellaneous parts which are often not supplied by other manufacturers.

Foreign manufacturers recently notified distributors that prices had been reduced 30 per cent. Credit terms have not changed.

During the past year considerable space has been given to statements that motor cars are ruining Syria in that too large a portion of its small wealth goes abroad for the purchase of automobiles, tires, spare parts, gasoline, and oils. These views were given practical application by the decree No. 3267 of September 2, 1930, which increased the duty on passenger cars and on their spare parts and accessories to nearly twice what it had been formerly.

Since the enactment of the new tariff, American automotive imports do not appear to have suffered, at least in relation to French and European makes, in that they have not only maintained but have strengthened their former predominance, winning 90 per cent of the sales during the last six months of 1930 as compared with only about 85 per cent during the first part of the year.

American parts enjoy a long-established reputation of excellent quality, superior to that of European makes, but European manufactures have succeeded because of their lower prices in taking a share of the trade which was a few years ago exclusively in the hands of American companies. It must be appreciated that price is a very important factor in Syria, where the purchasing power of the population is very low particularly with taxi drivers, who earn only a meager livelihood and who constitute about 90 per cent of the car owners in Syria. Taxi drivers are almost all illiterate. There-

fore, printed advertising literature is believed to be ineffective. It is suggested, on the other hand, that small articles, such as knives, cigarette lighters, and ash trays bearing the trade-mark, a picture, and the name of the company advertising may be used to distribute among chauffeurs.

Because competition between automobile dealers is exceedingly keen and frequently unfriendly, these dealers do not like to purchase replacement parts from one another. It is believed, therefore, that agents who handle only replacement parts, accessories, tires, or such articles can distribute parts better than the dealers.

### ACCESSORIES

The demand for automotive accessories in Syria has always been exceedingly small, but recently it is said to have decreased owing to the impoverishment of the taxicab drivers, whose trade has suffered from the general economic depression. Chauffeurs constitute 90 per cent of the car owners in Syria, and the taxi rates are so low, owing to keen competition, that they are able to earn only the scantiest livelihood and are unable to buy anything for a car other than the parts strictly necessary for its operation.

Accessories most in demand are given below according to the numerical quantity of sales rather than value, the chief countries of supply being mentioned in parentheses: Bulb horns (France the exclusive supplier); electric horns (United States 70 per cent, France 15 per cent, Germany 15 per cent); hand jacks (United States 65 per cent, Germany and France 35 per cent); tire pumps (United States 25 per cent, Germany and France 75 per cent); headlights (France the exclusive supplier); wind-shield cleaners, hand and electric (American); taximeters (France the exclusive supplier); glare eliminators (France the exclusive supplier); rear and stop lights (American); bumpers, wind-shield visors, shock absorbers, and speedometers (cars arrive equipped with them, and very few are marketed locally); tire gauges (offered as advertising matter); luggage carriers and trunk racks (made locally); mirrors, rear view (made locally); seat covers (made locally); license plates (furnished by public works department for a small fee).

Body hoists, nonskid chains, heat indicators, radiators, mechanical jacks, lenses, lamps, parking lights, theft-proof locks, lubricating systems, radiator shutters and shields, wind-shield wings, novelties, and car heaters are not handled to any great extent in this market.

Only 25 per cent of the accessories sold in Syria are of American origin. France and Germany are said to share in supplying almost 75 per cent. Only a few automotive accessories are produced locally, namely, luggage carriers, and trunk racks, rear-view mirrors, and seat covers.

Accessories are usually imported by commission merchants who book orders from local retailers. Wholesalers of replacement parts handle some but not most accessories. As the demand is so relatively small, it would be difficult to find a distributor who would import on his own account and carry a permanent stock. It seems satisfactory, therefore, that a Beirut commission merchant be appointed exclusive agent to receive a fixed commission from the exporter

or the manufacturer. Under these circumstances a cautious credit policy with regard to ultimate customers is advised.

Very frequently the same firm handles competitive lines, but in some cases—and this practice is recommended—the agent handles a cheap and an expensive make of the same article, but not different makes having the same price level.

The present method of distribution, as described above, is considered adequate for the present limited market, but if there is a marked increase in demand it would probably be advisable that agents import on their own account and carry a permanent stock of goods.

European firms grant from 60 to 90 days credit, and American firms usually grant the same, although a few American companies grant up to 120 days credit to compensate somewhat for their higher prices.

Small stocks are usually carried by the local retailers and also by wholesalers of replacement parts, and by motor-car distributors.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Until very recently there were no well or modernly equipped garages or service stations in this territory, but about a year ago a local dealer in replacement parts, who also operates a garage, visited the United States and there purchased complete up-to-date equipment for his garage and secured agencies for the distribution of similar equipment. When his installation was completed other local dealers promptly imitated him. In consequence a relatively brisk trade in such equipment sprang up. However, local garage owners are relatively poor and have so little capital to invest that it is not believed that this trade will amount to much, at least in the near future.

There are very few persons in this part of the world who are trained mechanics, but since the popularization of automobiles, it has been necessary for a number of employees in garages and workshops to gain some mechanical knowledge through practical experience. The few trained mechanics employed have helped to train the other employees much as though they were apprentices. The only trade school in Syria, "Ecole des Arts et Metiers" at Beirut, recently offered courses in automobile mechanics, but the effect has not yet been discerned.

In view of the number of motor vehicles in operation in the states under French mandate and on account of the high customs duty and a generally restricted purchasing power which discourages the purchase of new automobiles and trucks to replace the old ones, it is believed that there is an opportunity for a well-trained mechanic to open and operate very successfully an up-to-date service station.

The United States is the exclusive supplier of garage and service-station equipment. The items most needed include garage tools, valve grinders, air compressors, portable drills, hydraulic and mechanical jacks, cylinder-boring machines, oil and grease guns, wrenches, high-pressure chassis lubricating systems and grease dispensing systems, paint-spraying equipment, tire-repairing machines including tire changers and vulcanizers, battery chargers, reamers,

and gasoline pumps, the latter being imported and handled by petroleum companies.

There is no general local production of garage and service-station equipment, but it was recently reported that a garage in Aleppo had begun to make its own drill holders copied from imported makes. This may be regarded as a forecast of future developments.

The chief limitation on the potential growth in the demand for such equipment is that garage owners and mechanics are ordinarily quite poor and without capital for investment in equipment even though convinced that it would be profitable to operate. Electrical appliances suffer from the fact that the current is about 6 cents per kilowatt-hour for such uses. Repair shops consider this rate exorbitant and feel they must generate their own electricity, which they can do at a rate of about 2 cents per kilowatt-hour.

Most tire repairing is done by the drivers themselves or is given to boys who do the repairs at their homes for very small charges. Hand tools are used almost exclusively. However, several mechanical tire-repair tools have been introduced here and are operated in the larger garages. Ordinarily, tires are taken to shops for repair only when they need vulcanizing.

In the absence of a direct American traveling representative it is believed that present distribution methods are the most satisfactory. Importers are at the same time wholesalers and retailers, and in order to sell they are obliged to extend credit to customers. In case the importing were done by a commission merchant, it is believed that the volume of trade would be restricted since factories would refuse to grant the necessary credit to customers in most instances.

In general, the cautious credit policy is recommended and shipments should be made against documents in Beirut unless the local distributor is well known to the exporter, in which case credit from 60 to 90 days might well be granted.

Most garages are owned by automobile dealers, but some relatively large ones are owned and operated separately.

The largest garages and service stations are located in Beirut, Aleppo, and Damascus, but Beirut is unquestionably the main distributing center. Representatives of garages in other cities visit Beirut for the purchase of equipment.

The immediate outlook for the sale of garage and service-station equipment is very good, but it is not believed that the market can expand indefinitely, as it will probably be limited by the generally low standard of living in the country and by the restricted purchasing power of the population.

## TAIWAN (FORMOSA)

**Present Demand for Replacement Parts Good; Accessories Increasing; Service Appliances Small—American Competition Active**

Vice Consul Charles S. Reed, 2d, Taihoku

Motor-vehicle registrations as of January 1, 1931: 950 passenger cars, 950 busses, 750 trucks, 400 motor cycles.

The development of the automotive market in Taiwan (Formosa) has been comparatively recent, fully 50 per cent of the motor vehicles having been imported within the last three years.



The popularity of American vehicles is of considerable importance in estimating the demand for replacement parts, accessories, and garage equipment. Between 98 and 99 per cent of the motor-car registrations is of American manufacture. Approximately 60 per cent of the motor-cycle registration is likewise of American origin.

Despite the rather small registration, the interest in motoring and in the operation of motor vehicles is active, and the demand for and imports of replacement parts and accessories are more than proportionately large. This situation devolves from the poor condition of most of the highways, the carelessness and inefficiency of the average chauffeur, and from the lack of adequate and proper servicing facilities throughout the island.

#### REPLACEMENT PARTS

Replacement parts most in demand are springs, brake lining, brake rods, ball and plain bearings, distributor parts, fan belts, gears, spark plugs, and cotter pins. Almost invariably the demand for replacements in the parts enumerated can be traced to poor roads, unskillful operation by chauffeurs, lack of proper and timely servicing, and in the cases of busses and trucks, to overloading.

The demand for replacement springs is large, both in value of sales and in actual requirement. Highways and roads in Taiwan outside urban limits are extremely rough, and the constant practice of overloading busses and trucks has created and will continue to create a substantial market for this type of replacement. American manufacturers contribute 97 per cent of the replacement spring sales, the remaining 3 per cent being attributable to British manufactures for British motor vehicles, and to Japanese manufactures in imitation of foreign products. These latter have achieved sales on a price basis.

American manufactures have failed to maintain a dominance in brake lining and brake rods, at present contributing but 65 per cent of the total sales. Japanese manufactures have captured a fair percentage of the supplied demand, and will in the future acquire an even greater share, possibly 50 per cent. A small portion of the market goes to German and British manufacturers.

Numerous other important items in demand include gear replacements, distributors and parts, and spark plugs. American spark plugs, being supplied with original purchases of motor cars, have contributed largely to the maintenance of this market, although Japanese plugs are cheaper and German makes, principally the "Bosch," are undoubtedly very popular and are being actively pushed.

Originally, American manufactures contributed practically 100 per cent of the supplied replacement parts. To-day, despite the drive of Japanese and certain European manufacturers to capture this market, the products of American makers figure very largely. Of the present gross annual demand, 75 per cent comes from American factories.

In a number of instances, especially in the case of a motor-car agency having but few sales or in the case of an agency handling a foreign make, Japanese "imitations" and British and German

parts have accomplished some percentage of sales—the “imitations” because of price considerations, the British and German manufactures because of suitability and through the natural course of trade competition.

#### ACCESSORIES

A careful survey indicates that the present gross expenditure for automotive accessories amounts to 140,000 yen annually, an average of 52 yen per car, which is low for passenger cars, but high for busses and trucks. This gross approximation of present annual demand is a substantial increase over previous years, and there is no doubt that the market will be materially enlarged in future years,

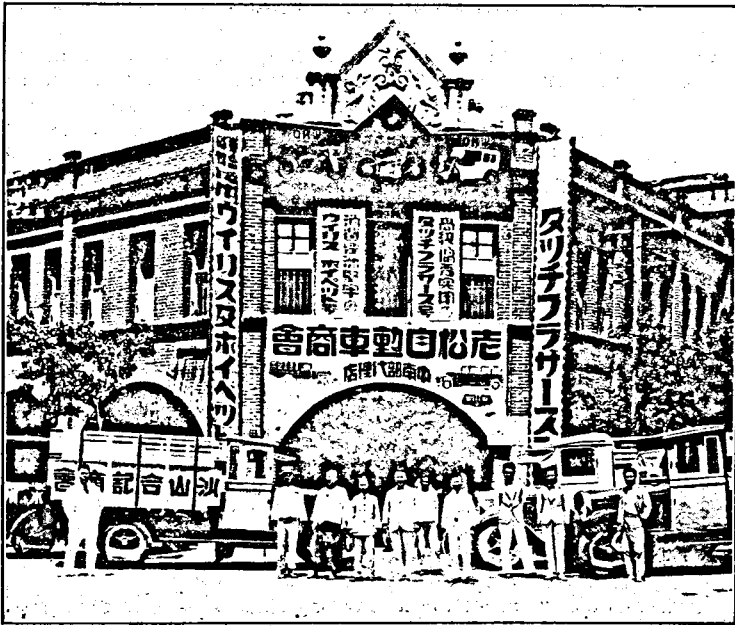


Figure 12.—Bizarre advertisements help to sell American automotive products in this establishment in Taiwan

not only as a result of increase in motor-vehicle registration, but from an augmented interest in such appliances.

Automotive accessories most in demand are horns, mud splash guards, tops, windshield wipers, windshield screens, pumps, novelties, and jacks. The fact that every car is required to have two horns, one electric and one bulb, and to use mud splash guards on every wheel during rainy weather, definitely determines the two leading items in the accessory trade.

American manufacturers contribute 70 per cent of the electric horns and a small percentage of the bulb horns. The Japanese producers supply approximately 5 per cent of the electric horns and almost 100 per cent of the bulb type. German makers supply about

25 per cent of the electric horns. Although these German horns are from 5 to 10 per cent higher in cost, they apparently will find an even better sale.

Mud splash guards are sheet-rubber curtains which are attached by rod-and-spring arms to the outside of each wheel. This market is held entirely by Japanese manufacturers, since no similar article has ever been imported from the United States or other foreign country.

Probably the largest of the remaining items in the accessory field is that of novelties. The present annual demand is placed at 17,500 yen and covers a great number of the lesser items of unique appeal or of certain practical application, ornaments of all types, etc. Of this demand it is believed that American manufacturers supply not more than 25 per cent, Japanese concerns contributing 60 per cent and German interests the remaining 15 per cent. Without regard to the particular appeal of the different items, the controlling factor in the market is the selling price.

Another item in which American manufacturers have some share is the sale of tire pumps, the annual demand being estimated at 7,000 yen. Japanese pumps account for 50 per cent of the sales, because of price. The 20 per cent allocated to American types rests upon a quality basis and the average buyer's belief that American automotive products are best. Windshield wipers, windshield screens, and similar attachments, at present account for 6,000 yen annually, to which American manufacturers contribute 70 per cent, German 10 per cent, and Japanese 20 per cent.

As with the market for replacement parts, American products originally accounted for practically the entire demand for accessories. During the past two years, however, there has been greater and greater pressure from Japanese and European products. As a consequence, only 45 per cent may now be allocated to American factories, although in the market for certain specific items, as much as 70 per cent is of American origin.

Local imitation of popular and well-known American accessories has not been unusual and has depreciated the market for American producers. In recent years the national urge to patronize domestic industry wherever possible has supplemented the weight of price consideration.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Notwithstanding the development of motoring throughout Taiwan, there has been little progress in the establishment of adequate garages and service stations. In the whole of Taiwan there are not more than four or five reasonably well-equipped service stations, and of these three are located in Taihoku. Although there are a number of trained mechanics in various centers, the mechanical equipment at their disposal is limited.

There is a small annual demand for battery chargers, air compressors, garage tools, jacks, and valve grinders. Items such as gasoline and oil pumps are supplied to the garages and service stations by the companies supplying gasoline and oil. Tire-repairing equipment is of the simplest nature, the work usually being done by establishments operated separately from garages and service stations.

Painting, spraying, and polishing equipment is not included in these establishments, there being a number of general lacquering and painting concerns which undertake the painting and refinishing of automobiles. Body building and repairing, especially for trucks, is not generally undertaken by garages and service stations but by ordinary shops equipped with a few drills, a lathe, and other minor items.

While a large number of garages have been established throughout Taiwan, none has any mechanical equipment worthy of mention. Usually an open shed, a length of hose for washing, a more or less complete set of tools, one or two hand jacks, and a few oil and grease guns constitute the entire investment. The better service stations possess such mechanical devices as are recommended and/or supplied by the distributor or manufacturer of the motor vehicle represented. All these better service stations are operated by local agents for certain American cars.

Since electric current is readily available at economical rates in practically all parts of Taiwan, the greater part of the equipment adaptable to electric power is of that type.

It is estimated that the total investment equipment in public garages and service stations in the whole of Taiwan is not more than 90,000 yen. Fully 80 per cent of this amount was purchased from American firms. Of the remaining, Japanese manufacturers supplied 19 per cent and British and German producers 1 per cent.

The largest single item is garage tools, and it is estimated that the present annual investment is 22,000 yen, exclusive of private garages. American makes contribute about 80 per cent to this amount, although in some of the larger garages nearly all the garage tools are American. German and Japanese concerns contribute to the remaining share of this market.

Air compressors are in some demand, annual imports approximating 1,000 yen, supplementing the present investment of 6,000 yen. Jacks, both mechanical and otherwise, also constitute an item in the equipment of garages and service stations in which American manufacturers have practically the entire trade. There is, however, a considerable demand for jacks for private establishments, and the annual imports for this purpose are believed to be double the estimate given above. Japanese manufactures contribute largely to this trade because of price.

Valve grinders, riveting machines, cylinder borers, etc., are almost without exception of American manufacture.

It is in the smaller items of use in garages and service stations that Japanese manufacturers have established a substantial share. Likewise, the share of British and German producers is, except for one British make, in the less-important types of equipment.

Garages and service stations are concerned only with minor tire repairs, no mechanical equipment such as vulcanizers being used. There are, however, a number of tire-repair establishments employing mechanical equipment, these places generally doing such business in connection with tire sales, but with no other connection with the automotive industry. The number of such concerns is limited, there being 3 in Taihoku and not more than 2 or 3 in the other parts of the island; 6 or 7 other concerns carry a small amount of mechanical equipment.

The total investment in equipment in these tire establishments throughout Taiwan is at the most approximately equal to that invested in the three shops mentioned in Taihoku, a gross total of 35,000 yen.

Prospects in this line of repair work are good. Road conditions in Taiwan result in a large number of tire replacements, which might be obviated in part by practical tire repairs. It is understood that the operator of one of the service stations in Taihoku, who is also the agent for a popular low-priced American car, is planning a complete tire-repair shop in connection with the service station. The equipment for this will undoubtedly be purchased through or upon the recommendation of the distributor.

About 90 per cent of the gross value of accessories and replacement parts marketed in this territory are distributed through automobile agents. As far as can be ascertained, there are no shops devoted solely to the sale of automotive appliances. The greater part of these appliances, including service-station equipment, is supplied by and through the distributor or manufacturer of motor vehicles, usually located in Japan proper. Few of the concerns in Taiwan are able or willing to engage in direct foreign trade.

Naturally this situation does not hold with the trade in Japanese products. To this fact, as well as to the ever-present factor of price, may be attributed the increasing share of Japanese participation in parts and accessories.

Distribution of British and German products has been established through agents for British cars, through general agents in Japan proper, and in a very small degree through direct negotiation. Of all direct negotiations for foreign accessories the majority are with the United States. This is due to the high opinion of the quality of American manufactures. In almost every case where a British, German, and/or Japanese article has assumed a share of the local market dealers are fairly unanimous in placing the reason in the cost price.

Local concerns find the arranging of credit and terms of payment with distributors in Japan proper much easier in view of the long-established relations, although present credit conditions have brought about an almost universal adoption of payment by irrevocable letters of credit. It is not believed that the increasing share of British, German, and/or Japanese manufactures in this market is due to more favorable terms of credit than those offered by American firms. It is believed, however, that distributors in Japan proper, working direct or covering the territory by traveling agents, are in a better position to judge credit. It is also certain that these are in a position to judge advertising requirements and to make allowances therefor if such be the practice.

With the increase in motor-vehicle registrations in Taiwan as traversable highways and roads are opened there will be a definite increase in the market for replacements, accessories, and service-station and tire-repairing equipment.

American manufacturers working through the central distributors in Japan proper should be able to maintain their favorable position as suppliers of replacement parts without much trouble. Independent suppliers of both replacement parts and accessories should, however, avoid the practice of quoting higher prices to inquirers from

Taiwan than those quoted to large firms in Japan. In many cases the same or similar articles can be obtained more cheaply through middlemen in Japan proper than by direct importing.

Since there are comparatively few firms dealing in automotive products, competing lines are often handled by the same dealer. Especially in the marketing of certain accessories this has worked to the disadvantage of American manufacturers and has to some extent allowed the increase of the Japanese share in the market. Japanese producers are quick to place upon the market imitations of popular devices, and by quoting lower prices they can make their articles more profitable ventures for the dealer.

The latter part of 1930 was generally unfavorable. This, however, is not an indication of general tendency. The situation was naturally favorable to the sales of low-priced articles. Automobile dealers are unanimously optimistic as to the future. There is, moreover, no doubt that the initial impetus given to sales of American products by early entry into and domination of this market, together with the method of distribution, instill confidence that American automotives will continue to lead.

## AUSTRALIA, NEW ZEALAND, AND PACIFIC ISLANDS

### AUSTRALIA

**Present Demand for Replacement Parts Fair, with Increasing Local Competition Aided by Protective Duties—Accessory Demand Limited—Service Appliance Market Good—Domestic Production Increasing in All Automotive Lines**

**Trade Commissioner James K. Feebles, Sydney**

Motor-vehicle registrations as of January 1, 1931: 444,554 passenger cars, 2,364 busses, 116,739 trucks, and 83,036 motor cycles.

Until 1927 replacement parts for the Australian automotive requirements were supplied mostly by the United States. In 1928 a beginning was made in the local manufacture of parts, and in the following year Australian manufacturers started production in sufficient volume to offer competition with imported articles. During the year 1930, largely as a result of increases in the import duties on parts, the Australian producer was able to get a substantial share of the business. Furthermore, the slump in the automotive trade, particularly during the last half of 1930, made it difficult for dealers to handle substantial stocks. Demand was limited and small orders only were placed, these being conveniently handled by the local manufacturer. Price, too, became a most important consideration, so that again the domestic industry could underquote the oversea suppliers. The adverse rate of exchange, reaching in excess of 30 per cent during January, 1930, plus primage duty of 4 per cent, put the importer of American automotive parts in a decidedly unfavorable position.

**SUMMARY OF THE MARKET FOR AMERICAN REPLACEMENT PARTS, ACCESSORIES, AND SERVICE APPLIANCES IN THE SOUTH PACIFIC**

Country	United States exports in 1930			Present demand			American participation		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Australia.....	\$1,924,809	\$145,948	\$150,164	Fair.....	Limited.....	Good.....	Leads.....	Fair.....	90 per cent.
French Oceania.....	4,559	2,283	628	do.....	Growing.....	Nil.....	90 per cent.	95 per cent.	95 per cent.
Fiji Islands.....				do.....	Small.....	do.....	80 per cent.	100 per cent.	100 per cent.
New Zealand.....	877,067	190,864	178,858	Good.....	Down.....	Favorable.....	Heavy.....	85 per cent.	Heavy.
Cook Islands.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	Small.....	Nil.....	Nil.....	90 per cent.	Indefinite.....	100 per cent.
American Samoa.....				Limited.....	Limited.....	Limited.....	100 per cent.	100 per cent.	100 per cent.
Western Samoa.....				Fair.....	do.....	do.....	Heavy.....	Heavy.....	Heavy.

Country	Domestic production			European competition		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Australia.....	Growing.....	Growing.....	Growing.....	Nil.....	Small.....	Small.
French Oceania.....	None.....	None.....	None.....	Small.....	Nil.....	Nil.
Fiji Islands.....	do.....	do.....	do.....	Fair.....	do.....	Do.
New Zealand.....	do.....	do.....	do.....	do.....	Small.....	Do.
Cook Islands.....	do.....	do.....	do.....	None.....	None.....	Do.
American Samoa.....	do.....	do.....	do.....	do.....	do.....	Do.
Western Samoa.....	do.....	do.....	do.....	do.....	do.....	Do.

<sup>1</sup> Included with New Zealand.



At the present time plain bearings, bolts, molded brake lining, bushings, fan belts, spark plugs, springs, valves, radiator caps, pistons, piston rings, body hardware, gears, pinions, drive shafts, and piston pins are all manufactured in Australia. Odd sizes of piston rings are still imported mostly from the United States, which also supplies about 75 per cent of the clutch facing, driving and timing chains, as well as copper and asbestos gaskets. Rim parts are produced locally, but rims are still imported mostly from the United States.

As American cars predominate in this market, the replacement parts most in demand would in general conform to similar requirements in the United States.

Distribution is secured through the leading commission agents who cover the garage and automobile firms. It frequently occurs that the larger importing commission agents are wholesalers and retailers to the garages and automobile dealers. These supply houses carry mixed stocks of imported and locally made parts. The latter have become increasingly prominent during the past year.

The larger parts-supply houses which do both a retail and wholesale business and have previously done a large import business, insist upon dealing direct with the American manufacturer. Such firms have sufficient salesmen in the field to cover the principal smaller towns. It is evident that the importer working on commission only is finding it increasingly difficult to place his lines. The wholesale-retail parts house feels it must buy direct in handling both the imported and domestic article.

Terms range from 40 to 60 per cent off list, with drafts payable 60 to 90 days after sight. These terms are current in the business of the older, well-established firms. Small firms are usually quoted sight draft terms with the above discounts.

All of the articles mentioned as being produced locally are gaining rapidly at the expense of the American articles, the chief reason being the heavy protective duties. There is a well-sustained program throughout the country to encourage the use of locally made parts which is only a part of the general desire of the country as a whole to stimulate Australian manufactures.

Distribution would conform to States; that is, Brisbane would be the center for the State of Queensland, Sydney for the State of New South Wales, Melbourne for the State of Victoria, Adelaide for the State of South Australia, and Perth for Western Australia. Hobart would be the center for Tasmania.

Trade magazines do not have sufficient circulation to attract any great amount of advertising of parts. House organs of automotive manufacturing associations and directories issued by these groups carry considerable advertising. Direct-mail advertising by the wholesaler to the garagemen, followed by personal calls of the wholesaler's salesmen, is the most common method of sales promotion. The parts house relies chiefly on its traveling salesmen.

#### ACCESSORIES

The extent of the existing demand for accessories is limited as new cars are delivered with many of the articles which the new-car buyer formerly would purchase independently. It is not the uni-

universal practice, however, for a new car to be sold with bumpers, and a few other items which have become stock equipment in the United States. The accessory dealers claim that there is very little which the new-car buyer will purchase beyond any equipment which goes with the new car.

Accessories most in demand at the present time are doubtless tools in addition to those which go with the average car. There is practically no demand for novelties, and as the climate is uniformly very moderate there is practically no installation of car-heating equipment.

The following items are of local manufacture and on account of the protection offered by the heavy rates of duty are getting a large share of the trade: Body hoists; bumpers; nonskid chains; covers



Figure 13.—Service needs are becoming evident in Western Australia, where the automobile is eliminating the camel train as a mode of transportation

for hood, radiator, and tire; glare eliminators; hand and mechanical jacks; license plates; luggage carriers and trunk racks; rear-view mirrors; tire pumps; seat covers; windshield visors; both hand and electric windshield cleaners; and windshield wings.

Shock absorbers are made locally to the extent of about half of the demand. Speedometers are supplied about 50 per cent from the United States and the remainder from England. The item of windshield cleaners is almost entirely in the hands of local producers, as the import duty on the hand-operated cleaner, which sells in the United States for about 25 cents, is 7 shillings 6 pence (approximately \$1.90). The electric windshield cleaner is an imported article and comes largely from the United States. Heat indicators, horns, radiator shutters, and speedometers are stock equipment, and where one of these items might not be stock equipment, it is at the present time not demanded by the car buyer.

Of the accessories not manufactured in Australia the United States supplies about 75 per cent of the trade.

Accessories are marketed through commission agents selling direct to the wholesalers, but the larger portion of the trade is handled by wholesale-retail houses, which also import very largely on their own account. The best method of coverage would be through a well-

established commission agent, who has facilities for covering the principal centers of the commonwealth. Another method very effective but requiring more effort on the part of the American accessory exporter is dealing direct with the larger wholesale-retail accessory and parts houses in the five principal cities of the commonwealth. These houses themselves have traveling salesmen who cover their respective trade territories, and the salesman is a very important factor in the sale of automobile accessories. Both the wholesaler-retailer and the commission agent may handle competitive lines. In the case of the commission agent, he may also have two lines of brake lining, for example, but in placing agencies for these lines he would avoid competition.

The present distribution channels appear to cover the market adequately. In fact, there is evidence that the commission man is having a rather difficult time to keep his lines with the more active wholesalers, the reason for this being that the market is decreasing and local production of many accessory items makes it difficult for the imported article to meet the price on account of heavy import duties and recently a heavy adverse rate of exchange.

The usual terms of this trade are 40 to 60 per cent off the list with 30 to 60 days after sight draft.

Stocks of accessories are carried largely by the wholesaler-retailer, but not as a rule by the commission agent. Garages and car agencies carry limited quantities of this line. The accessory trade has fallen off heavily, not only because of the tendency of the motor-car manufacturer to more completely equip the car, but on account of the decline in purchasing power of the people.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Much has been done by the leading automobile manufacturers in providing and encouraging better automobile service facilities. Several organizations handling American cars have made provisions for the out-of-town dealers to get modern instruction with good equipment. Not only in the larger cities of the Commonwealth but in the smaller towns well-equipped garages are common, where practically any kind of repair work can be properly carried on.

There are a number of well-trained and capable mechanics available. In fact, at the present time there are a large number of skilled mechanics who are without employment.

Air compressors, auto lifts, battery chargers, cranes, garage tools, gasoline pumps, hydraulic and mechanical jacks, oil-dispensing pumps, paint-spraying equipment, reamers, towing and salvaging equipment, and welding outfits are all manufactured locally. Cylinder-boring machines are of American manufacture as well as being manufactured locally. High-pressure chassis lubricating systems and grease-dispensing systems, as well as oil and grease guns, are supplied by the United States and Great Britain, although the latter commodity comes mostly from America. Polishing machines are just being put on the Australian market. Brake-testing machines have not yet been generally established locally.

Portable drills are of American origin, as are valve grinders. Wrenches are both locally manufactured and imported, while wheel-alignment equipment is seldom used.

Reboring machines found a fair sale in the early part of 1930, but a continued slump in the automotive trades has been reflected in decreasing demand for shop equipment. It is the opinion in the automotive trades that garages as a whole are well equipped and in fact overequipped, considering the present volume of unsatisfactory business.

There is no obstacle to the use of mechanical equipment. Electric current is largely available to garages at rates which are an inducement to the use of electrically-driven tools.

Tires are changed with hand tools. Most tire repairing is done in garages, there being relatively little specialization in this field. In several of the larger cities there are exclusive tire-repair shops, but in the smaller centers most of the garages have a small vulcanizing outfit and do the bulk of the business.

The principal competition for American garage equipment comes from the domestic industry.

Garage men act as dealers in many cases for certain makes of cars, but as a rule the garage man is not controlled by a company selling cars. Consequently, the garage man handling one automobile may have proper facilities for repairing several other makes. A large number of garages are in possession of dealerships in other fields, but many of them cater to the public for general repair work.

The wholesaler-retailer prefers to purchase direct wherever possible, and this is especially true in connection with garage and service-station equipment, which involves in many cases the investment of a considerable sum in a single machine. While manufacturers' agents are in a position to canvas a larger number of possible outlets for garage equipment, it is desirable that stocks be carried, and the wholesaler is the only one in a position to do this. Present distribution methods satisfactorily cover the possibilities of the Australian market.

The best terms for selling these commodities would be the same as supplied to replacement parts and accessories, namely drafts payable 30 to 60 days after sight.

Logical distribution areas are the five cities of Brisbane, Sydney, Melbourne, Adelaide, and Perth, in the five States of Queensland, New South Wales, Victoria, South Australia, and Western Australia, the five cities being respective distributing centers for each State.

The Australian garage man is progressive and has installed modern equipment and is generally in a position to turn out a good job at a reasonable price. The policies of distributors handling the more popular cars have raised the standard of service, and this in turn is reflected in the good previous sales of up-to-date equipment.

## COOK ISLANDS

American Consul William P. Garrety, Tahiti, Society Islands

Motor-vehicle registrations as of January 1, 1931: 70 passenger cars, 57 trucks, 7 motor cycles.

The Cook Islands, about 650 miles southwest of Tahiti, are a British colony governed by the Dominion of New Zealand. They have a few miles of road. The population is approximately 5,000. Ninety per cent of the cars in use are of American make, the balance being of British manufacture.

The sales possibilities of replacement parts and accessories during the years 1931 and 1932 are expected to be small, owing to the limited number of automobiles in operation and the small purchasing power of the inhabitants, due to the economic crisis and the curtailment of imports, particularly automobiles.

Approximately 90 per cent of all replacement parts are imported from the United States through New Zealand. No parts are made in the Cook Islands.

The leading distribution center is Rarotonga, the capital and principal port. There are no dealers who devote their time exclusively to the sale of parts because of the small demand. These parts are carried in stock by the local garage and automobile dealers. The demand for accessories is very small.

There is only one garage in the Cook Islands which turns out a fairly satisfactory class of work. The only service supplies used are hand tools, garage jacks, and a few tire pumps. All the appliances are imported from the United States and the market is of no consequence.

It is not believed that there is more than \$500 worth of service appliances in all of the Cook Islands. There are no service stations nor trained mechanics employed, nor is there any equipment made locally.

### FIJI ISLANDS

American Consul Quincy F. Roberts, Suva, Fiji Islands

Motor-vehicle registrations as of January 1, 1931: 874 passenger cars, 139 busses, 201 trucks, 192 motor cycles.

With the exception of spark plugs, fan belts, and body-upholstering material all replacement parts are imported by the automotive agents direct from the factory represented.

As automotive equipment is subject to hard usage in the Fiji Islands and is kept in running condition as long as possible there is a fairly good demand for repairs and such items as bearings, bolts, springs, valves, piston rings, pistons, gears, pinions, drive shafts, rims, and fenders. The tropical heat and excessive humidity are particularly trying on fenders, and it is necessary to replace these more often than in temperate climates.

There is a limited sale of auto frames, shims, shim stocks, driving chains, stampings, and forgings, and a small trade in radiator caps, steering wheels, and generators. Body-upholstering material including cushion-cover materials and upholstery fabrics and kapok are imported largely by one firm which does most of the upholstery work at Suva.

American replacement parts represent about 80 per cent of the total imports, while the remainder is of British manufacture.

It is thought that British producers sometimes offer larger discounts, but American prices are lower and though there is a preferential duty favoring British products, automotive-equipment dealers find it advantageous to use American replacement parts because of the predominating position of American cars in this market.

Two British cars, together with several low and medium-priced American cars are represented by agents at Suva, and the importers

and agents carry stocks of parts and accessories for use in their service garages and for direct sale to the consumer or purchaser. Owners of cars not of the popular classes are sometimes held up awaiting repairs and spare parts from the United States, Canada, or Australasia.

Outside of a few articles required for replacement there is little demand for accessories. The average car owner or taxicab proprietor is interested primarily in purchasing transportation, and windshields, wings, novelties, and other accessories except those required for the operation of the car are not desired.

The principal articles sold in this field are electric horns, jacks, lights, tire pumps, and tire gauges. Articles such as license plates, theft-proof locks, lubricating systems, luggage carriers, speedometers, taximeters, and car heaters are never sold in this market as replacements.

Accessories are imported by automobile dealers and agents who operate service garages in connection with their automobile agencies. Stocks of accessories for which there is a demand are kept by the dealers.

Importers of automotive accessories usually buy from the automobile factories represented on an agency basis, but in a few cases purchases are made outside. These purchases are usually made through their own branch offices or commission agents who assemble shipments and send them out on one bill of lading.

Practically all business in accessories is done by American firms, and there appears to be little opportunity of developing this trade in the Fiji Islands.

The three leading automobile importers and agencies operate small service garages in connection with their automobile agencies, and the facilities appear to be ample to take care of the number of cars in the territory.

Properly trained mechanics are not available in the colony, but Indian labor under trained European supervision is employed. Labor though not properly trained is cheap, and many operations in repairing automobiles can be done more economically by hand. Furthermore, the average Indian driver is not interested in the quality of the work turned out, and for this reason the trade has not forced garages to install machinery and service equipment. As an indication of the progress made in servicing cars it was not until the beginning of 1930 that service fuel pumps were established for the sale of gasoline. Only two of these filling stations have free air.

The small amount of garage equipment in use in the colony is of American manufacture. There is little or no foreign competition, and no equipment is manufactured locally.

Electric current is available at 240 volts direct current, but the price is 4d. per kilowatt hour, a rate which is fairly expensive in a country of cheap manual labor. Hand tools are used in changing tires. Most of the tire repairing is done by the owner or driver of the automobile.

The managers of the local garages are fully aware of the importance of equipment for garage service, but the small number of cars in the colony and the cheap labor available, as well as the indiffer-

ence of the public to the quality of service, are factors which have been against the most general use of efficient equipment. Service methods in Fiji are still very primitive and progress will be very slow.

## FRENCH OCEANIA

American Consul William F. Garrety, Tahiti, Society Islands

Motor-vehicle registrations as of January 1, 1931: 451 passenger cars, 63 trucks, and 40 motor cycles.

These comments cover the French establishments of French Oceania, that is, the Society, Marquesas, Tuomotus, Gambier, Rapa, and Moorea Islands. The area of all is approximately 1,240 square miles and the total population is approximately 36,000. The population of Papeete, the principal port, is about 5,569 and is composed of about 4 per cent white and 10 per cent Chinese, the remainder being Polynesian natives and half castes.

## REPLACEMENT PARTS

Sales of replacement parts throughout the year 1931 will be small. The colony of French Oceania is going through an economic crisis and all imports have been curtailed. However, the sales possibilities for the future, except for the most expensive cars, are fairly promising. It must be kept in mind that the actual number of replacement parts will never be large, owing to the small number of automobiles and limited buying power.

Replacement parts most in demand are brake linings, ball bearings, plain bearings, bushings, drive chains, fan belts, spark plugs, valves, springs, radiator caps, pistons, piston rings, gears, pinions, drive shafts, steering wheels, generators, rim and rim parts, rear axles, crank shafts, shock absorbers, and fenders. The above list includes those replacement parts which may be found in stock for one of the leading American cars at all times.

Approximately 90 per cent of all parts are imported from the United States. There are no parts made in French Oceania and competition of foreign parts has not been severe, since American parts are preferred because of the greater ease in obtaining them.

All replacement parts are carried in stock by the local garage and automobile dealers. There are no parts dealers in the colony who devote their attention exclusively to their sale. Therefore, the leading channels of distribution are through the leading firms that are a combination of auto agency and garage. There is no significant distribution trend evident in French Oceania.

Nearly all business with the United States and elsewhere is done through San Francisco commission houses. Running accounts are maintained, and payment for merchandise purchased is made by the shipment of local products such as copra, vanilla beans, or pearl shell, on consignment. Small merchants place their orders with local representatives of American or foreign commission houses who make credit arrangements locally. The usual term of credit is from 28 to 90 days after the acceptance of a sight draft at Papeete.

## 142 AUTOMOTIVE PARTS, ACCESSORIES, AND SERVICE EQUIPMENT

The leading distribution center is Papeete, the capital and leading seaport of French Oceania, with a population of about 6,000. The total population of French Oceania is 35,862, of which 14,154 are on the island of Tahiti. Ninety-five per cent of the automobiles in operation are used on the Island of Tahiti.

There is no advertising of parts. There are two merchants in Papeete who stock and sell parts. One of these handles parts for all American cars and the other stocks and carries parts for a low-priced French car.

### ACCESSORIES

The demand for accessories, while small, is generally increasing in view of the constant growth in registrations. Accessories most in demand are bumpers, radiators, tires, horns, lamps, rear-view mirrors, tire pumps, and hand and mechanical jacks.

The American trade has at present approximately 95 per cent of the total demand. Only small stocks are carried, and when an article is needed and not on hand, orders are placed through a commission house at San Francisco by the local dealers.

### GARAGE AND SERVICE-STATION EQUIPMENT

At Tahiti there are only two garages of any importance, and the class of work is fairly satisfactory. There are no service stations in French Oceania, nor are there any properly trained mechanics employed.

The only service supplies are hand tools, garage jacks, and a few tire pumps. All the appliances are imported from the United States, and the market is of no consequence because of the type and small number of garages. It is believed that there is not more than \$5,000 worth of service supplies in all of French Oceania. Approximately 95 per cent of the equipment used is manufactured in and purchased from the United States. There is no foreign competition or domestic production along this line.

The garage and shop equipment in French Oceania is believed to be adequate for the present demand. Service supplies are stocked by car agencies and garages only. Electric current is available for garages, but not on an economical basis for operation of service appliances. Furthermore, there are no properly trained mechanics to handle electrical equipment.

The greater part of tire repairing is done by individual owners, although there is a small amount done in garages. All garages in French Oceania are operated by automobile dealers, and present distribution methods are satisfactory.



## NEW ZEALAND

**Present Demand for Replacement Parts Good—Accessories Are Declining and the Market for Service Appliances and Garage Equipment Is Promising—American Participation Predominates**

Trade Commissioner Julian B. Foster, Wellington

Motor-vehicle registrations as of January 1, 1931: 154,674 passenger cars, 1,238 busses, 33,703 trucks, and 37,404 motor cycles.

## REPLACEMENT PARTS

Of the passenger cars in actual operation in New Zealand, American makes account for 78 per cent and British 22 per cent. The overwhelming popularity of the American car is attributed to a large extent to the fact that satisfactory stocks of replacement parts are available in practically every section of New Zealand. On the other hand, one of the great drawbacks in the sale of English cars is that their replacement supplies are limited, and owners of English machines frequently have to wait considerable time before they are able to get the necessary parts.

Of the 34,000 commercial vehicles in use, the American percentage predominates, being 82 per cent, and British 18 per cent. The same conditions that have been noted as applying to passenger cars also apply to commercial vehicles.

There is a steady demand for both plain, ball, or roller bearings, bolts, brake lining, bushings, spark plugs, valves, pistons, piston rings and pins, differential and fly-wheel ring gears, generators, rims, and rim parts. There is no indication of any sign of serious competition being encountered by American manufacturers of these products.

The only real competition experienced in the trade for ball or roller bearings is from the Swedish S. K. F. and the Ransom & Marler, the latter being used entirely on English cars. In brake lining the only English competition is from the Ferrodo band. In driving and timing chains there is only a small competition, from the Coventry chains of England. In motor-cycle chains, however, the United Kingdom products dominate the market.

American manufacturers of spark plugs have been given considerable competition recently by the German Bosch and British K. L. G. plug. Trade in springs is fair, the United States getting practically all of the business. In valves, the only competition is from the Franco, which are made for English cars only. Sales in these products are excellent. There is a steady demand for pistons, piston rings, and piston pins. Small quantities of rings and pistons are made locally, and there is also competition from the Brico English line.

The body-building industry in this country is not making much headway, the only noticeable development being the building of bodies for commercial vehicles. The large body builders in New Zealand buy direct from the United States all their body hardware, upholstery material, forgings, and stampings. Sales in these products, however, are not large, and do not show signs of immediate development.

There is a good sale of fly-wheel ring gears, while sales of crown-wheel pinions are very slow. There is practically no demand for steering wheels, since it is only rarely that replacements in this line are called for. One local firm secures nearly 90 per cent of the total business in rims and rim parts, and all of their purchases of these parts are from the United States.

It is the general opinion that if American manufacturers of motor replacement parts could supply articles suitable for British cars that within a short while practically all of the business in this line would be in their hands.

The most successful methods of distribution from an American manufacturer's viewpoint have been in the past through prominent factory representatives stationed in this country. However, there is a decided trend evident that the manufacturer's agent here handling motor replacement parts is securing less business than at any previous time. These men have been established by their contact with all of the large wholesalers, retailers, and garages, and their success is undoubtedly due to the fact that they have kept behind their distributors and helped them push their sales vigorously. Apart from the factory representatives, the most successful distributors are wholesalers who carry large stocks that are available to their customers at all times. The question of service and being able to supply stocks immediately on demand is most important in New Zealand. For this reason, manufacturer's agents who have simply placed orders on a commission basis before delivery, and then do not have stocks, have been placed at a great disadvantage, and by far the greater portion of the business is in the hands of four or five wholesalers who have branch offices in all of the many distribution centers.

The large wholesale houses are in most instances prepared to pay cash against documents American port, so as to secure the 2 per cent discount usually offered for cash payment. In the majority of cases their orders are placed through the medium of an export buying house in New York. In this way they are able to benefit by having their shipments pooled, with other shipments being made to the New Zealand market and thereby saving a suitable amount on the freight rates which they would have to pay on less-than-carload shipments. The 2 per cent which they pay the American buying house is more than saved to them by these transactions. On the other hand, manufacturer's agents in placing orders with dealers and garages frequently have to ask for 30, 60, or 90 days' credit terms, depending, of course, upon the individual reputation of the firm which is purchasing the parts.

The leading distribution centers for parts, accessories, and garage and service-station equipment are Auckland, Wellington, Christchurch, and Dunedin. From these centers stocks are distributed to all parts of both islands. There is not a town of any importance in New Zealand to-day which does not have a good supply of American replacement parts.

The most effective advertising methods are through the medium of newspapers, mail-order campaigns, and motor publications.

### ACCESSORIES

The market for accessories in New Zealand is very inactive, and sales of these products are decreasing. The New Zealand public is a very conservative one, and there is little sales effort demonstrated by dealers in garages in endeavoring to put accessories over to the public. From present indications it appears that it will be a long time before any appreciable increase in this line becomes evident.

Only very small stocks are carried by car agencies, garages, and service stations owing to the limited demand.

There are no sales of body hoists at the present time, which is due to an extent to serious economic depression through which New Zealand is now passing; when conditions improve sales of hoists will undoubtedly show a revival. There is practically no business in bumpers, nonskid chains, covers for hoods, radiators and tires, glare eliminators, heat indicators, lamp lenses, luggage carriers, and trunk racks (which in a few cases where they are used are built locally), tire pumps, radiator shutters and shields, speedometers, seat covers, or wind-shield visors, although a steady sale exists for wind-shield cleaners.

There is no sale of bulb horns, but there is an excellent market for electric horns, and in this line the United States products predominate. There is a good, steady sale of both hand and mechanical jacks, and the trade in this line gives promise of further increase during the next few years.

License plates are all manufactured locally, and as the distribution of these plates is controlled by the Government there is no opportunity for outside sources to secure any of this business.

The sale of lights, including head, rear, stop, and parking, is very small. Practically every car imported is completely equipped in this respect and replacements are low. Theft-proof locks are practically unknown.

Lubricating systems are having steady sales, practically all of the business in these products as well as in oil and grease guns and oil-dispensing pumps coming from the United States. Sales of rear-view mirrors are fair, as is the demand for shock absorbers; tire gauges and taximeters are in good demand.

New Zealand does not take to novelties, and in the accessory lines this is no exception. The accessory trade in so far as New Zealand is concerned appears to be steadily on the decline.

Of the total accessory business done the United States secures about 85 per cent with the balance going to England.

Accessories are marketed identically the same way as replacement parts with the exception of the fact that distributors, mostly wholesalers, do not carry heavy stocks. Present distribution channels cover the market adequately, but the main drawback in the sale here seems to be the lack of effort which garage owners and dealers make in putting these lines over to the public.

The usual terms in this trade are the same as those mentioned under replacement parts.

### GARAGE AND SERVICE-STATION EQUIPMENT

Tremendous improvement was noted in garage and service-station equipment in New Zealand in 1928-29, and this trade would have

gone steadily ahead had it not been for the unfavorable conditions which existed during the year 1930. Trade in these lines ceased abruptly for the time being, but as soon as conditions improve, more business may be expected. Every garage and service-station operator is impressed with the necessity of having up-to-date equipment. There are more than 12,000 service stations in operation throughout the country. They have properly trained mechanics, and American equipment predominates to a marked degree. In the majority of cases garages are operated by automobile dealers.

The lines most in demand are air compressors, auto lifts, car washers, cylinder-boring machines, cranes, garage tools, honing machines, valve refacers, piston grinders, and numerous smaller types of tools such as reaming sets, valve-receding tools, and brake-relining machines.

There is very little demand for tire-repairing machinery, most of this being done in garages by mechanics who use tire-rim tools.

Air compressors which have a good sale nearly all come from the United States. There is a fair demand for battery chargers and towing and salvaging equipment, with only slight competition from England in the latter item. Auto lifts have only just recently become known to any extent here, and the business which has been done comes from America. Brake-testing machines are very little used. Cylinder-boring machines have had a marked increase in sales, and they promise to develop into most satisfactory lines for firms handling them.

The majority of the cranes sold are mechanically operated. This line also gives promise, when times improve, of showing steady increase in sales.

Gasoline pumps have a very restricted sale, owing to the fact that the large oil companies own nearly all of these pumps and rent them out to service stations and garages. In the majority of cases they are purchased from the head office of the oil company in the United States. A French pump has made marked inroads on this market in the last two years. It is said to be simple and efficient, and is sold at a price approximately 25 per cent of that of American pumps.

There is practically no sale of welding outfits except by one company in New Zealand, and most of the sales in this equipment are made by British manufacturers.

The present methods of distribution of these products are satisfactory, and nearly all of the business is being done through wholesalers who carry stock.

The same conditions in regard to payment and credit terms apply in this case as has been noted under replacement parts.

The outlook for garage and service-station equipment is very bright, and American manufacturers should continue to get the greater portion of the business as soon as depressed conditions disappear. New Zealand is dependent primarily for her revenue on overseas shipments of butter, cheese, wool, and hides and skins. Prices realized on these products recently have been the lowest in years, and naturally the buying power of the people has diminished rapidly. Favorable signs for a recovery in prices on these products have been evidenced, and it is hoped that a gradual recovery will be noted by the end of 1931. This is dependent, of course, upon condi-

tions of the overseas markets for the primary products. If this occurs, American manufacturers of parts and garage equipment may expect renewed inquiries from this market.

### SAMOA, AMERICAN

*American Consul Quincy F. Roberts, Suva, Fiji Islands*

Motor-vehicle registrations as of January 1, 1931: 25 passenger cars, 8 busses, and 25 trucks.

All of the cars and trucks in operation are of American origin, and the majority are either owned by the Government of American Samoa or by United States naval officers connected with the Government.

The market for replacement parts is limited to the necessary parts for repairing and keeping in operation the small number of vehicles now in use. A fair supply of the more essential parts is kept on hand by the United States Navy, which operates a repair shop and garage at Pago Pago. All the trade is American, no foreign parts or supplies being imported into the islands.

Lamps, jacks, and pumps are the principal accessories imported. Stocks of accessories, because of the limited market, are not very large. Car owners are able to import accessories by mail order, domestic postal rates applying to shipments from the continental United States to American Samoa.

The island government operates a small repair shop and service garage for the government-owned cars and vehicles owned by naval officers. The amount of business done is limited, and the island offers but very little opportunity for the sale of service equipment. Purchases of supplies and equipment would be made through the United States Navy.

### SAMOA, WESTERN

*American Consul Quincy F. Roberts, Suva, Fiji Islands*

Motor-vehicle registrations as of January 1, 1931: 211 passenger cars, 18 busses, 151 trucks, and 13 motor cycles.

There are three general merchants in Apia, Western Samoa, who hold some eight agencies for low-priced and medium-priced American cars. The agencies for two popular British cars are also held by two of these firms. Replacement parts for the three or four more popular cars are stocked by the agents, who order the repair parts direct from the factory.

The demand for parts does not differ greatly from that prevailing in Fiji. One of the firms with two American agencies also holds the same agencies in Fiji, where more cars are in service and larger stocks of spares are carried for servicing these cars. Consequently this agent finds it possible to limit his stocks in Western Samoa and draw upon Suva stocks.

Replacement parts as a rule are imported by the agents, although small orders are sometimes placed by service garages doing repair work in Western Samoa.

## 148 AUTOMOTIVE PARTS, ACCESSORIES, AND SERVICE EQUIPMENT

Accessories are handled by the automobile agents and to a very limited extent by the general merchants of Apia. The market is very limited and is largely confined to the articles which replace standard equipment on cars exported to Western Samoa. Pumps, jacks, gauges, lamps, electric horns, and radiator caps are the more popular accessories finding a market in this territory.

Servicing cars has made little progress in Western Samoa. Repair work is still largely carried out by hand, and little or no service equipment and machinery is used.

The small number of automotive vehicles, the heavy investment required for service equipment, and the indifference of the public to the quality of the work are influences against the introduction of modern equipment. The volume of business is not in the territory to bring about the use of better servicing appliances.

The automotive trade of Western Samoa is American, and practically no other equipment is on the market. The business is limited by the number of cars in operation and the narrow field for expansion. American equipment has given satisfaction in this field and there is no reason to believe that American products will not continue to dominate this market, although there is a preferential tariff favoring British products.

## EUROPE

### ALBANIA

**Decided Growth Evident During the Past Year for Replacement Parts and Accessories—Only Slight Progress Has Been Made in Providing Adequate Servicing Facilities—American Products Provide the Bulk of the Demand in All Three Classes**

Vice Consul Paul H. Demille, Tirana

Motor vehicle registrations as of January 1, 1931: 450 units, including busses and trucks.

#### REPLACEMENT PARTS

Since the latter part of 1930 there has been a noticeable growth in the Albanian market for automobile replacement parts of American manufacture. This situation is due principally to the establishment of several additional agencies for American automobiles, since all agencies carry a good stock of American replacement parts as well.

It is believed that this market will slowly but steadily increase in proportion to the sale of American-made automobiles. As Albania has no railroad, almost all communication is made by motor car, and a larger sale of American-made automobiles and the consequent increase in the demand for replacement parts and accessories may be anticipated in view of the increasing construction of better roads.

Springs, plain, roller, and ball bearings, piston rings and pins, gears, rims, drive shafts, spark plugs, and fan belts are among the leading items sold in Albania.

Practically the entire market is supplied by American firms. There are no industrial plants in Albania producing parts or accessories and very little foreign competition, this being confined mainly to replacement springs from England.

SUMMARY OF THE MARKET FOR AMERICAN REPLACEMENT PARTS, ACCESSORIES, AND SERVICE APPLIANCES IN EUROPE

Country	United States exports in 1930			Present demand			American participation		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Albania.....	(1)	(1)	(1)	Growing	Growing	Limited	Leads	Leads	Leads
Austria.....	\$208,878	\$7,705	\$8,099	do	Down	Favorable	Heavy	Limited	50-60 per cent.
Azores.....	12,693	1,044	1,152	Down	Limited	Inactive	95 per cent.	65 per cent.	Slight.
Belgium and Luxemburg.....	2,251,909	94,317	74,238	Growing	Down	Growing	45 per cent.	Small	60-80 per cent.
Bulgaria.....	9,112	508	4,199	Steady	Growing	Restricted	25 per cent.	40 per cent.	Limited.
Czechoslovakia.....	129,248	7,362	10,803	do	do	Favorable	12-15 per cent.	Fair	Leads.
Danzig.....	(2)	(2)	(2)	Fair	Fair	Limited	Small	Small	Nil.
Denmark.....	1,467,990	74,817	92,200	Good	Growing	Favorable	75 per cent.	75 per cent.	Leads.
Estonia.....	22,789	338	2,797	Growing	do	Limited	70 per cent.	70 per cent.	Do.
Finland.....	216,455	12,732	24,472	Down	Limited	Favorable	90 per cent.	90 per cent.	90 per cent.
Faroe Islands.....	(3)	(3)	(3)	Limited	do	Limited	100 per cent.	100 per cent.	Leads.
France.....	1,922,163	66,204	211,782	Good	Fair	Growing	Limited	Limited	Heavy.
Germany.....	1,644,685	98,502	176,228	Slow	Down	do	do	10 per cent.	Favorable.
Gibraltar.....	818	66	66	Limited	Limited	Limited	Good	55 per cent.	75 per cent.
Great Britain.....	3,102,615	215,823	1,255,340	Good	Down	Favorable	Down	Limited	Leads.
Greece.....	226,929	9,062	15,067	Down	do	Limited	Good	Fair	Do.
Hungary.....	86,359	1,847	4,832	Slow	Low	Growing	50 per cent.	25 per cent.	60 per cent.
Iceland.....	33,850	4,567	2,598	Good	Growing	Limited	85 per cent.	95 per cent.	100 per cent.
Irish Free State.....	39,058	722	49,292	Growing	Down	Growing	15 per cent.	5-10 per cent.	50 per cent.
Italy.....	310,336	119,364	210,769	Good	Low	Favorable	Small	Small	Fair.
Latvia.....	38,752	26,320	1,816	Fair	Small	Small	75 per cent.	25 per cent.	20 per cent.
Lithuania.....	17,493	317	1,051	Good	Growing	Limited	do	do	Heavy.
Madeira Islands.....	(4)	(4)	(4)	Fair	Steady	do	Leads	75 per cent.	Leads.
Monaco.....	(5)	(5)	(5)	Nil	do	Nil	Limited	Nil	Nil.
Netherlands.....	676,677	42,517	119,523	Good	Down	Favorable	Leads	Small	Leads.
Norway.....	217,079	15,031	56,484	Growing	Growing	do	90 per cent.	Leads	Preferred.
Poland and Danzig.....	255,117	19,526	24,376	Good	Limited	Restricted	75 per cent.	Small	60 per cent.
Portugal.....	187,493	9,511	25,867	Slow	do	Small	60 per cent.	50 per cent.	Leads.
Rumania.....	229,501	4,389	17,201	Good	Down	Slow	Leads	Small	Do.
Spain.....	969,810	105,432	79,802	Slow	do	Growing	75 per cent.	50 per cent.	80-90 per cent.
Sweden.....	1,137,514	98,237	84,933	Good	Good	Favorable	75-80 per cent.	do	85 per cent.
Switzerland.....	184,383	17,691	43,355	do	do	Fair	Large	Fair	Leads.
Yugoslavia.....	51,946	1,569	7,678	Fair	Low	Favorable	50 per cent.	30-40 per cent.	Fair.



Country	Domestic production			European competition		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Albania.....	None.....	None.....	None.....	Small.....	Small.....	None.....
Austria.....	Fair.....	Large.....	Large.....	Heavy.....	Strong.....	Active.....
Azores.....	None.....	Small.....	None.....	Slight.....	Fair.....	Strong.....
Belgium and Luxemburg.....	Small.....	Large.....	Small.....	Active.....	Small.....	Growing.....
Bulgaria.....	do.....	Limited.....	None.....	Heavy.....	Active.....	Active.....
Czechoslovakia.....	Large.....	Large.....	Active.....	Fair.....	Growing.....	Growing.....
Danzig.....	Small.....	Small.....	Small.....	Heavy.....	Heavy.....	Heavy.....
Denmark.....	Slight.....	Growing.....	Active.....	Small.....	Small.....	Growing.....
Estonia.....	do.....	None.....	Slight.....	Fair.....	Fair.....	Active.....
Finland.....	do.....	Slight.....	None.....	Small.....	Small.....	Small.....
Faro Islands.....	None.....	None.....	do.....	None.....	None.....	None.....
France.....	Heavy.....	Heavy.....	Growing.....	Small.....	Slight.....	Slight.....
Germany.....	Good.....	do.....	Good.....	do.....	do.....	Small.....
Gibraltar.....	None.....	None.....	None.....	Small.....	Fair.....	Slight.....
Great Britain.....	Heavy.....	Large.....	Growing.....	Active.....	do.....	Small.....
Greece.....	Small.....	Small.....	None.....	Growing.....	Heavy.....	Slight.....
Hungary.....	do.....	do.....	Active.....	Strong.....	Strong.....	Fair.....
Iceland.....	None.....	None.....	None.....	Slight.....	Slight.....	None.....
Irish Free State.....	do.....	do.....	do.....	Strong.....	Strong.....	Active.....
Italy.....	Large.....	Large.....	Growing.....	Slight.....	Active.....	Small.....
Latvia.....	Small.....	Small.....	None.....	Active.....	Heavy.....	Heavy.....
Lithuania.....	None.....	do.....	do.....	Fair.....	do.....	Small.....
Madeira Islands.....	do.....	None.....	do.....	Small.....	Small.....	Small.....
Monaco.....	do.....	do.....	do.....	Heavy.....	Heavy.....	Heavy.....
Netherlands.....	Small.....	Small.....	do.....	Active.....	Strong.....	Growing.....
Norway.....	do.....	do.....	Small.....	Small.....	Growing.....	Do.....
Poland and Danzig.....	do.....	None.....	do.....	Fair.....	Heavy.....	Fair.....
Portugal.....	do.....	Fair.....	do.....	Growing.....	do.....	Limited.....
Rumania.....	None.....	None.....	None.....	Limited.....	Active.....	Slight.....
Spain.....	Important.....	Fair.....	Negligible.....	Keen.....	Active.....	Small.....
Sweden.....	Heavy.....	Heavy.....	Growing.....	Small.....	Growing.....	Small.....
Switzerland.....	do.....	Limited.....	Good.....	do.....	Active.....	Do.....
Yugoslavia.....	Slight.....	Small.....	None.....	Growing.....	Growing.....	Fair.....

1 Included with Yugoslavia.

2 Included with Poland.

3 Included with Denmark.

4 Included with Azores.

5 Included with France.

EUROPE

American firms require either cash payment with the order or payment against document at the bank. Foreign firms have offered local dealers the privilege of partial cash payment with the order and the remainder in 90 days.

Advertising may be said to be in its infancy. It consists for the most part in an occasional announcement in a local newspaper and a few posters publicly displayed.

#### ACCESSORIES

The same general conditions surround the demand for accessories as were mentioned under the heading of replacement parts.

Among the leading items in demand are lenses, lamps, lights (head and rear, with stop and parking lights in lesser quantities), electric horns, mechanical jacks, tire pumps, bumpers, luggage carriers, shock absorbers, and windshield cleaners, both hand and electric.

The demand is almost entirely supplied by American firms owing to the predominance of American cars in Albania. Automobile dealers are the sole distributors and keep a fair stock of accessories on hand.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Very little progress has been made in providing adequate automobile service facilities in Albania. There are still very few independent garages, and it was only about a year ago that the first gasoline supply station was installed. These supply stations are operated with a hand pump and are mostly of the stationary type.

Garage equipment is by no means complete and does not include such machinery as vulcanizers, towing and salvaging equipment, air compressors, cylinder-boring machines, brake-testing and polishing machines, hydraulic jacks, and tire changers. The installation of mechanical equipment has been limited, owing to lack of capital and the hesitancy of garage owners to invest.

Electric current is now available in almost all of the larger cities of Albania, which removes the obstacle in the use of mechanical equipment for garages. There is no local production, and foreign competition is limited to small purchases of wrenches or other garage tools. Hand tools are employed to change tires, generally by chauffeurs.

The best selling method is through automobile dealers, which method is considered satisfactory.

American firms require cash with order, or the opening of credit in a bank in the United States. Either course is recommended, especially in the case of an initial order. Later when business connections are established a revision in the credit terms may be made.

It can not be said that there is a growing recognition in Albania for the need of better and more modern service and garage equipment. Most passenger automobiles are owned and operated by chauffeurs as taxis. The wear and tear on these cars is great, owing to unfavorable road conditions and a certain amount of carelessness on the part of the chauffeurs. It is stated that automobiles are practically never overhauled, and when they have been driven 15,000 miles or more they are junked.

**AUSTRIA**

**The Austrian Market Shows a Growing Tendency Toward the Use of Imported Replacement Parts—The Accessory Demand Has Decreased About 10 to 15 Per Cent—This Country Offers an Important Potential Market for Garage and Service-Station Equipment**

Commercial Attaché Gardner Richardson, Vienna

Registration of motor vehicles as of January 1, 1931: 22,600 passenger cars, 1,700 trucks and busses, and 50,000 motor cycles.

**REPLACEMENT PARTS**

The Austrian market for replacement parts shows an upward tendency which is due not only to the constant gain in registration of automotive vehicles but also to the increasing use of imported parts for the manufacture of Austrian automobiles and trucks. American participation is relatively high and probably ranks next to German in importance as a supplier of parts.

The market for parts must be classified in two categories, which have different characteristics and present entirely different sales outlooks. The market for service parts is determined by the number of American automotive vehicles operated in Austria. The average life of a passenger car in Austria is estimated at five to six years, with an average yearly mileage of 18,000 kilometers. An overhaul and the replacement of some, notably engine, parts is usual after a mileage of approximately 35,000 kilometers. In the case of high-class cars, the average lifetime is higher, reaching from seven to nine years, and an overhaul usually takes place after a mileage of approximately 50,000 kilometers. The average lifetime of trucks is estimated at from four to five years, at a somewhat higher yearly mileage. The average lifetime of motor cycles is estimated to be five or six years, at a yearly mileage of 12,000 to 15,000 kilometers, an overhaul being, as a rule, advisable after a mileage of 15,000 to 20,000 kilometers for European machines and 20,000 to 30,000 kilometers for those of American make.

The demand for service parts in Austria is probably relatively higher than in Germany, because in spite of considerable investments made in recent years the status of toll roads is not yet entirely satisfactory in many parts of the country. Also a very considerable part of the Austrian mileage is over hilly or mountainous ground, with some of the steepest mountain roads in Europe. The combined influence of both factors creates considerable wear and tear, which is probably only partly offset by the greater average mileage covered in other countries with more favorable road conditions.

According to trade experts, the yearly increase of American automobiles and trucks, which amounts to approximately 400 units, is probably 10 to 15 per cent higher than the number of American automotive vehicles scrapped each year, so that the service market for replacement parts in general may be qualified as a stable one with a slightly increasing tendency.

The service market for American motor-cycle parts has grown in recent years, but owing to the decreased importation of American motor cycles this market is not likely to develop in the future at the same rate.

The market for American parts used for replacements in American passenger cars, trucks, and motor cycles is not to any very great extent affected by Austrian or other foreign competition, and as a rule both the local agents of American manufacturers and the owners of the vehicles prefer to use the original American parts. Major exceptions to this rule include springs, which are manufactured locally, as are batteries; brake linings, which are frequently replaced by German or English linings; pistons supplied by Swiss or German manufacturers, as is also the case in roller bearings, ordinary gear wheels of Austrian, German, or other origins, and ordinary chains, which are sometimes replaced by chains of English or German manufacture.

The market for imported parts used by the Austrian industry in the manufacture of passenger cars and trucks offers entirely different characteristics from the market for service parts, and it fluctuates widely in different years, both in regard to the quantities imported and the countries of origin. In past years there has been a marked tendency among manufacturers to import considerable, and in some lines increasing quantities of automobile parts in order to reduce the sales price of Austrian-made passenger cars and trucks and make them competitive with imported cars. A further reason for these imports is the lack of adequate local facilities for manufacturing certain parts in commercial quantities, as truck frames and electric generators. The volume of this market depends largely upon the number of passenger cars and trucks manufactured each year, which shows considerable fluctuation. The selection between competing merchandise is practically exclusively governed by price and credit considerations.

This market is therefore highly unstable, and it is difficult to foretell its future development. American participation has always been an important factor, and, according to trade opinions, is likely to increase in the future. German competition is, however, very strong, and this country is delivering a number of parts which were formerly imported from the United States. This is probably due to lower prices and more liberal credit terms, partly to the greater facility for rapid intercommunication and personal contact, and also the possibility of having small quantities of nonstandardized parts made to order by German factories, which is an important consideration in view of the small number of units of each model manufactured in Austria.

No set rule can be given regarding the proper method of increasing the volume of American sales in this market. But, in the first place, it is important to secure an active distributor with good contacts in the local industry; then he should carry not only samples but adequate stocks, and, finally, he must be in a position to meet prices and credit terms of German manufacturers. In most lines it is futile to argue the superior quality of the American product as a reason for higher prices, because the vast majority of cars and trucks manufactured in Austria at the present time must be built down to a price so that the sales price of each component is practically the only decisive factor, irrespective of minor differences in quality.

The future outlook for American sales of parts as components for the manufacture of automotive vehicles in Austria is difficult to foretell, and it will be largely determined by the choice of proper dis-

tributors and a very liberal price and credit policy. The necessity of keeping considerable parts on hand narrows the choice of prospective distributors down to a very limited number of Vienna firms with adequate financing facilities.

According to trade experts the following American replacement parts are likely to find a slowly growing though modest market in Austria: Valves, pistons, piston pins, piston rings, gears, drive shafts and differential gears, and rims. At the present time, a number of American parts are being imported, including spark plugs, which come in in large quantities, in spite of their higher price, competing very successfully with Bosch plugs; semimanufactured pistons which are finished in local factories and sold to Austrian automobile plants and repair works, but are forced to meet Swiss, German, and Austrian competition; piston rings, which are also used by some local factories but have to meet considerable, notably German, competition; silent chains which are gradually losing their place owing to German and Austrian competition; rims but for service only; fan belts in modest quantities; complete electric starting and lighting units and parts thereof for service purposes only; artificial leather and top covers for bodies in keen competition with French and German materials.

In addition to the above parts, which are regularly imported by wholesaling firms, other parts also of American automobiles are, of course, incidentally imported for replacement purposes by agents of American makes.

It is believed that clutch disks, chains, and gears may possibly be sold in the future, and it might be possible to develop at a later date the sale of standardized body frames which were formerly imported from Germany, provided the production of Austrian low-priced cars is resumed on more than the present low scale.

On the other hand, it is not thought that Austria offers a worthwhile market for bearings and roller bearings, because of local production; brake linings because of competition by 30 different makes; bolts, as well as stampings, forgings, and body hardware, due to local and German competition; springs because of Austrian production, steering wheels from Germany, auto frames made locally, and heavy truck frames imported from Germany. Furthermore, the possibility of selling generator units and lighting equipment against French, Swiss, and German competition seems unfavorable for the near future.

Until recently, service replacement parts were mainly stocked by the local distributors of the individual makes, some of whom carry considerable stocks. Local dealers of American vehicles sometimes complain that some manufacturers force them under the contract to carry a relatively large volume of parts for which they have to pay in cash, and that as a consequence each year they have to write off from their books relatively large amounts of money for unsold parts and parts for models which have become obsolete.

It is frequently pointed out that some foreign, notably French automobile manufacturers, permit their local distributors to carry adequate amounts of replacement parts on a commission basis, the import duty only being paid by the local distributor. It is also

pointed out that the amount of money invested by local dealers in replacement parts forces him to renew the contract with the American firm at all costs, and even to make unwise concessions and promises to the factory, if he is requested to, because he can not afford to lose the distributorship when carrying large stocks of parts on hand, for which he is not likely to find a buyer.

Credit terms vary a great deal in individual cases, but wholesalers demand and obtain, as a rule, 90 days from date of arrival. German firms frequently offer much longer terms, which, in extreme cases, reach 12 months. French manufacturers sometimes offer stocks of replacement parts on a consignment basis. Terms granted by local distributors to dealers and consumers, such as garages and factories, vary a good deal according to the financial standing and desirability of the customer, but frequently reach 180 days in the case of dealers and 120 days in the case of other buyers.

A rate of interest is sometimes agreed upon but rarely actually collected. Owing to the extremely liberal credit terms prevailing in the Austrian market, only such firms as have a sound financial status are in a position to act as distributors for American parts, while other foreign parts can be carried by smaller Austrian firms, some European, notably German, manufacturers being willing to grant credits, the duration of which is adapted to local requirements. A further serious handicap on importers of American replacement parts, notably bulky components, is the recent heavy increase in Atlantic shipping rates from 12 to 32 cents per cubic foot.

In planning sales campaigns in Austria it should not be overlooked that economic conditions have very much deteriorated within the last year and that the Steyr Works, the largest automobile factory, has practically been out of production since the fall of 1929, and it is doubtful whether it will resume its activities to any great extent during 1931. Due to the bad economic situation, the number of cars withdrawn from operation in January, 1931, was greater than the number of cars registered in this month; this situation may continue. In view of the above conditions, Austrian dealers naturally hesitate to invest money in new ventures, and it would be difficult to persuade local firms to make any considerable investment in new stocks or to start an extensive advertising campaign at the present.

#### ACCESSORIES

The Austrian market for accessories was very active in former years, and the participation of American business directly or through European firms was of considerable volume. This situation has, however, gradually changed in recent years, and the sale of accessories in general and American accessories in particular has decreased to about 10 to 15 per cent of its previous volume. The chief reason for this situation is that many articles have now become standard factory equipment on practically all classes of cars. Furthermore, a great number of European plants are now manufacturing accessories, so that competition has grown to be extremely keen and European terms difficult to meet. Credit terms have become very liberal, and are more or less identical with those granted for replacement parts. In numerous cases accessories also are offered on a consign-

ment basis. The outlook for future business is not good, and as a consequence a number of Austrian firms have discontinued or restricted their former participation in the accessory trade.

It is reported that the following American accessories can find a limited market in Austria: Mechanical, notably hydraulic, jacks are competitive and have to meet German and Austrian competition. Tire pumps have to meet strong German and French competition. Grease guns compete with the Tecalemite type, but sales are possible. The market for ordinary wind-shield cleaners was previously very large, but has now fallen to a small volume. It is, however, possible that cleaners operating horizontally along the full length of the wind-shield may be sold successfully in the future. Speedometers only for service purposes, as Austrian factories are ordering French and German makes. Batteries only for service purposes on American cars, Austrian factories using mainly batteries of domestic and German make. Skid chains of ordinary type can not be sold, because they are manufactured cheaply in Austria and in Germany, but there is a possibility of selling chains made from rubber or similar materials, as there is a growing movement against the use of metal chains and their use may even be forbidden at some future time. Radiator shutters are manufactured locally and are becoming increasingly popular, and it is believed that high-class American shutters could be sold. Sales of car heaters are very small, but it is expected that when economic conditions improve, sales will increase, notably for busses.

The following items of American manufacture are considered to have no market possibilities: Bumpers, which are produced locally and in other European countries; glare eliminators, which are produced by Germany, Switzerland, and France; shock absorbers from France and Germany; stop lights and direction indicators experience heavy competition; American taximeters have so far found no market and, in view of the very slow rate of increase of taxicabs, future prospects are negligible. Electric horns have not found a worthwhile market, inasmuch as they are included as standard equipment. The sale of bulb horns has diminished to a very small volume, and competition by various European countries is extremely keen. Theft-proof locks are manufactured locally and sold by several European countries, as are hand-operated tire pumps. The outlook for rear-view mirrors in quantities is very small. Radiator covers are gradually losing their former market, and American covers are said to be difficult to sell. Lamp lenses are sold only for service purposes for American cars. Luggage carriers and trunk racks are manufactured locally and imported from Germany.

Accessories are handled in Austria by a great variety of firms, notably by wholesale firms purchasing for their own account, factory commission agents, retail firms, distributors for Austrian and imported cars, car and motor-cycle dealers, garages, repair shops, dealers in sports equipment, department stores, and gasoline stations. The present distribution channels are more than sufficient to cover the market adequately. Due to the heavy decline in the volume of sales, a number of firms which formerly handled accessories have gone out of business or have discontinued carrying stocks. Accessories are sold to wholesale firms direct or through factory agents, and also direct to retail dealers.

The retail trade purchases from local wholesale firms or from the factory through factory agents; there are also a great many retail firms and garages which act simultaneously as factory distributors and retailers. Stocks are carried by wholesale firms, small stocks by factory agents, distributors, and sometimes also retail dealers. In frequent cases such stocks are kept on a consignment basis.

Credit terms are very liberal, ranging from 90 to 120 days in the wholesale trade, consignment arrangements being made frequently. Credits to retailers are very long and frequently amount to six months and more. Competition between German, French, Italian, Belgian, English, and Austrian accessories is very keen.

#### GARAGE AND SERVICE-STATION EQUIPMENT

The Austrian market for garage and service-station equipment has so far been very small, but there are indications that the trend is in the direction of modernizing the present inadequate service and garage system. It remains to be seen if the necessary large investments can be made under the present adverse financial conditions. There are very few modern and well-equipped garages and even fewer satisfactory service stations. Austria therefore offers an important potential market for such equipment, and with improving financial conditions American manufacturers should be able to obtain some fairly important sales in this market. There are no reasons other than financial which would restrict the use of mechanical equipment in the country. Trained mechanics are plentiful and electric current is available in practically all parts of the country. There is also a growing need for better and more modern service and better garages, especially in view of the fact that there is a rapidly growing percentage of car owners operating their cars themselves.

Within the last 12 months the sale of American equipment has shown a marked increase and, according to the latest trade estimates, constitutes 50 to 60 per cent of the sales made within this period in Austria. Broadly speaking, competition by Austrian, German, or other imported materials in this line is not nearly as severe as in the accessory business.

An analysis of the market possibilities of various garage and service articles shows that American air compressors are fair and increasing. Air compressors are manufactured locally and are also imported from Germany, but competition from both sources is not severe. The first American autolift was sold in Austria in 1930; several additional units have since been ordered or installed, and this business promises well for the future. Competition is encountered from locally constructed as well as German products. The sale of American battery chargers is not considered feasible, since a good article is manufactured locally, and also by the German electrical industry. Brake-testing machines will find a small market in the future among regional institutions, which the provincial governments propose to organize for experimental and testing purposes, but the market will remain a very narrow one.

Sales of car washers are increasing, but it is difficult to sell American equipment due to Austrian and German apparatus. Cylinder-



boring machines are sold in very small quantities against German and Austrian competition, but this business may grow in time. Cranes are manufactured locally, and it is not expected that the American product will have any great demand. Most ordinary garage tools are either made in Austria or imported from Germany. Some English tools are also sold. There is a limited market for very high-quality tools of American origin, but in the field of ordinary-quality tools American prices are noncompetitive. Large American jacks are sold in this market against strong German competition, and this line is likely to increase in the future. The Austrian market for gasoline pumps is at present more or less saturated. By various administrative regulations, the sale of imported pumps has been rendered very difficult in order to preserve the market for local manufacturers.

High-pressure chassis-lubricating and grease-dispensing devices have fair and increasing sales in which American products lead against cheaper German, Austrian, and Danish competition. Only very high-quality manufactures can successfully compete in this market and secure a share in the sales. The market for lower-grade and low-priced devices is flooded by European manufacturers against which competition is practically impossible. Several occasions have been noted where garages originally ordered cheap Austrian and German equipment which had to be scrapped, and replaced it by an American product. There is a demand for a high-quality high-pressure grease gun, operated by a hand lever, with a capacity of approximately 40 pounds, which so far has apparently not yet been filled by American exporters. Grease guns in general find a fair market which, however, is said to be declining in view of English, French, and German competition. The market for oil-dispensing pumps and oil guns is small but growing.

American paint-spraying equipment leads in this market against very heavy German competition; polishing machines and portable drills are sold in small quantities, and the trade does not believe that the volume of sales is likely to materially increase in the near future. American tire-repairing outfits for garages were formerly sold in Austria, but have lost much ground due to competition from Germany, Czechoslovakia, and a new Swiss concern. American small vulcanizing outfits for tubes are sold in quantities, and this business is likely to continue, the main competitors being German and French concerns. American valve grinders are sold in fair quantities, and foreign competition is not much felt. Prices of American products, however, are high for local conditions and limit the scope of the market.

Towing and salvaging equipment has been sold in small quantities, but sales are not likely to increase due to the narrowness of the local market, which is quickly saturated, and to German and Austrian competition. In a number of cases local garages have manufactured such devices for their own use in their workshops during the quiet season.

Welding outfits are manufactured locally and also imported from Germany. According to trade opinions American wrenches can not be sold in the face of local and German competition. Wheel alignment equipment may find a market in the future in connection with

the growing trend toward the use of wire wheels, with which only de luxe cars are equipped in Austria at the present time.

The greater portion of sales in this line is handled by a few firms in Vienna, one of which specializes exclusively in garage equipment. The two most important firms carry a fairly extensive line of American equipment and in most cases are in a position to successfully compete with European lines on a quality basis, because in this special type of products, the quality of American makes is manifestly superior to European goods. Local distributors of American garage equipment are therefore in a position to adhere to a fairly reasonable credit policy, namely three to six months. German and Austrian manufacturers, on the other hand, have to extend credit of from 6 to 9 months, and in extreme cases 12 months. Terms granted by American manufacturers of high-quality merchandise to local distributors need not exceed six months, and in many cases 90 days will be accepted by the local firm.

The logical center of distribution is Vienna, and the best method of selling American garage equipment is through one of the local jobbers, who also maintain stocks on their premises. In planning sales campaigns it should not be overlooked that the extent of this market, although growing, is still small and that at the present time considerable sales resistance, due to financial reasons and conservative habits, has to be overcome.

### AZORES AND MADEIRA ISLANDS

**Replacement Parts Market of the Azores Shows Steady Increase—Accessories Demand Limited—Service Stations of Primitive Nature—American Replacement Parts Lead in the Madeira Islands as Do Accessories and Garage Equipment**

#### AZORES

Vice Consul Charles E. Worman, St. Michael's

Motor-vehicle registrations as of January 1, 1931: 556 passenger cars, 52 busses, 39 trucks, and 69 motor cycles.

#### REPLACEMENT PARTS

The growth of the market in the Azores for replacement parts showed a steady increase until 1930, at which time a decline was noted owing to unfavorable business conditions and the greatly diminished tourist traffic. Increased demands are expected for the years 1931 and 1932 as the number of motor vehicles in use has improved considerably during the past several years.

It is estimated that approximately 95 per cent of the replacement parts used in the Azores are imported from the United States, although 15 per cent of the motor vehicles in operation are of foreign manufacture. Many American-made parts, however, such as brake linings, spark plugs, fan belts, and springs are readily adaptable for use on vehicles of other origin. The items most in demand include fan belts, spark plugs, springs, valves, radiator caps, pistons, piston pins, pinions, drive shafts, steering wheels, generators for starting and lighting, brake lining, and body upholstery materials.

Long credits are not offered to distributors and dealers by either American or foreign suppliers. Cash payment with order is usually required, although arrangements such as cash against presentation of shipping documents, or part cash with order and part against shipping documents, are occasionally accepted. Replacement parts of American manufacture meet with little competition as there is no local production, and parts of foreign origin are not readily adaptable to the requirements of the market.

Ponta Delgada, St. Michael's, is the leading distributing center as well as the largest consumer of replacement parts in the Azores.

#### ACCESSORIES

The present demand for automobile accessories is extremely limited and it is not believed that the market will increase to any great extent. Cars are imported equipped with the necessary accessories and owners do not have the finances to expend on novelties. It is estimated that about 65 per cent of the accessories are of American origin, while France supplies the greater part of the remainder.

The items which are in demand include lamp lenses, horns, both bulb and electric, jacks, lamps, luggage carriers, mirrors, tire pumps, and windshield visors. The only accessories of domestic origin are bulb horns and rubber matting.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Service stations and the garages in the Azores, if they can be so classified, are primitive and very poorly equipped. Special machinery designed exclusively for the repair of motor vehicles is unknown, and precision instruments are rarely employed. Properly trained mechanics are not available, employers being dependent on former chauffeurs with some mechanical experience.

Although electric current is cheap and readily available, a few lathes, planes, and drills are the only power-driven tools employed. These, as well as nearly all hand tools, are of French or British origin. The liberal payment terms granted by French suppliers greatly attract local importers, while shipping facilities and low freight rates between European ports and the Azores, together with the willingness of continental exporters to accept orders for small quantities, are obstacles which American manufacturers would have to overcome. Gasoline pumps operated by oil companies in the villages and towns throughout the islands are nearly all of French origin, although several pumps of American make have been installed. The few air compressors in use were supplied from France. There is no garage or service-station equipment produced locally, nor is it probable that such products will be manufactured in the near future.

Auto lifts, cylinder-boring machines, special tables to handle motors and other heavy parts, special jacks, and precision instruments are especially needed, but it is doubtful if any firm could be persuaded to purchase such equipment at the present time, in view of the existing business depression which has made the collection of repair bills exceedingly difficult, and high taxes which are imposed on garages and service stations. Hand tools only are employed in changing tires.

Although market conditions are not favorable at the present time, the local garage owners realize the necessity for well-equipped repair stations and there is reason to believe that American products may share this field after business conditions return to normal.

### MADEIRA ISLANDS

Consul J. F. Huddleston, Funchal

Motor-vehicle registrations as of January 1, 1931: 735 passenger cars, 140 busses, 80 trucks, and 20 motor cycles.

#### REPLACEMENT PARTS

In the Madeira Islands such articles as spark plugs, brake lining, and fan belts have a fair sale and are obtained from accessories stores. Bearings, timing chains, springs, valves and pistons, forgings, pinions, drive shafts, frames, and such parts are bought through the dealer handling the car for which the parts are required. No parts are manufactured locally. American parts are well and favorably known and lead in this market. There is considerable competition from French and British spark plugs and brake lining. Funchal is the distributing center for the island, and most of the automotive vehicles are located here or near by.

Automobile dealers in good standing have recently been offered cars and parts with credit facilities of 60 days. Formerly both cars and parts were sold on a cash basis. Care should be taken about extending credit to any but the larger firms in Funchal at the present time.

#### ACCESSORIES

There is a fairly even demand for new accessories and novelties, with the American products leading in sales. A steady demand exists for such items as bulb horns, bumpers, rear-view mirrors, tire gauges, flower vases, and novelties. On account of the mild climate there is no requirement for radiator shutters and shields, hood and radiator covers, car heaters, and other cold-climate attachments. A small demand exists for body hoists, tire chains, and glare eliminators.

Dealers buy accessories direct from manufacturers and exporters, and dealers carry small stock. Credit facilities of from 30 to 60 days are requested on important orders, while small shipments are paid for in cash.

No accessories are manufactured locally, but French, German, and English manufacturers have introduced many of their products into this market. Car owners equip their automobiles with bulb hand horns, which are all of French, English, or German make.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Service facilities are few and are offered by three or four small and poorly equipped garages run by mechanics. There is little equipment in use, but what is now employed is principally of American manufacture. No equipment is manufactured locally.

Regarding advertising methods and media, the three daily papers, the *Diario de Noticias* (claimed circulation 5,700 copies daily), *Dairio da Madeira* (claimed circulation 2,500 copies daily), and *O Jornal* (claimed circulation 1,500 copies daily) are the preferred media for advertising. Billboards and posters are not used to any great extent.

### BELGIUM AND LUXEMBURG

#### Replacement Parts Market Steadily Expanding—Accessories Business Depressed—Steady Upward Trend in Sales of Garage and Service-Station Equipment

Assistant Commercial Attaché Leigh W. Hunt, Brussels

Motor-vehicle registration as of January 1, 1931: 102,319 passenger cars, 1,461 busses, 65,206 trucks, and 45,000 motor cycles.

### BELGIUM

#### REPLACEMENT PARTS

The Belgian market for replacement parts has been steadily expanding as the use of the automobile has become more general. About 60 per cent of the cars sold in Belgium are of American origin, and approximately 80 per cent of the replacement parts for these cars come from the United States.

The parts most in demand, in order of importance, are: Piston rings, piston pins, pistons, clutch facing and brake lining, gears and pinions, bolts, valves, rims and rim parts, fan belts, plain bearings, bushings, and drive shafts.

Competition for American parts is almost entirely on the basis of price. Attempts have been made to introduce some locally made products, and France, Switzerland, and Italy have also attempted to place certain lines on this market to sell from 15 to 20 per cent under American prices, but the American products are very popular and are still in greatest demand.

Sales of replacement parts are made through factory representatives, working on a commission basis and selling to jobbers, who, in turn, sell to garages; through exclusive distributors appointed by the manufacturer, and who sell to jobbers working the garage trade; or direct by automobile manufacturers who use their automobile distributors for the distribution of replacement parts. The latter method is growing rapidly in importance.

Commission merchants (factory representatives) require a commission of 10 per cent on replacement parts. The jobber sells on a basis of retail price less 25 per cent, less 20 per cent. The 25 per cent represents the dealer's profit. Manufacturers offer their local representatives from 30 to 90 days' credit, largely depending on the reputation of the local firm.

The tendency of American automobile manufacturers to insist that their distributors use original parts only, strictly limits the sale of imitation parts, either of American or foreign origin. As this tendency seems to be on the increase, it is still quite possible that the volume of American business will attain still larger proportions in the future.

Belgian dealers in parts usually depend entirely on personal contact of their salesmen for obtaining business, and they largely neglect advertising. An advertising use of the automobile trade journals would undoubtedly strengthen the American position on the market, but no effort in this direction has been made up to the present time.

#### ACCESSORIES

The outlook for increasing the sale of automobile accessories is not considered bright. The complete equipment now included on practically all cars, European as well as American, renders their sale very difficult. Practically the only accessories in good demand are radiator covers, headlights, and trunks, all of which are manufactured locally, and American firms get very little of this business. The local firm of headlight manufacturers turns out a very satisfactory product, and Belgian proprietors of American cars frequently replace the standard American headlight with the domestic product.

Belgian accessories are usually marketed direct by the manufacturer through wholesalers and even occasionally direct to retailers. American, German, French, and British accessories are usually placed in the hands of dealers who market their products by selling direct to garages and automobile distributors. As indicated above, however, the accessory business has been declining rapidly, and most of the accessory dealers in Belgium are directing their efforts more and more toward the garage-equipment trade.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Steady progress has been realized during the past six years in providing adequate automobile service facilities in Belgium, particularly in the larger cities. However, in the smaller garages, equipment is largely limited to mechanical jacks, battery chargers, and the more common tools in constant use. Brake-testing machines are practically unknown, even in the larger establishments, while air compressors, car washers, high-pressure chassis-lubricating systems, etc., are seen only in the most up-to-date establishments in Brussels and Antwerp. There is a shortage of properly trained mechanics as there are no schools for practical training purposes, and the labor employed by service stations is largely composed of men who have picked up the trade through practical experience. However, this situation is constantly improving, and the service obtained in the better-class Belgian garages may be rated from fair to good.

American equipment has been very successfully marketed, and it accounts for approximately 60 to 80 per cent of the garage and service-station apparatus now in use. Domestic competition is very small, but the sale of German products is growing rapidly, particularly with regard to such articles as garage jacks and air compressors. The German products are sold in Belgium at approximately 25 per cent below American prices. Ability to effect deliveries on short notice is also of decided advantage to the German manufacturers. Owing to the nearness of the market to Germany, the German manufacturers can send engineers to Belgium to demonstrate the operation of more complicated machinery.

All Belgian garages, even in the smaller country towns, are equipped with electricity. The usual current is 110 or 220 volts, either alternating or direct, but 130 and 240 volt currents are also used. The better-equipped garages are almost all owned by automobile dealers.

The best selling terms on the Belgian market are considered to be 90 days against documents. Quotations should be c. i. f. whenever possible, though f. o. b. quotations are no real obstacle to business. With the growing German competition, 90 days' credit is becoming practically a necessity in order to keep local dealers interested in American products.

Brussels is the outstanding center of distribution for garage equipment, with Antwerp playing a secondary rôle, while other important Belgian cities are never used as distribution centers. In the absence of direct traveling representatives, the best practice for reaching the market is considered to be through a large wholesaler who buys outright and confines his activity to Belgium only. A considerable amount of business is also done through manufacturers' agents, who maintain traveling salesmen throughout all or part of Europe and do their selling through jobbers. This method of doing business, however, is sometimes criticized locally, as it results in a slightly higher retail price than would be necessary if the market were operated direct through a local wholesaler. There is a growing recognition of the need for better and more modern service in garages. The automobile-buying public is demanding more rapid and efficient service from dealers, and the dealers are responding by putting in the necessary equipment. There still remains a great deal to be done in this field, and sales may be expected to show continued progress in the next few years.

## LUXEMBURG

Vice Consul Frederick L. Washbourne, Luxembourg

Motor-vehicle registrations as of January 1, 1931: 5,965 passenger cars, 125 busses, 2,801 trucks, and 2,341 motor cycles.

### REPLACEMENT PARTS

In considering Luxembourg as a market for American parts, accessories, and garage equipment, it must at all times be remembered that Luxembourg is not a wholesale or distributing center, owing to geographical location, and that, due to the 50-year Luxembourg-Belgian Economic Union, dated May 1, 1922, there are no separate import statistics. All imports destined for Luxembourg are included in statistics for Belgium.

Estimates show that 65 per cent of the automobiles licensed in the Grand Duchy are of American origin, and with the increased number of American cars and trucks in operation, there has been developed a good market for American parts, which are supplied almost entirely from stocks on hand in or near Antwerp, where the European factories of American cars are located.

The greatest demand for replacement parts includes brake lining, spark plugs, springs, and valves. As already stated, American parts are sold mostly for American cars, and competitive gain is certainly

being made by United States manufacturers against all others in spite of generally more liberal terms of credit extended by European manufacturers.

Owing to the precarious state of the credit situation existing in the entire automobile trade in Luxemburg, credit terms have been shortened to cash or 30 days acceptance in most cases. Up to the summer of 1930, American replacement parts were sold mostly on a cash basis or 30 to 60 days acceptance, while the European manufacturers gave open credit of 90 days or longer.

All local agents maintain more or less attractive show rooms; newspaper advertising and direct mailing circulars are the most effective advertising media for Luxemburg.

#### ACCESSORIES

Luxemburg is a conservative market with price as a factor, and as accessories are not as essential as replacement parts, this classification has not shown as much activity, although there is unquestionably a slow increase in this trade.

Accessories most in demand are bumpers, chains, glare eliminators, luggage carriers, mirrors, shock absorbers, tire gauges, and seat covers. There is no domestic manufacturer of accessories, and American products seem to be slowly making headway against all other competition.

Accessories stocks are always small and are found on hand at local car dealers, garages, and dealers in accessories. Competitive sample lines of American and European products are invariably carried. Terms on accessories are the same as for parts.

#### GARAGE AND SERVICE-STATION EQUIPMENT

This field offers the greatest possibilities for American products, for, outside of the well-equipped service stations maintained by four well-known American car agents, the balance, as a rule, are poorly equipped, poorly lighted, and entirely inadequate. The four service stations mentioned are up to date and have modern American equipment. All others employ very few American products; most of the service equipment and tools in use are of German, Belgian, or French make.

A general line of garage and shop equipment should be made available. The absence is noted of everything modern, such as car washers, auto lifts, brake-testing machines, cranes, tools, towing and salvaging equipment, paint-spraying machines, wheel-alignment devices, etc. The principal reason for restricting the use of modern appliances is the belief in hand labor and lack of demand for speed and promptness in repairs. Electric current is generally available though still relatively expensive. Mechanical rim tools are generally employed in changing tires.

Experienced mechanics are available and earn from \$40 to \$50 per month, but none could compete with the standard one day's work of an American mechanic. All local automobile agents operate a garage both for storage and repairs, but there are many public garages owing to the fact that most private houses have no garage.



The best method of selling equipment in Luxemburg is through a large wholesaler or jobber or manufacturer's agent, provided a stock is carried in Antwerp or Brussels. Care should be taken to connect with a firm whose salesmen visit the trade in Luxemburg.

As there is a 50-year economic union between Luxemburg and Belgium, Belgium is the logical point of supply for Luxemburg; there are no customs barriers between the nations.

At the present time the entire automobile trade is in very bad condition, owing to overextended credit out of proportion to capital invested and almost complete failure to make collections of money long overdue. For the present, great care should be shown in any credit extended. Under normal conditions buyers expect and do receive long-term credit from European manufacturers.

### BULGARIA

**Replacement-Parts Market Steady, Accessories Increasing, Service Appliances Small—American Products Account for Less Than 50 Per Cent of the Market Demand**

Consul Thomas F. Sherman, Sofia

Registration of motor vehicles as of January 1, 1931: 2,524 passenger cars, 645 busses, 318 trucks, 583 motor cycles.

#### REPLACEMENT PARTS

The continuous increase in the number of automobile registrations in Bulgaria creates a steady demand for replacement parts, which are supplied chiefly by the United States, Italy, England, Germany, and France, with the American share approximately 25 per cent of the total.

Parts most in demand include brake linings, gears, ball and roller bearings, spark plugs, springs, pistons, piston rings, and body hardware, as well as upholstery material and generators for starting and lighting, with plenty of foreign competition on all of these items except the first two named. Local competition is limited to bolts, low-quality springs, radiator caps, and body-upholstery material, which material is cheaper than the imported fabric.

Germany is the chief competitor in the Bulgarian market for replacement parts, owing to the proximity of the market, low prices, and more liberal credit terms offered by German manufacturers.

There are no special requirements to be considered in increasing the American trade. The efficiency of the article, together with low prices are the primary factors to be considered. It is preferable also that correspondence with firms writing in French or German language be answered in the same appropriate language.

American firms usually require either cash against shipping documents or the establishment of a New York credit, while foreign firms will usually ship on a two to six months' credit basis. In view of the present financial and economic crisis in Bulgaria, it is advisable that business with new firms be conducted only on cash or a direct bank guaranty basis.

## ACCESSORIES

The demand for accessories is gradually increasing, and American participation amounts to about 40 per cent of the total imports.

The items most in demand include bulb horns, tire pumps, hand jacks, bumpers, nonskid chains, shock absorbers, luggage carriers, rear-view mirrors, and headlights. The strongest competition to American products comes from Germany, France, and Italy. There is a certain amount of local competition on items such as nonskid chains, luggage carriers and trunk racks, radiator and tire covers, wind-shield visors and wings, seat covers, and other small items which can be manufactured locally.

Accessories are usually sold by dealers specializing in spare parts and accessories and imported either by wholesalers or by commission agents selling direct to retailers. Larger stocks are kept by wholesalers only. Competitive lines are handled by the same dealers in order to have a variety of items which will appeal to the purchaser either on the quality or price basis.

The best method of coverage is through commission agents selling direct to the retailers, although marketing through exclusive distributors purchasing for their own account has its advantages.

The usual credit terms run from two to six months. Only a few firms purchase outright for their own account.

## GARAGE AND SERVICE-STATION EQUIPMENT

Automotive service facilities are considered primitive as compared with those used in the United States. There are a large number of small garages, but only a few employ properly trained mechanics, although some progress has been made in securing better trained men and using more up-to-date equipment during the past few years. Owing to the lack of large garages there is almost no market as yet for most types of garage and service-station equipment such as is used in America. The American items supplied in this market are limited to hand jacks, paint-spraying equipment, tire vulcanizers, wrenches, and garage tools, such as portable drills, valve grinders, and cylinder borers. Products from Germany, France, and Italy are more favored, due to their proximity to the market and more lenient credit facilities. There is no local manufacture of this type of equipment.

Germany is the chief competitor, especially in paint-spraying equipment, battery chargers, garage tools, welding outfits, valve grinders, and cylinder-boring machines. The use of mechanical equipment is limited to districts where electric current is available and to large garages. The price of electric energy for industrial use ranges from 1.5 to 6 leva per kilowatt-hour.

Most automobile dealers maintain their own garages for repairs and body building. In addition to these there are also many private garages throughout the country.

At the present time the following terms are recommended for use in this market: Cash against shipping documents, cash against delivery of the merchandise, or three to six months' credit against a first-class bank guaranty.

The main distributing center for garage and service-station equipment is Sofia, the capital. The best method of distribution would be a direct American traveling representative or a local commission agent soliciting orders for the American manufacturer or exporter. While some of the items of garage equipment are kept in stock by local wholesalers, many items, such as hydraulic jacks, auto lifts, air compressors, brake-testing machines, pressure car washers, cranes, etc., are supplied only on special order.

In view of the prevailing economic depression in the country and the small number of automobiles registered in Bulgaria, the market for modern service and garage equipment appears to be restricted to the larger garages in the urban centers at present. A potential future market exists for service and garage equipment.

## CYPRUS

Automotive Trade Commissioner Ralph F. Chesbrough, Cairo, Egypt

Total automotive registrations as of January 1, 1931: Passenger cars, 1,558; motor cycles, 298.

About 87 per cent of all vehicles circulating on the island of Cyprus are of American or Canadian manufacture; about 70 per cent of the total are cars and trucks of two popular low-priced American makes. There are no busses in Cyprus, and not more than a dozen vehicles valued above \$1,800.

There are 12 dealers and distributors handling automotive products, but only three firms specialize in accessories, replacement parts, and garage and service equipment alone.

### REPLACEMENT PARTS

Replacement parts comprise about 75 per cent of imports of the three classes of products mentioned in this survey, and American participation in this trade is at least three-fourths of the total, the balance representing parts for European makes and a small percentage of "nongenuine" parts for two low-priced makes of American cars and trucks. These "imitation" parts are imported from Europe, mostly from Italy.

Almost all parts are salable in Cyprus, but naturally in small quantities. The "nongenuine" parts for the two popular makes of American automobiles usually sell for about 30 per cent under American prices, but their quality is greatly inferior to the American product, and their competition is not believed to be serious.

Batteries, brake linings, carburetors, bearings, spark plugs, and fan belts are the items in which European competition has the greatest share of the total.

The leading distribution centers for the sale of all types of automotive equipment are Nicosia, the capital, and the ports of Limassol and Larnaca. Firms with headquarters in one of these three cities have subagencies or branches in the other two centers, as well as in other cities on the island.

### ACCESSORIES

The United States has the greatest share of the accessory trade, which is relatively small, as the great majority of automobiles on

the island are operated for hire and their owners can not afford to spend money on them except for items of actual necessity. Accessories are marketed both by automotive dealers and the three firms previously mentioned. There are two commission agents with headquarters in Egypt representing American manufacturers and exporters of replacement parts, accessories, and garage equipment who occasionally make trips to Cyprus and sell their lines.

There is little demand in Cyprus for luggage carriers, taximeters, nonskid chains, radiator covers, wind-shield cleaners, theft-proof locks, or novelties, and no demand at all for car heaters. A market for seat covers could be developed.

#### GARAGE AND SERVICE-STATION EQUIPMENT

With the exception of the distributors of two well-known American lines of cars and trucks, there are few proper service facilities in Cyprus. Owing to the low purchasing power of the population and very cheap labor, the sale of garage and service-station equipment has made very little headway. It is estimated that imports of this equipment do not amount to more than \$2,500 to \$3,000 yearly.

Electrical current is generally available in the above-mentioned distribution centers for use on an economical basis by garages and service stations.

Among the items of garage equipment the following are those mostly sold and in demand in Cyprus: Air compressors, battery chargers, garage tools, oil and grease guns, paint-spraying equipment, and wrenches.

#### CZECHOSLOVAKIA

**Czechoslovakia Presents a Steady Market for Replacement Parts, with Accessories in Increasing Demand and a Promising Outlook for the Sale of Service Appliances—American Garage Equipment Predominates—Heavy Competition from European Firms and the Domestic Industry Characterizes the Parts and Accessory Trade**

Assistant Trade Commissioner Sam E. Woods, Prague

Registration of motor vehicles as of January 1, 1931: 53,000 passenger cars, 3,000 busses, 23,000 trucks, 37,000 motor cycles.

#### REPLACEMENT PARTS

The market for replacement parts has heretofore developed as the registration of motor vehicles increased. However, as a result of the present good-roads program and as the number of trained mechanics increases it is not thought that this market will expand as rapidly as in previous years or keep pace with the increased registration of motor vehicles.

However, the fact that about 70 per cent of the passenger cars and trucks in this country are driven by chauffeurs, the majority of whom are poorly trained, tends to increase the demand for parts. Other factors to be considered include the now unsatisfactory condition of the roads and the extraordinary length of time automobiles and trucks are kept in service before being junked.

It is generally acknowledged that the motors of American cars stand up much better than those of domestic or European manufacture and require fewer replacement parts. On the other hand, it is stated in Czechoslovakia that bodies, springs, and axles of American cars are especially badly affected by the rough roads of the country.

There is a constant and steady demand for such lines as axles, plain, ball, or roller bearings, bolts, bushings, brake linings, clutch facings, springs, steering-wheel gears, body hardware, batteries, rims, and the like. Pistons, piston rings and pins, valves, gears, pinions, drive shafts, driving and timing chains, as well as fan belts, must also be replaced more frequently than is the case in the United States. Starting and lighting apparatus, as well as other electrical equipment, must be constantly replaced. Spark plugs also have a very short life. The increasing manufacture of bodies in Czechoslovakia is extending the sale of such fittings and upholstering materials as beadings, tassels, window shades, carpets, and hardware, including hinges, locks, brass and aluminum moldings, window glass, and springs.

Locally made bearings, bolts, bushings, radiator caps, stampings, forgings, body hardware, and upholstering materials dominate the market, and few of these articles are imported except for cars and trucks of foreign origin. High freight rates and duties make it almost impossible to compete with articles of domestic manufacture, especially in the field of heavier articles. Brake linings, clutch facings, rims, wheels, fan belts, spark plugs, pistons, piston rings and pins, gears, springs, generators, and starting and lighting equipment are all manufactured locally. However, large quantities are imported from the United States, Germany, France, Switzerland, England, and Austria.

While none of the local automobile manufacturers import engines, several of them import parts for engines. All local manufacturers depend on foreign manufacturers for pistons made of special alloys. Carburetors, magnetos, distributors, starters, and spark plugs are also imported.

All the local factories except Skoda use imported axles on some models, and the Praga, Wkov, and Walter factories import some of their chassis frames. Springs, wheels, and rims are also imported in considerable quantities by local factories. On the whole, American products are holding their own and, while competition will increase, there is no indication that this will affect the demand for American goods.

#### ACCESSORIES

The market for automobile accessories in Czechoslovakia is expanding each year in proportion to the growth in automobile registrations, and while the market for accessories will not average as much per car as in the United States there is an increasing tendency on the part of local car owners as well as factories to provide their cars with complete equipment. As the majority of the passenger cars and trucks are driven by chauffeurs and not by owners, there is but a small market for labor-saving devices such as high-grade tire pumps, jacks, lubricating devices, tire irons, glare eliminators, tools,

and windshield visors. Hand-operated horns are fairly popular, but Czechoslovak car owners like electrical horns, and the larger and louder the horn the better. Traffic conditions in the city streets are most difficult, and therefore the frequent use of a horn is absolutely necessary. Direction indicators are not required by law as in some countries, yet fully 90 per cent of Czechoslovak cars are equipped with them.

Radiator ornaments are in vogue, but those of elaborate design are giving way to simple nickel-plated caps. Chains are a necessity, especially during the winter months, while the use of luggage carriers, trunk racks, windshield wipers, shock absorbers, and covers for hood, radiator, and tires is increasing. Items popular among the owners of higher-priced cars include luxuries such as cigarette lighters, ash trays, vases, vanity cases, inside lights, and clocks. There is an extremely small demand for windshield wings, seat covers, theft-proof locks, fire extinguishers, special lubricating systems, and car heaters.

Several local factories produce automobile accessories, and once a demand is established for an article some local factory will produce a substitute at a price lower than that of the imported article. A high duty rate makes it almost impossible to import nickel or silver plated accessories, especially if they are heavy. Bumpers, chains, covers of all kinds, horns, luggage carriers and trunks, mirrors, tire pumps, speedometers, taximeters, windshield wings, as well as all kinds of ornaments and novelties, are produced locally and usually retail at a lower price than the wholesale price of an imported article. The majority of the electric horns, lenses, lights, tire gauges, windshield cleaners, and polishes are imported from the United States, Germany, France, England, Switzerland, and Austria. The greater part of the imports of electrical equipment and lenses is from Germany, while the United States supplies the greatest amount of the other imported lines, with Germany and France following.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Of the estimated 1,200 repair shops in Czechoslovakia, only a few employ well-trained mechanics or have modern garage equipment. Automobile dealers generally operate garages in connection with their agencies and usually have the best-trained mechanics and the most modern equipment in use in the country. The factors limiting the use of mechanical equipment in this market are lack of capital, low-price labor, and the limited number of cars in use. The United States furnishes practically all the auto lifts, cylinder-boring machines, cranes, oil and grease guns, portable drills, reamers, valve grinders, machine tool and power equipment used, and also competes with Germany in supplying air compressors, paint-spraying equipment and high-pressure chassis-lubricating systems, and grease-dispensing systems. With local and German firms it supplies cranes, wrenches, and garage tools. Tire-repairing machines, welding outfits, mechanical jacks, and salvaging equipment are manufactured locally, and few are imported. Battery chargers are also produced locally, but German manufacturers are competitors with local firms in this field. Wheel-alignment equipment, car washers, brake-testing

machines, and polishing machines are practically unknown. Electrical current is available to practically all the garages in Czechoslovakia. Hand tools are generally used in changing tires, and as only the larger centers have tire repairing and vulcanizing shops, most of this work is done on the outside by chauffeurs or owners.

American products dominate the field in garage equipment, but the continuation of this condition will depend largely on the attention which American manufacturers give to this market, as German competition and French to a much less extent is already beginning to be felt.

The number of filling stations in Czechoslovakia has increased from 900 in 1927 to 5,200 at the end of 1930, of which about 1,500 are equipped with portable pumps. Only two of the filling stations in the country are comparable to American standards. The others are operated in connection with garages or are simply curb pumps without roofs. About 1,000 of the total number have air pumps and facilities for furnishing free air. Only the stations in connection with garages provide water for radiators or batteries. Oil pumps are not in general use, as oil is usually retailed in tins. All gasoline pumps are hand operated.

American gasoline pumps have not kept pace with the Austrian and French makes, mainly for the reason that American manufacturers were unable to supply visible pumps, the demand for which is increasing. About 30 per cent of all pumps installed are of this type. Gasoline pumps offered for sale in Czechoslovakia must be graduated in liters and must be approved by the Bureau of Weights and Standards.

#### DISTRIBUTION METHODS FOR AUTOMOTIVE PRODUCTS

As replacement parts in most cases are "genuine," they are purchased direct from the car manufacturer and are distributed through the agency handling the car for which they are intended to be used. There are no stores in Czechoslovakia which handle automobile accessories and garage equipment exclusively. Neither are accessories sold through filling stations, as is done in the United States. They are generally retailed through automobile dealers, hardware stores, and the largest garages, which carry limited stocks of the most popular items. The retailers purchase their stocks through commission agents from the manufacturers or from wholesalers, who usually do not handle competing lines. The commission agent carries no stocks but sells from catalogues or samples. He passes the orders taken on to the manufacturer and receives commissions on his sales varying from 5 to 10 per cent, depending on the line. The wholesaler carries stocks which are usually purchased for his own account and employs traveling salesmen to visit the retailers regularly.

Domestic and German manufacturers of parts, accessories, and garage equipment are more liberal than American manufacturers in granting credits. Local manufacturers extend credit on open account for six months without interest and in many cases longer. German producers sell on open account and grant credits for three months without interest, while American firms usually sell cash against documents in New York.

There are several automobile journals published in Czechoslovakia that might be considered for advertising accessories and garage equipment. As a rule, however, direct advertising is not as effective as in America, and an extensive program should not be undertaken without the advice or approval of the local agent. A wide distribution of well-illustrated catalogues and descriptive literature (in the Czech and German language) to consumers and small retailers will help to develop a market for a new product.

The American manufacturer who backs up his dealer with sales promotion efforts, an educational campaign, and encouragement to adopt the practices that have been found to be successful in developing the American market for his product will find that his dealer will have a direct advantage over the agent of the manufacturer who fails to do this. In this way, price competition, which is the chief obstacle to the development of the market for American goods, can be partially offset. American products are more than able to hold their own in the matter of quality.

The keenest competition which American automobile accessories and garage equipment must face in Czechoslovakia is from German goods, which are coming into the country in increasing quantities and can be purchased at prices below American quotations. Accessories of French, Swiss, English, Austrian, and Italian makes are also being imported and sold at retail prices considerably below those of similar American products. Apart from granting larger credit terms, the ability of European manufacturers to assure prompt deliveries places them in an advantageous position, and thus if price and quality are the same, preference is usually given the European product.

## DANZIG

American Consul C. Warwick Perkins, Free City of Danzig

Motor-vehicle registrations as of January 1, 1931: 1,165 passenger cars, 52 busses, 693 trucks, and 1,000 motor cycles.

The Free City of Danzig, with an area of about 750 square miles, has a population of 407,629, according to the census of 1929. Danzig is a principal port for Polish imports, and is included within the Polish customs frontier. The present business depression has seriously affected the automobile trade. Not only has it reduced the number of cars sold, but it has also partially disrupted the channels of distribution by forcing a number of firms out of business. The distribution of replacement parts has therefore suffered more than that of accessories or service-station equipment. As Danzig is predominately German in population, it is natural that the buyer, offered two fairly similar articles at about the same price, will as a rule choose the German product. The German manufacturer of parts and accessories also has the advantage of proximity and closer contact with the market. His principal disadvantage is the inclusion of the Free City within the Polish customs frontier. Metal parts manufactured in the United States enjoy a reduction of import duties of somewhat more than 50 per cent, which is not granted to German parts, and American accessories have a similar advantage in many cases.



## REPLACEMENT PARTS

Until the existing depression set in the demand for replacement parts was steadily expanding within the natural limitations of the market, with a very marked trend toward distribution through the automobile dealers. In view of the strong position of the American car it was decidedly favorable to the sale of American parts.

The parts most in demand include bolts, bushings, brake lining, piston rings, piston pins, and body hardware, and these parts as well as semifinished pistons are carried in stock by the few larger repair shops.

American exporters have most of the trade in spark plugs and starting and lighting equipment, also do a fair amount of business in brake lining. Other items are imported principally from Germany, or in a few cases are made locally or in Poland. Bearings, bushings, valves, pistons (semifinished), piston pins, piston rings, and body hardware are all largely of German origin; while radiators, bolts, springs, and forgings are made locally and also imported from Germany. Upholstery material is Polish.

There are in Danzig no wholesalers specializing in and carrying a complete line of replacement parts. Bearings are handled by firms dealing in machinery and hardware, bolts, and bushings by the same type of firm; brake lining, spark plugs, piston rings and pins, and lighting and starting equipment by accessory wholesalers; springs and body hardware by the hardware importers.

Because the market is small the problem of obtaining proper distribution presents some difficulties. The most satisfactory distributors, for any item which they will handle, are the accessory wholesalers; there are three of these firms, of which two maintain retail departments as well. If these houses are already selling a competing article, consideration might be given to the importers who do a combined wholesale and retail business in machinery, hardware, and miscellaneous technical supplies, including fittings, tools, certain machinery, belting, oils and greases, rubber, asbestos, and the like.

It would also be practicable to assign the Free City to a distributor in Germany if he can and will work the territory properly, and can make deliveries from a transit stock; or Danzig could also be given to a representative in Poland.

There is apparently no field for an indent agent doing business direct with the automobile dealers, accessory retailers, and repair shops, as these firms will not carry adequate stocks; and the market is too small to justify the intervention of an agent between manufacturer and wholesaler.

The usual terms granted good credit risks by European manufacturers appear to be 90 days' open credit, with a discount for cash within 30 days. A good many manufacturers are said to be willing, if necessary, to accord even longer terms. A few of the largest importers are understood to be receiving similar terms from American manufacturers, but it is claimed that in general American exporters are not so liberal with credit as their German competitors.

German manufacturers are well established in the Free City because Danzig was, until after the war, a part of their domestic market, and old business connections and orientations have largely been

maintained. An American exporter desiring to enter this field must offer an article of good quality, but he must also meet price competition; Danzig buys carefully, but it is not a cheap market.

No trade journals or magazines of any kind are published in Danzig, but German publications are widely read. Only one newspaper, with a daily circulation of approximately 50,000, is of any importance as an advertising medium. Direct mail publicity, which is not expensive, would probably be most effective. Material for this purpose should be printed locally, as the import duty on printed matter is high. Unless the manufacturer contributes in some way to publicity costs, little or no advertising of a particular article will be undertaken.

#### ACCESSORIES

The average automobile in Danzig does not carry as many accessories as is the case in the United States, although the demand was fairly good and was increasing until the business depression set in. The American share of the trade, however, has always been small. Imports are being made principally from Germany, with some cheap and inferior articles coming also from France and Belgium.

The accessories which are most in demand are bulb horns, stop and parking lights, tire pumps, hand jacks, and rear-view mirrors. A particularly popular item is a turn indicator, which consists of a small electrically operated and lighted drum affixed to the windshield, and showing a black arrow on a red background. There is a fair demand for bumpers, speedometers, taximeters, tire gauges, and electric wind-shield wipers. Sales of body hoists, nonskid chains, hood and tire covers, theft-proof locks, radiator shutters and shields, shock absorbers, wind-shield visors and wings, heaters, and novelties are comparatively small. The few baggage carriers and seat covers in use were made locally to order.

French products are imported because they are cheaper and in addition enjoy most-favored-nation treatment, which German manufactures do not; but there is a decided preference for the latter, and for American accessories as well when they are offered at competitive terms and prices.

Accessories are distributed by three wholesalers, two of whom maintain retail departments. These firms supply accessory retailers and automobile dealers, but there is also some direct trade between the manufacturer and the retailer. Accessories are stocked in small quantities by car agencies and repair and service stations, but not by garages.

The wholesalers as a rule handle competitive articles except in the case of a few complete lines, for which they have been granted exclusive rights. In view of the small size of the market, a mutually exclusive arrangement would seem to be desirable if active sales effort is assured.

As the retailers carry only limited stocks, their orders are small, and quick deliveries are essential. The American exporter would therefore do well to confine his sales to the wholesalers and the automobile-assembly plants unless he can ship from a stock in a nearby European country.

Throughout the trade the failure of American accessories to make progress in the Danzig market is unanimously attributed to the unwillingness of manufacturers in the United States to extend credit. It is said that while German exporters will grant 90 days open credit and sometimes more, and French manufacturers 60 days, American sellers almost always ask cash against documents, and as more than a month must elapse from the time of shipment until the goods can be sold in Danzig, the importer can not afford to buy American products. A liberal cash discount will not solve the problem, as bank loans are expensive and difficult to obtain except on a secured basis. In spite of these statements, however, it should be borne in mind that under present conditions a good deal of the business will be offered that is not acceptable except on any terms except cash.

#### GARAGE AND SERVICE-STATION EQUIPMENT

The comparatively small number of automobiles owned in Danzig are scattered over such a wide area that there are few locations at which a public garage can be profitably operated. With two or three exceptions, the 10 garages in the city are all small and offer no service whatever, not even washing and gasoline and oil supply.

The largest garage, located near the center of the city, accommodates slightly less than 100 cars and is used principally by commercial vehicles and passenger cars driven by chauffeurs. This establishment is equipped with air compressors, gasoline pumps, pressure chassis-lubricating system, oil-dispensing pumps, and is building a lift. No garages are owned by automobile dealers or are operated in connection with service and repair shops.

Cars are washed exclusively by hand, and it is not probable that a demand for washing machinery will develop in the near future, as labor is cheap and the number of vehicles to be washed is small. Ample servicing and repair facilities are available, with properly trained mechanics employed. Shops are maintained by three of the leading dealers, and repair service is also offered by an assembly plant and a body builder. One of the largest shops operates a towing and salvage service.

Tire-repairing machines and vulcanizers are operated only by special shops which do most of the tire-repairing work. Battery charging is also done by specialists, as is refinishing as well. All of these establishments have good modern equipment. Tires are changed only with hand tools. Dealers and service stations have air compressors, but most of the filling stations do not offer "free air."

The only articles of equipment made locally are gasoline pumps, which are plentiful and have been supplied almost entirely by one manufacturer. Otherwise almost everything is of German make, the principal exceptions being the equipment of the two assembly plants and one tire-service shop, which is American.

Service-station equipment is sold through manufacturer's agents doing business direct with the user, and this is probably the most satisfactory method of distribution. The market is too small to justify a local house in carrying such articles in stock. Terms should be cash on delivery.

When general business conditions improve and the number of cars in operation begins to increase again, there should be a market in Danzig for garage and service-station equipment, as the existing shops expand and others are established. At the present time most of the shops and garages have as much mechanical equipment as is justified by the volume of business they are now doing, and there is a general unwillingness to invest more money until prospects are more favorable.

### DENMARK

#### Good Demand for Replacement Parts—Accessory Sales Increasing—Realization of the Need for Improved Garage and Service-Station Equipment Gaining

Commercial Attaché Charles E. Spofford, jr., Copenhagen

Motor-vehicle registrations as of January 1, 1931: 80,630 passenger cars, 1,190 busses, 32,000 trucks, and 24,000 motor cycles.

The Kingdom of Denmark, the smallest of the three Scandinavian countries, is the most highly developed in automotive transportation. The demand for maintenance has steadily increased and even surpassed the demand for cars by a considerable margin. Dealers in Denmark are now paying more attention to replacement parts, accessories, servicing equipment, and labor sales than ever before because competition has made it difficult for them to make much profit in selling new and used cars. They now look upon their car business as a means of developing their maintenance business. The trend therefore is for equipment for garages and superservice stations, more complete equipment for independent mechanics and for car dealers themselves.

### REPLACEMENT PARTS

The demand for replacement parts has grown in greater proportion than the registration of motor vehicles, and American suppliers have been successful in securing fully 75 per cent of this trade.

The articles considered as excellent sellers in Denmark include bearings, brake lining, fan belts, spark plugs, pistons, piston pins and rings, gears, pinions, rims and rim parts, and starting and lighting generators. There is also a fair business done in bushings, clutch facings, springs, valves, radiator caps, drive shafts, forgings, stampings, body-upholstery material, steering wheels, and body hardware. The sale of bolts, chains, and auto frames is very limited.

Due to the compact nature of the territory and the limitation of area, manufacturers are able to develop business through the services of one or more agents in Copenhagen. It is just straight merchandising, with the agents obtaining distribution by stock jobbing the car dealers, service stations, and independent mechanics.

It is customary for both American and European suppliers to offer from 30 to 90 days terms, documents against draft acceptance. European and domestic manufacturers have not offered more liberal terms or discounts than American makers, but the introduction of "non-genuine" parts and the practice of price cutting has made for keen competition. Much of this competition is between American suppliers themselves, as they dominate the market in most lines.

Some competition is occasioned from the Swedish S.K.F. bearings as well as from domestic manufacturers of brake lining and spark plugs.

The most effective advertising methods are automotive journals and regular newspapers. Road signs have been used with fair results, but they are becoming costly, due to the higher charges demanded by the farmers.

#### ACCESSORIES

Although more accessories are now sold with cars as standard equipment, the increasing number of motor vehicles in operation, together with replacement requirements, have resulted in an annual increase of accessory business, and American suppliers have been able to hold from 75 to 80 per cent of the trade.

Accessories most in demand include electric horns, hand and mechanical jacks, lamp lenses, all kinds of lights, shock absorbers, speedometers, windshield wings, lubricating systems, and electric direction indicators. There is also a fair demand for nonskid chains, hood and tire covers, bulb horns, luggage carriers, trunk racks, tire gauges, windshield cleaners, and car heaters. The sale of bumpers, glare eliminators, locks, mirrors, tire pumps, seat covers, and windshield visors is very small.

The only serious competition is occasioned by one Danish firm and some German producers. Several other Danish makers have developed a small but growing business in certain lines of accessories, including trunks, bumpers, radiator screens, trunk carriers, windshield wipers, and direction indicators.

Many accessories are marketed through agents or jobbers who stock car dealers, garages, and service stations. Few, if any, exclusive accessory dealers exist, and the indent business is limited. The leading accessory manufacturers and their agents do not permit the handling of competitive lines.

The usual terms are from 30 to 90 days, documents against draft acceptance, and the credit risk is low if good representation is obtained.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There has been some development in the direction of superservice stations in Denmark during the past two or three years, but progress has not been great and adequate service facilities have yet to be provided. The need for adequate service exists, and the motor public wants it, but the establishment of first-class superservice stations meets with two obstacles. The principal one is that the success of a modern station depends upon adequate space and good location, but the rental of proper buildings sites in Copenhagen is almost prohibitive in price because good locations are reserved by the municipal authorities. Copenhagen has an acute shortage of apartment dwellings and the municipal government is attempting to make up the shortage by construction of apartments whenever desirable land is available. The second obstacle is that motor dealers resent the encroachment of superservice stations which cut in on their business.

The profit on car sales has become so small that dealers have found it necessary to not only sell parts and accessories but to merchandise labor, and they feel anxious for fear that exclusive service-station business will deprive them of their labor sales.

Danish mechanics are good, far better than the average, but specialized service requiring extra training has only been started.

The garage and shop equipment most needed and now in demand includes valve grinders, electric test benches, jacks, oil and grease guns, paint-spraying equipment, arbor presses, battery chargers, cylinder-boring machines, rectifiers, portable drills, reamers, wrenches, tire-repairing machines, air compressors, and auto lifts.

The sale of electrical equipment is somewhat restricted by the comparatively high cost of current in various parts of Denmark. The number of mechanics in a position to afford mechanical tools is also limited with the result that there is still a lot of hand work done, but the field for mechanical tools can and will be developed. There is a fair business in polishing machines, brake-testing machines, cranes, lubricating and grease-dispensing systems, towing and salvaging equipment, welding outfits, pumps, and wheel-alignment equipment.

There are about 7,800 retail gasoline pumps in Denmark, practically all of which have been installed by the oil companies. Formerly a considerable number of the pumps were imported from the United States and France, but the domestic industry now supplies the needs of the market.

American equipment is largely used to the extent that the market had been developed, but considerable equipment is made locally by one manufacturer who has created severe competition in garage tools and equipment, including jacks, tire pumps, brake-lining machines, and special tools for every make and model of car placed on the market. These Danish tools not only compete in the domestic market and local assembly plants but obtain good sale through Europe. German makers also offer heavy competition in hand tools, and a Swedish firm does a large business in wrenches.

Further use of mechanical garage equipment has been restricted by reason of the fact that car owners have become accustomed to paying for service on a time basis. Modern equipped service stations represent considerable investment in expensive machinery for testing and quick repair, but the Danish car owners believe that they should only be charged a nominal amount for a mechanical job requiring a few hours even though they would not protest a higher charge based on three days of hand labor. Considerable pioneer work is necessary to educate the Danish car owners on the value of time saving before superservice stations will be successful.

Most automobile dealers operate garages and repair shops, but a number of independent garages and individual mechanics compete for service jobs. Many of these repair shops and individual mechanics have extremely limited equipment, but the need for better and more modern equipment is becoming recognized, and the trade is certain to develop in this direction.

Copenhagen is the only important distributing center in Denmark, and manufacturers have developed this market by appointing agents

who sell to jobbers and direct to car dealers, garages, service stations, and individual mechanics. Present distribution methods are satisfactory, and the territory is thoroughly canvassed. It is customary for manufacturers to grant responsible agents as much as 90 days' credit on documents against acceptance terms.

### ESTONIA

**Market for Replacement Parts and Accessories Increasing, Service Appliance Demand Limited—American Products Lead in All Three Classifications**

*J. Reintam, American consulate, Tallinn*

Motor vehicle registrations as of January 1, 1931: Passenger cars 1,765, busses 187, trucks 1,123, motor cycles 551.

#### REPLACEMENT PARTS

The sales of replacement parts and accessories have increased rapidly during the past five years, in keeping with the growing registrations of motor vehicles, and attained the highest level in 1930, which was due largely to the open winter of 1929-30 and increasing transportation of materials which kept the trucks busy well into the summer months of 1930. The winter of 1930, however, was very severe, making automobile traffic over country roads practically impossible. In addition thereto the country is suffering from a severe economic crisis, which is apt to result in decreased activity in most of the industries and consequently transportation. Therefore, the sales during the present year are not likely to attain the level of 1930.

The most important replacement parts include bolts, brake linings, bushings, fan belts, spark plugs, valves, pistons, piston rings, batteries, gears, shafts, rims, and rim parts.

American products are well regarded and account for approximately 70 per cent of the demand. The competition offered to replacement parts for American automobiles in Estonia by both European and the domestic industries has hitherto been unimportant and confined only to certain items. Competition is the keenest in the line of ball and roller bearings. The Swiss and English products cover about 75 per cent of the local demand. The remaining 25 per cent is covered by various other European and, to a certain extent, American makes. German spark plugs have secured a very good reputation and they enjoy the largest sales in the local market for replacement purposes. Other products of European manufacture which compete with American-made replacement parts include bolts, brake linings, fan belts, body hardware, and certain small items such as valve springs, cotter pins, etc. The reasons for the European competition in these products include lower prices and quicker delivery. Domestic competition is confined mostly to springs, which are of good quality and are sold both direct by manufacturers and by parts and accessories dealers.

The logical distribution center for automobile parts is Tallinn, the capital city and principal seaport of Estonia. At least 99 per cent of the total imports used in the automotive field arrive in Tallinn by sea. At the same time 50 per cent of all the automobiles in circulation in Estonia are registered in Tallinn and adjacent territories,

the remaining half of the vehicles being scattered throughout the country.

In addition to the automobile dealers who carry only parts for the cars which they sell, there is one dealer who also carries parts for other lines sold in the country. In addition, there are four firms in Tallinn which are engaged in handling parts and accessories only. They all are importers, wholesalers, and retailers at the same time.

All these firms import their stocks direct from abroad. Their wholesale business is confined mostly to sales to small retail dealers located in other cities. Automobile dealers also sell wholesale to the four parts and accessory firms in Tallinn. Parts and accessory dealers order in various ways. Parts for shipment direct from the United States are ordered as a rule through wholesale export agents of manufacturers in New York or some other important center in the United States. Only in exceptional cases is direct contact with the American factories maintained. This practice is followed for two reasons: First, the individual orders from local dealers for any one item in the line of replacement parts are frequently too small to be of interest to a factory, and, secondly, there is a decided saving in forwarding expenses, which results from cumulative shipment of all items assembled by the export agent from perhaps 10 or more factories. Connections with these export firms in the United States are maintained either direct or, more often, through traveling representatives who call about two or three times a year at Tallinn. Attempts have also been made by certain local individuals to act as factory or exports agents' representatives on the ground, but the amount of business secured by these people has been rather negligible and is declining.

American replacement parts from European distributors are mostly purchased by sending orders by mail or by telegraph. However, traveling representatives of these distributors also call occasionally at Tallinn.

The usual terms to which Estonian parts and accessories importers are accustomed are 90 days against acceptance from the date of arrival of the shipment.

Money is very close in Estonia, and available from banks only at the interest of 11 to 12 per cent per annum. This is the main reason why local dealers seek credits abroad. Another reason is the practice of granting retail credit to customers. In spite of an informal agreement among dealers not to grant retail credits on amounts smaller than approximately \$8, it often happens that credit is granted on purchases as small as \$1.50. The usual terms of these retail credits are from 30 to 60 days.

In view of the high interest charged on money by domestic banks, Estonian importers are willing to pay up to 6 per cent per annum on credits secured from foreign firms. This rate of interest is charged by many European manufacturers and practically all American exporters. The latter have, however, gone a little further, granting credit of 90 days from date of arrival of shipment and charging interest of 6 per cent per annum from the date of shipment. In view of the fact that the shipments are in transit from 6 to 8 weeks, the rate of interest on the 3 months' draft accepted against documents at Tallinn, amounts to 9 per cent per annum.



This circumstance is apt to present an argument in favor of European manufacturers, whose net interest does not exceed 6 per cent.

No special makes of parts or accessories are, as a rule, advertised in Estonia. Automobile dealers insert advertisements from time to time in local daily newspapers, urging the importance of the use of original parts for replacement purposes. Parts and accessories dealers, however, seldom advertise in the daily press and prefer for this purpose only publications of a special character, such as the Estonian automotive journals, exhibition directories, and various automobile handbooks.

Advertising by direct mail, packing advertising literature with goods, distribution of novelties, etc., is confined only to such literature as is secured from the manufacturers of parts. In case of American goods the effect of this advertising is lost, since the English language is seldom known among the general public. According to the dealers the printing of literature in Estonian for this distribution is too costly in view of the small size of the market. Advertising is done also by means of a display of parts and posters in the show windows of the dealers and inside the premises. Large billboards and roadside signs are not used.

Local dealers state that American firms often send considerable quantities of various kinds of advertising signs on sheet iron and cardboard together with shipments of parts and accessories. This practice is disapproved by Estonian importers in view of the high duty on such items. In case of large shipments of this kind they have refrained from clearing them through customs and have purchased these later on at auctions, arranged by the latter authorities for goods left uncleared, at prices much lower than the amount of duty. It seems to be the desire of local dealers that this practice of sending elaborate signs, show-window stands, etc., in liberal quantities be discontinued by American firms.

#### ACCESSORIES

Imports of accessories have steadily improved during the past four years with America's share of this participation estimated at approximately 70 per cent, the remainder being mostly of German origin. There is no domestic competition in this line.

Only such accessories as are of distinct practical importance are in demand owing to the low purchasing power of the Estonian motoring public. The more important items carried regularly in stock include jacks, lamp lenses and bulbs, lubricating devices, fire extinguishers, rear-view mirrors, wind-shield cleaners, nonskid chains, direction indicators, and taximeters. The large share of European products in the accessory line is explained principally by the low prices quoted by these competitors.

Practically all of the statements made above in the discussion of the distribution of replacement parts apply to accessories, which are imported by both car dealers and firms dealing in parts and accessories alone, the latter securing about 70 per cent of the business. The dealers in Tallinn are importers, wholesalers, and retailers at the same time. Their wholesale business is confined to sales to small dealers in provincial towns. Owing to the relatively small size of

the market and several importing wholesale dealers, the granting of representation or agency to any one firm has produced negative results.

Credit terms, advertising, and other general features of the accessories business are so much identical with the practices followed in the line of replacement parts that a special discussion is unnecessary.

#### GARAGE AND SERVICE-STATION EQUIPMENT

At the present time there are about 10 fairly well-equipped automobile repair shops in Estonia, and in addition, about 10 shops of minor importance are operated in Tallinn, and an equal number in the provincial towns. Three of the well-equipped shops belong to dealers of automobiles most popular in Estonia, especially for servicing their particular makes of cars. Remaining workshops are owned and operated by individuals entirely independent from automobile and parts and accessories trade.

There are no public garages with servicing facilities in the country comparable to any extent to those establishments in the United States or any large European cities.

The average-sized workshop in Estonia employs about five men. In addition there are a number of apprentices who are employed to do work of minor importance. Estonians make fairly skilled mechanics, and the quality of their work is regarded as good. The general appearance of the workshops leaves much to be desired, but this means nothing to the customers as long as the work is done well and at low cost.

Practically all the equipment now in use is of a universal character, such as lathes, drill stands, emery wheels, welding outfits, etc. Special garage equipment, including motor stands, car hoists, aligning devices, large jacks, etc., are almost completely excluded from the list of equipment of repair shops in this country. Valve grinders and cylinder-boring machines and reamers are used only by the largest shops. Most of the equipment in use for this purpose is of American manufacture. Preference is given to these types of devices which need no special stands and can be used in connection with a lathe or drill stand, in view of the lower prices for such devices. Electrical work, such as repairing and charging of batteries, generator starter, and horn repairing is not done by most of the workshops but by only a few establishments. Automobile tire repairing is not done by general repair shops, there being several special tire-vulcanizing establishments which take care of this business. The tire-repair shops are small and use practically no labor-saving devices.

European competition is very keen, while domestic manufacture is negligible. The advantages of the European-made products are to be found mostly in lower prices and in the proximity of the sources thereof to Estonia, which makes it unnecessary for dealers to keep heavy stocks and enables them to order in conformity with the local demand. The only possibility for American products to secure a larger share in total sales would be the granting of credit terms up to at least 120 days and getting local dealers to keep certain items in this line in stock.

Repair-shop equipment of general character is sold by firms dealing in all kinds of industrial machinery and equipment. Agencies for certain makes of garage equipment of a special character have mostly been granted to these firms. However, large items in this line are very seldom carried in stock by these dealers, and orders are placed only in case an opening for sale to a local workshop appears. Small tools such as wrenches, grease guns, reamers, cutters, etc., are also handled by parts and accessories dealers.

These methods of distribution have proved entirely satisfactory and can be recommended for any further sales efforts in the Estonian market.

### FAROE ISLANDS

Consul Edward M. Groth, Copenhagen, Denmark

Motor-vehicle registrations as of January 1, 1931: 20 passenger cars, 32 trucks.

The Faroe Island group comprises 24 islands, 17 of which are inhabited, has an area of 540 square miles, and lies in the north Atlantic Ocean about half way between the Shetland Islands and Iceland. It is under Danish sovereignty and has a population of approximately 30,000 persons.

The roads now passable have a total length of not over 80 kilometers, but their existence has made the use of motor cars possible and it is probable that the number of motor vehicles will increase in the next few years. The market for replacement parts, accessories, and garage and service-station equipment is naturally very limited.

### REPLACEMENT PARTS

The market for replacement parts is a comparatively recent one, as no motor vehicles were imported into the islands until 1923.

With the exception of ball and roller bearings, bolts, brake linings, spark plugs, and springs, replacement parts are seldom required. American participation is practically 100 per cent, as all but one of the motor vehicles now registered in these islands are of American manufacture. American cars are expected to enjoy their favorable position because of their sturdiness and ability to withstand unfavorable operating conditions.

Distribution of replacement parts is affected through local automobile agents located in Thorshavn, the capital of this island group, which is the largest and best port. These agents control all of the automotive-import trade of the islands. At present practically all of the automotive vehicles, as well as the parts required, are imported from Copenhagen.

The local dealers state that they are compelled to extend long credit to their customers; hence, they are also desirous of obtaining the longest possible credit.

Newspapers are, undoubtedly, the most satisfactory advertising media for parts, but the number of such publications is small and rates are high.

### ACCESSORIES

There is an increasing demand for accessories in the Faroe Islands, but the present and future demand of these articles is and must necessarily be limited because of the small population and purchasing power.

Accessories most in demand are nonskid chains, electric horns, hand jacks, tire pumps, shock absorbers, and wind-shield cleaners. Other accessories in general demand elsewhere are seldom required here.

American manufacturers enjoy all the automotive-accessory trade in the Faroes. Accessories are marketed through exclusive distributors who sell these products on their own account. These distributors are the two motor-car agents previously mentioned. There are no exclusive accessory dealers. Small stocks are generally kept of the accessories most in demand, and these are ample to cover market requirements.

To do business in the Faroes, the granting of long-term credits is considered absolutely essential.

### GARAGE AND SERVICE-STATION EQUIPMENT

Progress is being made in providing service facilities, but some time must elapse before this can be considered satisfactory. The delay in this direction is largely due to the limited number of motor cars requiring such attention and also because it is very difficult to obtain properly trained mechanics.

Most of the garage and service-station equipment used is of American origin. European competition is extremely small, almost non-existent. There is no domestic production.

Practically all kinds of equipment are needed, but the market is and will always be very small. The general reasons for this have already been discussed, but to them should be added the very important one of limited-purchasing power.

There is likely to be a slightly increased demand for parts, accessories, and service equipment in the Faroe Islands, which will undoubtedly be supplied by American manufacturers who maintain agents in Copenhagen.

### FINLAND

**Demand for Replacement Parts Has Declined—Accessories Limited, and Service Appliances Promising—American Participation Accounts for 90 Per Cent of the Trade**

Trade Commissioner Frederick C. Sommer, Helsingfors

Motor-vehicle registrations as of January 1, 1931: 24,040 passenger cars, 1,419 busses, 10,775 trucks, and 5,404 motor cycles.

### REPLACEMENT PARTS

The parts market in Finland during the year 1930 was affected by the general economic depression, the stringency of money, Russian competition in world markets in Finland's most important export

article, namely, lumber (including paper), which comprises 85 per cent of its total exports, and the overextended condition resulting from the boom years 1926-1928.

Parts most in demand are ball and roller bearings, bolts, brake linings, bushings, fan belts, spark plugs, valves, pistons, piston pins and rings, gears and pinions, drive shafts, starting and lighting generators. Articles having a lesser demand include clutch facings, driving and timing chains, stampings, plain bearings, radiator caps, shims and shim stock, rims, and rim parts.

American products enjoy considerable popularity and control about 90 per cent of the total requirements. European competition is encountered in bearings from Sweden and Germany, body hardware and upholstery material from Germany, and piston parts from Switzerland. It is noted that German ball and roller bearings are sold at about one-third the price of the American product. German bolts, fan belts, and spark plugs are also sold in this market, while the domestic industry accounts for a certain amount of automobile springs, storage batteries, rubber, and leather products.

No serious general competition is suspected from local or European manufacturers although a feeling is growing steadily for the Finnish public to support local industries and buy from domestic producers.

Practically all replacement parts are imported from American manufacturers by jobbers in Helsinfors and to a slight extent through Oslo and distributed therefrom to parts dealers, repair shops, and garages. Considerable parts are sold by automobile dealers, especially in the low-priced cars, but there is not an apparent tendency for concentration of distribution along these lines. The usual terms are 90 days' sight draft.

The most effective advertising means is direct canvassing by the agent of all the dealers in the automobile trade and through catalogues and price lists. The next best method of advertising is the larger Finnish newspapers.

#### ACCESSORIES

The complete equipment now being included with standard passenger cars and the limited purchasing power of the Finnish market tend to restrict the purchase of automobile accessories.

The accessories most in demand are nonskid chains, hand and mechanical jacks, hand and electric wind-shield cleaners, while those in less demand are covers for hoods, radiators, and tires, lights (head, rear, stop, and parking), tire pumps, and tire gauges.

American lights, lubricating systems, speedometers, tire gauges, and pumps are very popular. A considerable number of Swedish snow chains are sold, however. German upholstery covers, mirrors, jacks, taximeters, headlights, spotlights, etc., are sold.

Any equipment that might help reduce operating costs, fuel consumption, etc., will find a market. Magnetic and mechanical traffic signals on the sides of the windshields are becoming more popular, although traffic regulations in Finland do not require them yet except

on taxicabs and trucks. These signals or indicators are mostly of German manufacture.

Competitive American and Swedish nonskid chains are sold by the same dealer, as are tire pumps, tire gauges, and several other small articles. Seat covers are made almost entirely in Finland, as well as hood, radiator, and tire covers.

Accessories are marketed through exclusive sales agents who buy on 90 days' sight draft and carry considerable stock from which the dealers throughout the country are supplied. The central point of distribution is Helsingfors. Accessory stocks are also carried by automobile dealers.

Present methods of distribution are quite satisfactory. Owing to the economic depression and the great number of manufacturers, both American and European, already represented, extreme difficulty is experienced in placing additional agencies in the accessory line.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are few public garages equipped with all modern garage appliances, some of which have repair shops and properly trained mechanics. Most of the garages are operated by automobile dealers.

The equipment most in demand includes air compressors, garage tools, hydraulic and mechanical jacks, oil and grease guns, high-pressure chassis-lubricating and grease-dispensing systems, portable drills, reamers, and wrenches.

American equipment enjoys considerable popularity, accounting for about 90 per cent of the total demand, some German and other European equipment making up the balance. German air compressors, Swedish wrenches, and other garage tools are used in Finland.

Most garages are provided with electric current for the operation of service appliances. Tires are usually changed by hand, though mechanical equipment is carried by the importer. Most tire repair work is done in repair shops.

In the absence of a direct American traveling representative, the best method of selling in this market is through a jobber. Present distribution methods are considered satisfactory. Terms generally acceptable are 90 days' sight draft.

The idea of having trained mechanics employed in the garages in Finland is growing. There is a Government automobile training school in Helsingfors which has been active for the last few years and has turned out some very good mechanics.

The market for all types of automobile equipment, including garage appliances, is small, especially at this time, owing to scarcity of money, but as soon as conditions improve and credit is easier, it is probable that considerable American equipment will be sold in the Finnish market.

## FRANCE

**Automobile Registrations Have Doubled in the Past Five Years—Market for American Parts and Accessories Narrowed by Heavy Domestic Competition and Tariff Protection—Demand for Garage and Servicing Appliances Has Extremely Favorable Outlook**

Prepared by the American Consular Service in France, with the Collaboration of W. L. Finger, American Automotive Trade Commissioner to Europe:

Motor-vehicle registrations as of January 1, 1931: 1,080,000 passenger cars, 34,400 busses, 345,250 trucks, 427,000 motor cycles.

During the past five years, automobile registrations in France have doubled, and as the per capita circulation is still comparatively low it is reasonable to expect substantial annual increases for some time to come. It is estimated that 10 per cent of the motor vehicles circulating in France are of American origin. Imports of vehicles declined during 1930, partly due to the increase in French tariff rates and partly to the general economic depression.

Domestic production of replacement parts, accessories, and garage equipment has increased on a scale corresponding with that of the automobile industry. It has extended to the production of practically all the easily replaceable parts of the more popular makes of foreign cars, although the bulk of the parts made for certain American makes must still be imported.

The export trade in French-made parts and accessories is important, accounting for probably 20 per cent of the entire output. The intense domestic competition, with the tariff protection it enjoys, has narrowed the market for American parts and accessories to articles for which the French market is yet too small to justify domestic production, and to perfected new devices and garage apparatus that can not be duplicated there in the same quality at prices made possible by American mass production. Some large American manufacturers of accessories maintain branch factories in France and supply articles for French and foreign-made cars.

During the past year the local automobile industry has been operating at 25 per cent below normal, but retail prices of cars and, aside from tires, the retail prices of parts and accessories, have held up remarkably well. With the lowering of production costs in the American industry, the market for certain types of American equipment there should improve, but when forced to meet foreign price cuts in their own field, it is probable that the domestic manufacturers and dealers will do likewise.

Retail accessory business is becoming smaller on account of the practice, begun four years ago, of car makers in France to equip their products with all of the commonly desired accessories.

A development begun two years ago, which should continue at an accelerated pace, has been the transformation of numerous large garages and service stations into modern, well-equipped establishments for the prompt handling of motor-car needs. Installation of American high-power apparatus at several stations in the Paris region has been followed by others, both at Paris and in the Provinces.

## REPLACEMENT PARTS

The market for parts has kept pace with the increased use of motor cars; in the past four or five years imports of American cars advanced steadily, and the need for parts grew proportionately.

Another factor in the recent development of this market for American parts is their use by French car builders. These include axles, gears, bearings, steering wheels, clutch facings, body hardware, and some motors. The increased French tariff, effective in April, 1930, has tended to check this movement, particularly as it applies to the importation of American motors.

The parts most in demand are pistons, piston rings and pins, ball and roller bearings, bolts, valves, axles, brake linings, clutch facings, body hardware, gears, pinions, spark plugs, generators, storage batteries, starting equipment, steering gears, and a few motors. The superior quality of American steel used in many parts has been the chief factor in giving them a market preference.

The principal competition comes from the French automobile industry. This applies to nearly all of the common parts on both low and medium priced cars. It is interesting to know that manufacturers of parts exclusively are very few in number and they are of much less competitive force than in the United States. Spare parts for the several thousand American trucks sold from Army stocks and still in circulation form a special category, but this demand is decreasing annually. Stocks of spare parts in dealers' hands are said to be low, due to the belief that manufacturers will grant further reductions in price.

German competition is being felt in spark plugs, body hardware, generators, and brake linings, by reason of lower prices quoted and serviceability of the articles. Retail prices have resisted the downward trend, but many believe that they must soon follow unless substantial improvement in business develops.

The chief argument against the purchase of most American cars in France is that of the difficulty, delay, and expense attending delivery of replacement parts. Imported American parts in general are sold at 30 to 100 per cent above the quotations for similar French products. The argument of delay and expense is well answered at Paris, where general agencies for American cars maintain service shops, but it remains strong in the Provinces.

Paris is the leading distributing center for both domestic and foreign-made parts. The chief provincial centers are Lyons, Marseilles, Bordeaux, Lille, and Strasbourg. There is very little direct importation of American-made parts for distribution to other French cities than Paris. Small stocks are kept by some concerns in bonded warehouses at Havre. Other shipments to the French market are made from Antwerp and Hamburg. Central Paris agencies of leading American car builders carry limited supplies of parts in frequent demand, but the more expensive and the infrequently needed items are specially ordered from a European depository or from the United States.

Agency distribution of replacement parts is effected by direct sales to car manufacturers for use in their own repair shops, by sales to



wholesale establishments, centered at Paris and having branches in the principal cities, and through sales by traveling salesmen to local dealers. Some parts manufacturers ship direct to retailers, allowing the regional distributor credit if he is on an exclusive contract basis.

The greater part of the distribution of replacement parts to retailers and garages is in the hands of four or five wholesale houses at Paris, with their provincial branches.

The complete illustrated catalogues of these houses are available to the smallest garages, and as prices are held fairly uniform there is no advantage in buying from an importer. If an importer or general distributor cuts prices the wholesalers drop their articles unless given credit for the difference. Traveling salesmen are chiefly valuable in stimulating interest in particular parts, most of the orders being thereafter filled by the wholesalers.

The usual terms made by American exporters of replacement parts are cash against documents on arrival of the merchandise. In a few instances of well-established relations, the terms are short-time draft. German manufacturers grant liberal credits, sometimes four to six months, but their share in the trade is small. French manufacturers allow 30, 60, or 90 days' credit to agents and wholesalers. The usual allowance to garages and dealers is 30 days after end of the month of delivery, although for large orders the time is often extended to 60 or 90 days.

Discounts to importing agents vary from 30 to 50 per cent. One large foreign motor-car manufacturer grants 40 per cent on old-model parts and 30 per cent on new-model parts. The import agent or general distributor of American parts usually allows 10 or 15 per cent to garage operators or subagents, reducing by this amount his own profit. French manufacturers of parts grant from 20 to 40 per cent discounts to wholesalers or agents, who pass one-half to two-thirds thereof to the dealer or garage.

There are no special manufacturing requirements for replacement parts sold here for use on American cars or trucks. Those adapted to French vehicles should, of course, follow the metric system of measurements. Under French laws, manufacturers of parts may use the name of any automobile for which they are intended if the preposition "for" is employed; thus, "radiator for Citroen," but not "Citroen radiator."

Government regulations require operation of brakes by two independent systems of control. If, however, the car has 4-wheel brakes operated by two independent controls, one set of brakes is adequate. If the brakes are on two wheels only, two separately controlled sets of brakes must exist. Special regulations also exist on lights, which are treated under the accessories classification.

Advertising methods applicable to replacement parts and also to accessories consist of: (1) Insertion of descriptions and illustrations in wholesalers' catalogues, (2) distribution of circulars and leaflets among garage operators and dealers, (3) outdoor signs and indoor posters, (4) window displays, (5) exhibitions in the national and regional automobile shows, and (6) advertisements in the automotive trade and the touring club reviews.

## ACCESSORIES

The demand for accessories has declined sharply during the past few years, owing to the practice of car builders to equip new cars with standard accessories. The car manufacturer has therefore displaced to a considerable extent the dealers in bulk purchases of this class of goods. This has also led to the manufacture by car builders of many accessories formerly put out by special accessory factories. This applies to bumpers, luggage carriers, trunk racks, rear-view mirrors, windshield visors, signaling lamps, dashboard equipment, and many other attachments. There is a constant demand for accessories possessing novelty and utility and for small apparatus such as jacks which function efficiently.

The American share in the trade is small, owing largely to the great technical skill of the French manufacturers. Some of these send representatives periodically to the United States in order to get exact knowledge of the newest and most perfected accessories for production in their own factories. New foreign appliances appearing in the market, unless covered fully by patents and promptly introduced, are imitated at lower prices, and even when protected by patents similar articles from domestic sources soon appear to contest the field.

In supplying accessories for French cars the market is limited by the fact that over half the French-car production is in the hands of three concerns: Citroen, Renault, and Peugeot. These companies make many of the standard accessories used on their series cars. Several American companies, in order to meet domestic competition and exploit fully the market possibilities, now manufacture accessories in France.

The present demand applies particularly to tire and radiator covers, radiator thermometers, electric horns, hand and mechanical jacks, cast-aluminum license plates, lighting and signaling equipment, body hoists, tire pumps, radiator shutters and shields, shock absorbers, tire gauges, seat covers, and electric wind-shield cleaners. French car owners of the middle and upper classes are fond of equipping their pleasure cars with a great assortment of useful and ornamental accessories, and any new serviceable and attractive device is sure to gain notice.

A wide variety of electric headlights and spot lights is found in the French production, and very few are imported other than as equipment of new cars. Effective April 1, 1931, all headlights on cars in circulation must now be stamped by the Bureau of Mines or under its authorization. In order to secure the stamp of approval each car must be equipped with two lighting systems, one for long-distance illumination and the other for passing another vehicle without dazzling the eyes of its driver. The beam in the first case should give visibility at 100 meters and the other at 25 meters.

The necessity for switching to the low-powered light when approaching vehicles on the highway has led to the general adoption of movable spot lights, of which dozens of types are made in France. It is probable that regulations regarding these lights, which have often proved as blinding to approaching drivers as the full-powered headlights, will soon be in effect.

The signaling device preferred is a luminous "stop" sign attached to the rear of the vehicle. Practically all of these are automatically operated by the brake. One such improved French device, with aluminum finish and brake connection, retails for \$9.

Except in the northern portions of France, it is rarely necessary to protect radiators against extreme cold. Sales of antifreeze appliances have therefore been very low. Taxi drivers in Paris still use newspapers to protect radiator fronts on cold days, while many owners employ thick woolen rugs. A commonly sold protector is a cover of rubberized fabric, fitting around the radiator with a flap that may be rolled up to admit air when the car is in motion. Prices for these widely used covers extend from \$2.50 to \$7 at retail, according to size. Metal protectors have come into use in the past two years, but their expense and the mild climate retard general adoption.

The sale of heaters for pleasure cars is restricted due to the mild climate except in northern France, where there is a limited demand on the more expensive cars. Efforts to introduce American heaters have not been successful, owing to the small demand and the existence of lower-priced French heaters.

It has been found impracticable to import shock absorbers from the United States except for American cars because of the necessity of fitting them to particular models of French cars and furnishing an adequate replacement service. There are a dozen makes of shock absorbers manufactured in France.

Electric horns are rapidly replacing the compression horns which were used a few years ago. Local regulations require two horns, one of limited audibility for the city and a loud instrument for the country roads.

This rule is not strictly enforced, and a horn of moderate sound volume appears now to satisfy both requirements. Prices at retail for electric horns average from \$8 to \$16; several American and German horns are on the market, but French makes predominate.

Domestic competition is keen in all lines of accessories, owing to the great variety of similar articles manufactured in each category by French firms. Among foreign-made accessories, the American appliances predominate, with some competition from German and British makes. The excellent material and workmanship of the American appliances gives them a distinct advantage which is offset, however, by uniformly lower prices for French and German products.

Aside from contract arrangements between accessory and car manufacturers, accessories are marketed in much the same way as parts. Large wholesale firms buy from importers and manufacturers, carry small stocks, and distribute by means of salesmen and catalogues. The volume of mail-order business from local dealers and garage operators is a substantial part of the whole. American accessories are handled through branch offices or exclusive agents at Paris. Retailers carry small stocks and supply garages at a discount.

Some of the wholesale establishments accept exclusive distribution arrangements, but the largest prefer to buy without obligation and to list in their catalogues an assortment of articles in each category. It is therefore more advantageous for an American export firm to sell to a general agent who would push the particular accessory or make of accessories. Initial satisfactory relations have led to liberal

credit terms, the establishment of a repair service or partial manufacture by the agent, and in some cases to branch offices or factories.

Customary discounts of the trade depend on the article and the quantity. Based on the list price, the discount extends from 15 to 30 per cent for the wholesaler and from 20 to 35 per cent for the retailer.

American exporters allow importing agents or wholesalers from 30 to 50 per cent of the list price. Credit terms are the same as those for parts, previously mentioned. Due to the depression in the industry, credit terms have been somewhat liberalized, although the number of failures among dealers and garage operators has induced great caution in accepting deferred payment orders.

#### GARAGE AND SERVICE-STATION EQUIPMENT

During the past two years an outstanding development has been the rapid growth of better service methods, involving the installation of modern equipment, of which a large share comes from the United States. This improvement has been due to the demands of the motorists and the active competition among the excessive number of motor-car workshops. Model service shops at the outskirts of Paris have stimulated the movement.

There are about 6,000 garages in France, of which 1,500 are in the Department of the Seine, which includes Paris. Nearly all of these garages are individually owned and practically all act as automobile dealers. There is a growing tendency toward incorporation and multiple operation.

As a medium between filling stations and garages, the service station is still rare in this country. Even at the attractive roadside stations built by the large petroleum companies it is customary to furnish only fuel, lubricants, and air. However, one or two such stations have installed a quick service which includes lubrication, oil changing, washing, and small adjustments. The sight of a car suspended on a modern lift is still so unusual as to attract attention from passersby. It is reported that Peugeot and Citroen, who produce nearly one-half of the entire output of French cars, now give a service guarantee of one year covering body adjustments, mechanical verification, and replacement of defective parts. Price lists for common repairs are given owners, and agency garages for the two cars are obliged to conform thereto. The American car manufacturers represented in France require their general agencies to maintain service stations.

Garage mechanics in France are, as a rule, well trained and skilled in the performance of their work, but they usually proceed with deliberation because of the influence of habit and the fact that both wages and repair bills are figured on a time basis. Wages in Paris for such laborers average \$0.25 per hour, and time work is charged at \$0.60 per hour. At the French watering places the rate is 15 per cent higher than in Paris. The washing of a car ordinarily costs \$0.70. Most of the mechanics are unacquainted with high-pressure modern machines for service jobs, and they prefer to employ simple tools and apparatus as in the past. However, the tendency is clearly in favor of improved mechanical methods, as the French automobile

mechanics are an intelligent class of workers, they can be expected to adapt themselves very easily to new conditions.

American equipment has led the way in modernizing French garages and repair shops. Among the American appliances chiefly employed are tire-service instruments, roller jacks, gasoline pumps, paint-spraying equipment, portable drills, cylinder-boring machines, cranes, and small tools. American roller jacks are the most widely distributed of such articles, being found now in the larger garages of the principal cities and in many small ones. A few American auto lifts are in use, but the old pit method is still generally employed.

The garage equipment most needed consists of air compressors, brake-testing machines, car washers, cylinder-boring machines, cranes, roller jacks, paint-spraying and wheel-alignment equipment, tire-repairing machines, valve grinders, battery chargers, and auto lifts.

Air compressors on the French market are of many kinds and they vary in retail prices from \$80 to \$250. The type of electric compressor most in use is a small movable apparatus costing about \$90. High-priced American compressors have found no market in France.

Roller jacks on the market are French, American, and German. The American appliances retail at \$125, but French-made articles are offered as low as \$7. Roller jacks have been among the best-selling garage implements, and the demand should continue, as the field is by no means exhausted.

The sale of auto lifts has been restricted by their cost and by the conservative habits of the French garage operators, who cling to the old pit method for undercar work. A French lift is put out on express order by a company engaged in the manufacture of freight elevators. The price is somewhat higher than for the imported American article.

Some time ago a Paris importer of an American car-washing machine demonstrated that it would do in 10 minutes a job requiring an hour with an ordinary hose, yet no sales resulted. In the course of time, due to the demand from car owners for quick service, the advantages of a rapid-cleansing machine will offset the initial cost, but at present the price seems unwarranted to the French garage owner. In the meantime, a French machine is offered at retail in different sizes at from \$50 to \$200 under the price of the American product.

The use of spraying guns, attached to compressed-air equipment, has become generalized in the body-building plants of the French automotive industry. Only a few of the largest garages, however, are equipped to reenameled cars by the spray method, it being customary to take cars to a body plant or a specially furnished lacquering station for this work. The difference of one-third in recoating prices causes most car owners to accept the brush method. Some of the central garages are installing power-spray equipment, although its cost retards general adoption.

Electric current is available in all French cities and in most of the towns and villages. The rates are moderate, averaging in the Paris region \$0.03 per kilowatt-hour for power purposes. In the central part of Paris the current is 5-wire direct (110-440 volts) as well as 3-wire direct (110-220 volts) without transforming. In the outer sections and suburbs it is 1, 2, or 3 phase alternating current, 50 cycles, 110 volts. The universal motor, 110-120 volts, is recommended for importation.

At Bordeaux, aside from a small sector supplying direct current at 110-115 volts for lighting and at 200 volts for power, the entire city utilizes alternating current, 3-phase, 50 cycles, 110-115 volts for lighting and 200 volts for power. The power rate is \$0.029 per kilowatt-hour for small motors. At Marseille, the current generally used is alternating, 50 cycles, at 110 volts. At Cherbourg, two types of current are available, a direct at 110 volts and an alternating at 115 volts. The price of current for industrial usage is \$0.06 per kilowatt-hour.

The lack of capital, comparative cheapness of labor, carelessness of some workers in handling costly or delicate appliances, and willingness of the majority of motorists to submit to delays in service are the principal reasons preventing a general installation in French garages of modern equipment. The market for appliances found salable is limited by the sharp and immediate competition of domestic manufacturers who imitate at lower prices any foreign apparatus exciting a demand.

French manufacturers have been quick to realize the possibilities for the sale of improved garage equipment, and many firms are now engaged in this production. Imported apparatus of fairly simple construction, such as roller jacks and towing cranes, have met sharp competition from local products, despite the superior metal and mechanism of those from the United States, the lower prices for the French products being the controlling factor. It is probable that the French manufacture will be developed as rapidly as the demand justifies, but the quality demand for American material should continue unless the prices become prohibitive.

A few articles, including roller jacks, polishing machines, and garage tools, are shipped in from Germany, and tire-changing devices come from England, but there is no importation from other countries, according to dealers.

The prevailing method of changing tires in French garages is by means of hand levers, but, due to the increase in the number of rims requiring mechanical tools to open them, a usage of such tools has developed. Three or four makes are being sold on the market, an English implement being first, followed by an American appliance. Tire and inner-tube repairing is generally done in garages, but vulcanizing is done to a great extent in special shops. Owing to the sharp decreases in tire prices the vulcanizing craft has lost ground during the past year.

The main distributing center for garage equipment in France is Paris. The city and its environs contain 85 per cent of the French automotive industry. The larger wholesale distributors of accessories and garage equipment have a principal establishment at Paris. Regional centers of distribution are Lyons, Marseilles, Bordeaux, Lille, and Strasbourg. Further information about these and other important cities of France is given in a subsequent section of this report.

The best selling method in the absence of a direct American traveling representative is through a wholesale importer. Manufacturers' agents in France are exclusively agents for French factories and have no import facilities. Jobbers do business to a limited extent with the United States, owing to the fact that a product offered

under their names would not sell due to its high price. This difficulty is sometimes overcome by the original article showing clearly its origin and trade-mark. The present distribution methods are quite satisfactory when a reliable wholesale importer is used.

In considering the selling terms which would tend to increase the sales of American automotive products in this territory, it should be remembered that French and German firms grant much more liberal credits than appear prudent to American manufacturers. Garage owners willing to purchase modern machines often demand six months to one year, even on amounts as small as \$100. These demands are frequently granted because of the intense competition. As import terms for American articles rarely exceed 60 days' draft, and are often cash, the importer must carry the customer's liability for the interim period and this causes stocks to be kept at a minimum, in many instances consisting of only one appliance or apparatus of each type.

Initial customers for garage equipment are the service shops of the motor-car manufacturers. The next group of prospects would include the large taxicab and bus companies of Paris, which have a direct pecuniary interest in the speedy repair of their cars and which maintain garages for this work.

The installations of better and more modern equipment are increasing, but at a moderate pace only, due to the fact that many garage owners show a prejudice against time-saving machines because they save time, charges for which furnish their principal revenue. Ordinary mechanics prefer the customary manual and small-tool methods, regarding new, fast-working machines as rivals for their jobs. The tendency, however, toward improvement in methods has been discussed previously.

Before introducing a new article or appliance on the French market, it is advisable to protect it against imitations by taking out a French patent. Under the international convention in force, holders of United States patents have one year within which to apply for a patent in France. Patents must be exploited in France or the French colonies within three years from the date of application. The mere sale of the patented article in France is not sufficient, but an assemblage or partial manufacture is declared to satisfy the requirement.

Exclusive possession of a trade-mark is obtained in France by depositing with the clerk of the local tribunal of commerce a descriptive notice of the object or class of objects covered, together with three specimens of the mark and typographical cut, plus a number of copies of the mark equal to that of the classes or categories of products to which the mark applies. Deposit of the trade-mark in the prescribed manner gives protection for 15 years, which may be prolonged for a similar period. The resident agent of an American exporter to France may accomplish the formalities for his principal.

#### LEADING EQUIPMENT CENTERS IN FRANCE

In view of the importance of several cities in France the following comments indicate local conditions affecting the sale of American motor-car supplies and garage equipment.

## MARSEILLE

The consular district of Marseille, comprising 13 departments in the south of France and the island of Corsica, has a population of 4,500,000. Owing to the economic depression, a large number of used cars have been thrown on the market, and the prolonged use of old cars tends to sustain the demand for replacement parts. American cars constitute 5 or 6 per cent of the total. Replacement parts most in demand are valves, pistons, and piston rings. There is no local manufacture of parts, Paris and Lyon being the furnishing centers.

The accessory trade has fallen off more than the sale of automobiles, as car owners buy only the indispensable accessories. With the return of normal economic conditions the demand should embrace all the well-known accessories except car heaters. The demand for American items is limited to those of a novel nature offered on the market before similar appliances can be manufactured in France. Imported accessories, representing about 20 per cent of the whole, come from Germany, Italy, and America in the order named. French prices are much lower than those for foreign articles, and the French portion of the trade is said to be increasing.

During the past five years a number of modern garages have been built in Marseille. They include two with a 500-car capacity and one with a 400-car capacity. The smaller garages are inclined to modernize their service. There is a demand for practically all kinds of garage equipment. American types competing here include auto lifts, car washers, brake-testing equipment, and high-pressure lubricating and grease-dispensing systems. French supply sources are Paris, Lyon, and St. Etienne.

American distribution of garage equipment at Marseille can best be handled, it is thought, through an exclusive district sales arrangement with one of the larger wholesale houses at Marseille.

## LYON

The Lyon consular district consists of 15 Departments in the south-central region of France. Its population is 5,990,212.

French replacement parts are to be found for nearly all cars, including a low-priced American make. American spark plugs, generators, and storage batteries for French and other cars are on sale. Piston rings, and piston and valve springs are among the articles most in demand. There is no direct importation in the district, wholesalers finding it more convenient to order from Paris. Paris distributors for American firms in some cases offer larger discounts than do French firms. The usual rates are 25 to 40 per cent of the dealers' price for the wholesaler, and 20 to 25 per cent of the retail price for the dealer or garage operator.

There is a fair demand for novel American accessories, but French competition is rapid and severe. A wholesaler who profitably imported American wind-shield cleaners found his trade cut off by lower-priced French imitations. American electric horns have a smaller share of the business than formerly. Accessories are marketed through exclusive distributors, who sell on open market to wholesalers. The latter carry adequate stocks.



A slow but steady progress is being made in automobile service facilities. There are now a few service stations, as distinguished from garages, which have facilities for greasing and washing cars, but which do not make repairs. Doubt is expressed as to whether such ventures are proving profitable. Apparatus commonly found in the garages includes air compressors, battery chargers, welding equipment, pressure lubricating and grease-dispensing systems, portable drills and reamers, with all the usual small tools. Apparatus found to a small extent comprises car washers, cranes, polishing machines, tire vulcanizers, towing and salvaging equipment, and auto lifts. There is some brake-testing equipment and cylinder-boring machinery. An American make of the latter for small jobs is frequently used.

#### BORDEAUX

Replacement parts of foreign origin in chief demand are spark plugs and brake linings; starting and lighting equipment is also sold in volume. Several French companies make radiators to fit American cars. There is very little sale of American parts except for the few American cars in circulation.

The demand for accessories is good in view of the business depression and the decline in sales of new cars. Due to nonfreezing weather in most parts of the district, the sale of car heaters is negligible. Nonskid chains are not employed. Radiator shields have a small demand, but radiator shutters are rarely used. Windshield cleaners and wings are in increased demand. Electric horns are displacing the hand types, and shock absorbers and bumpers are deemed essential equipment by automobilists.

Types and prices of automotive parts, accessories, and service equipment do not differ materially from those sold at Paris except that the retail prices may vary slightly, since wholesale quotations are f. o. b. factory. Transportation costs account for the differences. A local branch of a large Paris wholesaler does a good portion of the business.

The chief development is the increased interest in modern garage equipment. Despite the depression, 1930 sales of the following types were ahead of those in 1929: Electric valve grinders and refacers, air compressors for tire inflation, hydraulic and mechanical jacks, high-pressure chassis-lubricating systems, grease-dispensing systems, and tire vulcanizers. Practically all the electric valve grinders and refacers come from the United States, together with many of the socket wrenches and other small garage tools. Hydraulic and mechanical jacks of American origin are also in use. At Biarritz, American car washers are said to be employed. With these exceptions the equipment is of French origin, aside from a limited quantity of German garage tools, mostly wrenches.

The great number of small garages restricts the capital required for the purchase of machine equipment. It is estimated that there are 50 per cent more garages than would be necessary were modern apparatus installed. There is a large potential demand, however, for such appliances. All the automobile dealers in Bordeaux operate garages with repair-service facilities, and there are many garages and shops which do not handle cars.

The Bordeaux fair in June, 1930, had an automobile section which furnished manufacturers of automobile equipment an excellent opportunity to display their goods. Information concerning exhibitions at future fairs may be obtained from the "Foire de Bordeaux," Palais de la Bourse, Bordeaux.

It is believed that no suitable firm at Bordeaux would be interested in direct importation of American accessories, parts, or equipment, but several might act as subagents for a central agency at Paris.

#### LILLE

The Department of the Nord, which contains Lille, has a population of 1,969,159. It is the second richest Department of France and is the center of the cotton and wool textile industries. In the Aisne Department, also in the Lille consular district, there are 539,473 inhabitants.

Lille has 5 large garages, 1 with a capacity of 1,000 cars, and 20 small ones. It has 3 large wholesale dealers in accessories and 6 or 7 important retailers.

Replacement parts most in demand are bolts, ball bearings, brake linings, bushings, clutch facings, chains, ventilator belts, springs, and spark plugs. Nearly all the sales are of French articles, although there is some sale of English and Italian brake linings, and American and Italian spark plugs.

In the category of accessories, American bulb horns made in France account for 30 per cent of the sales, French-made horns for 50 per cent and others for 20 per cent. Of the 30 manufactures of jacks in France the three principal makes sold in the Lille district are Michelin, Dunlop, and Tecalemit, which have 60 per cent of the sales. Lights of all kinds are 90 per cent French. American theft-proof locks, made in France, account for 50 per cent of the sales. An American body hoist, made in France, divides the market with the French Bernard, prices being virtually the same. Nonskid chains and bumpers sold are all French.

An American auto lift and the same make of car washer hold places on the market. Two of the largest garages have this equipment, while three others have the French Spiros, the French Hercules, and the English Manley. The French machines sell at \$28 to \$60; the English at \$40 to \$100. In air compressors the French Spiros and Bavox have 80 per cent of the market, while the remaining 20 per cent is taken by the English Manley. For battery chargers the German Bosch and the Italian Marelli divide 20 per cent of the market, the remainder being French. Wrenches and reamers are all French. Gasoline and oil dispensers are all made in France. The same is true of welding outfits and of oil and grease guns.

#### STRASBOURG

The demand for accessories is covered 90 per cent by French producers and 10 per cent by foreign manufacturers. About 15 per cent of the garages carry small stocks, supplied by local wholesalers.

German competition is very keen in garage equipment. Well-known American machines and appliances are imitated by German manufacturers at lower prices. Proximity to German producing

centers gives an advantage in quick delivery. Among the principal German articles are auto lifts (Levator, Berlin), air compressors (Leo, Gera), and car-washing machinery (Pumpenfabrik Urach, Urach Wurtemberg). Jacks, cylinder-boring machines, valve grinders, air compressors, and grease guns are in continuous demand. Labor is cheap and tire changing is done everywhere by hand.

About 80 per cent of the garages are operated by automobile dealers. Under the law in Alsace-Lorraine each garage operator who is a mechanic is entitled to two apprentices, who are paid a very low wage. If a master mechanic is employed, he is entitled to an apprentice. The average garage has a force of five or six with a small pay roll. Despite the cheap labor available, the outlook for up-to-date equipment is improving, as an installation by a competitor draws customers and excites emulation. Electrical current is available at low cost in practically all the cities of Alsace-Lorraine. The market in the country places should be visited by a demonstrator speaking Alsatian, while in the Saar territory he should speak German.

To the middle of 1931 this part of France had not suffered to any large extent from the world economic crisis, but the demand for pleasure cars fell perceptibly during the latter part of 1930. Sales of motor trucks for agricultural and industrial uses continued satisfactory and the general outlook had improved.

#### CALAIS

In 1929 there were 18,852 passenger cars and 7,317 motor trucks in circulation in the Department of Pas-de-Calais. Six per cent of the cars and half the trucks were over 9 years old. The large percentage of old vehicles has helped the market for replacement parts. Articles mainly in demand are spark plugs, lighting sets, pistons, piston rings, valves, bearings, glass, drive shafts, etc. Accessories sold currently include bumpers, bulb and electric horns, hand and mechanical jacks, luggage carriers, trunks and trunk racks, rear-view mirrors, tire pumps, shock absorbers, and wind-shield cleaners.

The "service station" as it exists in the United States is unknown here. The average garage sells one or two makes of automobiles, handles the more common parts and accessories, and does repairing. Electrical work is done by two concerns who do nothing else. The need of adequate service stations and efficient garage work is being felt. Gasoline pumps are in use, but oil pumps are unknown. There are no compressor plants for lubrication work in the district. The gasoline pump usually becomes the property of the operator upon the sale of a certain quantity of gasoline. Portable free-air machines are in the largest garages; car lifts are not in use. Electric current is available in 840 out of 905 communes of the Department. Prices of current for industrial purposes are \$0.03 per kilowatt-hour at Calais and \$0.06 per kilowatt-hour outside Calais. Garages possessing machine tools operate them generally by electricity.

Paris is the center of distribution for the Calais district. Some purchases are made from wholesalers at Lille. American parts sold are those for American cars, with the exception of spark plugs, brake linings, and a few standardized parts. Orders are made from catalogues. Local dealers state that French and German accessories maintain the lead on account of prices.

American-made garage equipment is very little used, aside from tools and simple appliances. A few British articles are also sold, but French goods predominate. The best method for entering the market is apparently through the medium of wholesalers located at Lille or Paris having access to the Calais district by traveling salesmen. The favor of local garage operators toward certain makes of parts and accessories must be gained in order to assure sales.

#### BOULOGNE-SUR-MER

American parts having a small share in the trade are spark plugs and ignition systems. A few Swedish ball bearings and English batteries are on the market, but the main volume of replacement-part sales are of French articles. The same is true of accessories, 90 per cent of which are French, the rest being American and German. High prices are the main obstacle to increased sales of American articles, whose superior quality is admitted.

Garage equipment in use is elementary. French vulcanizing apparatus, French and American roller jacks, drills, lathes, and ordinary tools are employed. Important repair jobs are often sent to Calais. The garage of a dealer in a low-priced American car has an American auto lift, a towing outfit of the same make, and a cylinder-boring machine made in Denmark. This firm is building a new 3-story garage and it may be in the market for other modern equipment.

Except for small stocks of the commonly demanded parts and accessories, dealers and garage operators order the articles immediately needed by telephone from Paris or Lille.

#### HAVRE

The population of the district, consisting of three Departments, is 1,700,000. The demand for replacement parts and accessories has steadily increased in recent years with the increase in motor-car circulation. Such goods are kept in stock by car agents, garages, and accessory dealers. Prices are approximately the same as at Paris.

Garage equipment is in greater demand with the building of new garages and the renovation of old ones. During 1930 six new garages were constructed at Havre. Electric current is generally available, but it is considered expensive and is not in use by all garages. The American participation in the garage equipment sale is small. It includes gasoline and oil pumps. Automobile lifts, air blowers, valve grinders, and compressors are largely of American or German make, the former being preferred. Lower prices give German small tools a 50 per cent cost advantage.

Distribution of American parts, accessories, and equipment should be made from Paris through a local subagency. Several large dealers have branches at Havre and Rouen.

#### CHERBOURG

The Cherbourg district comprises a region devoted chiefly to agriculture and stock raising. Dealers handling replacement parts and accessories are all retailers who supply themselves from French

manufacturers, wholesalers, jobbers, or foreign manufacturers' agents at Paris, 215 miles distant. There is no local manufacture or wholesale distribution. Cars and trucks in circulation increased by 50 per cent from 1926 to 1929, total figures for the latter year being 34,646, equal to one car per 29 inhabitants. About 75 per cent of the registered cars are Citroens, Peugeots, or Renaults. Large numbers of tourists bring their own cars to the district during the summer; they purchase a considerable quantity of replacement parts.

The American participation in the part and accessory trade is very small, owing to the restricted number of American cars in use. American articles found at some garages are spark plugs, electrical equipment, radiator heat indicators, electric wind-shield cleaners, electric horns, and bumpers. Higher prices, nonsuitability of many parts to French cars, and nonconformity to the metric system lose sales of American parts to French makes.

Distribution of parts and accessories is mainly through automobile dealers who act as agents for French cars and who operate garages. Agents for the three principal makes of French cars are required to install parts made by the respective car manufacturer, although they carry cheaper parts purchased from jobbers, for installation on old cars whose owners were unwilling to pay the price for the regulation parts. Local dealers recognize the superiority of American parts and would gladly purchase them if adapted to French cars and offered at prices equivalent to those for French-made parts. One effect of the trade depression has been to cause representatives of various domestic manufacturers to canvass local dealers and quote lower prices than those offered by Paris jobbers and wholesalers, through whom the goods were formerly sold. Garages have no exclusive arrangements for accessories, and all carry competitive lines.

There is a lack both of modern garage equipment and of trained mechanics. Only one garage at Cherbourg has such equipment as air compressors, auto lifts, high-pressure lubricating and grease-dispensing systems, and towing and salvage apparatus. In all the district probably five garages have modern equipment. The Citroen garages have American cylinder-boring machines. There are some German vanadium steel tools in use, the rest of the appliances, aside from those named, being French. Garage operators generally recognize the need of improved service, and it is believed that a favorable field exists for the increased sale of American equipment.

District centers of purchase are Cherbourg and St. Lo for the Manche Department, Caen and Lisieux for the Department of Calvados, and Alençon for the Department of Orne.

#### NANTES

There has been a normal provincial growth in the demand for replacement parts. French parts have by far the greatest sale, owing to lower prices and quick delivery from Paris. American parts account for about 10 per cent of all sales and American accessories for 2 per cent. The tourist traffic is not as heavy here as in some other parts of France. All dealers in automobiles handle accessories, a few of the largest on a wholesale basis, and there are some inde-

pendent retailers of accessories. American manufacturers, with one or two exceptions, are not well represented in the district. Sales of French accessories are said to be increasing their lead over foreign articles.

Some improvement in garage equipment has been noted, but there is much room for further improvement. American apparatus used comprises 12 or 15 per cent of the whole. Equipment most needed includes jacks, lifts, grease-dispensing pumps and guns, and hydraulic washers. The potential demand applies to brake-testing machines, paint-spraying apparatus, and to towing and salvage equipment. Centers of distribution are Nantes, Rennes, Angers, and Tours. Subagencies and wholesalers offer the best channels for American distribution in the district.

#### NICE

In the Department of the Alps-Maritimes, of which Nice is the chief city, the trade in parts and accessories is predominantly in French articles.

Sole agencies have been granted for some American manufactures, and the method has proved satisfactory where a "live" firm was chosen, but it is always advisable for a representative of the American concern to pay periodic visits of inspection and sales promotion if business is to be kept up.

The standard of commercial credit in the district is fairly high, but prudence is recommended before granting time to dealers. Drafts for acceptance at 30 or 60 days' sight, supported by letter of credit, may be offered firms of good credit rating.

#### GERMANY

**Market for Replacement Parts Slow, Accessories Demand Declining, Improved Business Conditions Expected to Open Good Field for Garage and Service-Station Equipment—Domestic Industry Supplies Greater Share of Demand**

Based on information received from: Assistant Commercial Attaché Douglas Miller; Berlin; Consul W. A. Leonard, Bremen; Consul Stephen P. Vaughan, Breslau; Consul George L. Brandt, Cologne; Consul George P. Waller, Dresden; Consul General Will L. Lowrie, Frankfurt on the Main; Consul General John E. Kehl, Hamburg; Consul Ralph C. Busser, Leipzig; Consul General Charles M. Hathaway, Munich; and Consul General Leon Dominian, Stuttgart

Motor-vehicle registrations as of January 1, 1931: Passenger cars 505,500, busses 12,000, trucks 161,900, motor cycles 725,000.

The present market for replacement parts in Germany is slow, owing to the economic depression, the decrease in car imports, and the fact that many owners have retired their cars from operation because of the financial expenditure necessary to keep them in running order. One favorable factor in this trade, however, is the continued sale of small and less-expensive American cars, or cars of American types which are to a greater extent being manufactured in Germany, and for which replacement parts can be advantageously supplied from the United States. This trade is characterized by keen competition from German producers who are increasing their business because of low prices and their ability to effect immediate delivery.

The demand for accessories has been affected by the growing tendency toward simplicity in the outward appearance of motor cars and the subsequent decline in the demand for exterior accessories. The American share of the present accessory trade is approximately 10 per cent of the total. The sale of American accessories is adversely affected by the low prices quoted by German manufacturers.

Garage service facilities are inadequate in most districts in Germany, although gasoline service stations are constantly increasing and showing more rapid progress than garages and repair shops. There is a definite tendency, however, toward modernizing German service stations and garages, and the future opportunities for the sale of American equipment are believed to be good, although this trade is also characterized by keen competition from German manufacturers, particularly in the case of special machines.

The remainder of this report is devoted to comments on the markets in eight leading German trade centers. Certain conditions, such as the existence of keen competition from domestic manufacturers, practice of those manufacturers of quoting liberal terms, etc., are fairly uniform throughout all Germany. However, it is believed that a brief discussion of these separate markets will be of interest to American manufacturers planning sales campaigns in Germany.

## BREMEN

### REPLACEMENT PARTS

The increasing number of American automobiles sold in recent years in northwestern Germany has stimulated the demand for American-made replacement parts. German automobiles exceed American makes, but the American participation in this trade is confined almost entirely to supplying the demand for American-type cars. In the Bremen district, roads are good enough so that springs are not easily broken and a car is not subjected to undue wear and tear. Parts most in demand include bearings (ball and roller), bolts, brake linings, fan belts, spark plugs, generators for starting and lighting, piston rings, and clutch facings.

Hamburg is more important than Bremen as a distributing center for parts in northwestern Germany. Berlin also is an important distributing point for this territory. Distribution is effected through a number of wholesalers and dealers who obtain their supplies from a central point. The usual terms offered to distributors of both American, other foreign, and domestic lines are 90 days after date of invoice, or draft at 90 days sight. There is very little competition other than with German products, but the local preference for German products and the low prices which are being quoted on the German lines have created difficult obstacles to the greater sale of American parts.

### ACCESSORIES

Accessories most in demand are body hoists, hoods, radiator and tire covers, glare eliminators, theft-proof locks, lubricating systems, rear-view mirrors, shock absorbers, tire gauges, seat covers, and wind-shield cleaners, hand and electric. Accessory dealers generally carry stocks, and competitive lines are frequently handled by the

same company. Competition, both domestic and foreign, is keen and largely based on price. German products supply the principal competition, while some French and other European lines are sold in negligible quantities. German manufacturers have gained at the expense of American lines, owing to lower prices, especially in recent months.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Much progress has been made in this district in providing adequate automobile-service facilities. Large and modern filling and service stations have been erected in Bremen and in nearby towns, and along the principal highways. Most of the equipment installed in these stations has been of domestic manufacture. The American participation in this trade is largely restricted to special equipment, such as car washers and garage tools. Although there is a definite tendency to abolish the small stations and replace them by larger facilities, thus creating opportunity for the sale of service equipment, the local preference for domestic products will be a difficult obstacle to the development of a materially increased American participation in future trade.

Most lines of garage equipment are in demand in this territory at present, with the exception of paint-spraying equipment, portable drills, reamers, and wheel-alignment equipment. Local dealers believe a favorable market for paint-spraying equipment might be created if small equipment suitable for German purposes were offered. Paint sprayers are little used by garages. An American car washer is in use at a Bremen garage, but a material increase in demand for this equipment is not expected soon. Several German manufacturers have attempted to introduce air compressors into the market, but without success. Portable motor air pumps are preferred by practically all garages, although some demand for compressors has been created by the recent installation of a few air towers.

Tires are largely changed by hand tools, and tire repairing is usually done by the "Vulkanisieranstalten" (vulcanizing shops), but some accessory dealers also have facilities for repairing tires.

In the absence of a direct American traveling representative, the best selling method in this district is through manufacturers' agents or large wholesalers. Usual terms are three months cash or bill of exchange, although longer terms are sometimes granted by domestic manufacturers.

#### BRESLAU

##### REPLACEMENT PARTS

The demand for replacement parts has been retarded by the relatively slow motorization of Silesia, while the prolonged depression in this territory has proved a further obstacle to the development of the motor trade. There is no domestic industry in Silesia manufacturing parts in large quantities, but the local market is supplied to a great extent by factories in southern and western Germany. The trade in American-made parts is practically restricted to the demand for American-type cars, but even the participation of American parts in this trade is much smaller than the percentage of



American passenger cars in operation in the district, which is estimated to be about 40 per cent.

There is always a fair demand for such rotating parts as pistons, piston rings, crank shafts, gears, etc., and there is also a steady demand for brake linings, spark plugs, valves, and springs. American spark plugs and brake linings are popular, but even in this trade the bulk of the demand is supplied by German producers.

Breslau is the logical distribution point for the two Provinces of Upper Silesia and Lower Silesia. Most foreign replacement parts are handled by agents who operate out of this city. Terms granted by German factories are very liberal, and reputable firms and dealers in good standing are extended 30 days' credit or more, and a 2 per cent discount for payment during this period. German companies are also willing to place consignment stock with local dealers without security. Parts taken from these stocks are accounted for monthly, and the terms for payment go into effect at the end of the month in which the sale is made.

Competition between German automobile manufacturers producing "original" parts, and "independent" parts manufacturers has always been keen in this district, but the recent action of the automobile manufacturers in slashing prices of "original" parts has left them in complete control of the market. "Independent" manufacturers have also reduced prices in an attempt to recover the trade, but with no material success as yet. The general preference in this territory for "original" parts, particularly expensive parts such as complete axles, gears, motor assemblies, etc., has proved an obstacle to the development of a greater business in lines manufactured by American manufacturers of "nonoriginal" parts. Although German manufacturers have almost complete control of this market, it is believed that the increasing interest shown in cars of American origin or types should present opportunities for a greater trade which might be obtained by popularizing American parts through the introduction of American sales and advertising methods.

Parts are generally advertised in this district through German advertising agencies and local newspapers. There are no important or outstanding trade papers published in Silesia covering the automobile trade.

#### ACCESSORIES

The accessory trade in this district is on the decline. Accessories most in demand are electrical supplies, particularly horns, lights, and windshield cleaners, while such products as luggage carriers and trunk racks, locks, lubricating systems, taximeters, and speedometers are in relatively small demand. Until recently, practically all accessories sold were of German production, and German products still constitute a large bulk of the sales. However, American accessories have now entered the market, and it is estimated that about 10 per cent of the total sales are of American manufacture.

American accessories are distributed through the large importers in Berlin and Hamburg. Generally, only small stocks are carried by dealers, who usually handle competitive products. It is customary to grant credit of from 30 to 60 days to dealers in good business standing. German factories prescribe the retail prices in

this line, and the net profits average approximately 25 per cent; but, on account of the keen competition local manufacturers, some factories allow a profit of even 33 $\frac{1}{3}$  per cent to dealers.

The proximity of local manufacturers to this market, the keen competition between those manufacturers, and their liberal credit policies offer serious obstacles to American trade in accessory lines. It is believed that the appointment of agents or subagencies in Breslau would be the most effective way to introduce American accessories into the district.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Small garages and even smaller repair shops are numerous in this district, but the absence of up-to-date equipment is noticeable. In general, the provision of satisfactory and adequate service-station facilities have not kept pace with the improvement and progress of other lines in the automobile industry. Practically all of the equipment in this district is of German manufacture, and American participation in this trade is limited to such lines as valve grinders, garage tools, polishing machines, and car washers, which are particularly needed at the present time. Both hand and mechanical tools are used to change tires, and tire repairing is done mostly in shops specializing in vulcanizing.

Breslau is the logical distribution center for garage and service-station equipment, although stocks might be maintained in Hamburg and Berlin and the district worked through sales agents.

### COLOGNE

#### REPLACEMENT PARTS

With a total of 219,732 motor vehicles in Cologne on July 1, 1930, it is estimated that about 30 per cent are of American origin or type. This popularity of American vehicles is also reflected in the demand for replacement parts of American origin, for which the demand is growing. German manufacturers are particularly strong in the trade in plain bearings, "Continental" fan belts, "Bosch" spark plugs, radiator caps, stampings, forgings, body hardware, body upholstery material, steering wheels, "Krupp" auto frames, "Bosch" starting and light generators, and "Krupp" rims and rim parts. There is a marked local preference for American lines of brake linings, clutch facings, driving or timing chains, springs, valves, gears, pinions, drive shafts, shims, and shim stock. There is practically an equal demand for such products as ball or roller bearings, bolts, bushings, pistons, piston pins, and piston rings.

German lines are, with few exceptions, regaining the territory lost to foreign, especially American, lines during the post-war period. Friedrich Krupp Aktiengesellschaft, of Essen, for example, has developed an automotive line including the manufacture of replacement parts, especially frames, rims, axles, shafts, and bearings, which are now competing successfully with American products. Similarly, the spark plugs manufactured by Robert Bosch Aktiengesellschaft, of Stuttgart, have, with one exception, almost entirely supplanted foreign lines during the past few years.

As a third instance, the Continental Caoutchouc & Guttapercha Co., of Hanover, the largest German rubber-tire manufacturer, has appeared on the local market recently with fan belts, brake linings, and clutch facings. These lines are said to have displaced competing American makes in this district to a considerable extent. Foreign competition in the spare-parts market, other than American, is unimportant, with the exception of the British-made "Brampton" chains, which enjoy good demand here. Other foreign replacement parts which were once in good demand, such as, for example, the British-made "Lodge" spark plugs, have either been superseded by American makes or by domestic lines.

All individual motor-car dealers stock spare parts for their particular makes of cars. In addition, there are numerous independent part dealers who stock replacement parts for all of the more popular cars. As a rule, these dealers purchase their supplies direct from manufacturers in Germany or in the United States, although certain of them draw supplies from intermediate sources, usually Hamburg, Rotterdam, or Antwerp importers. A third outlet for the distribution of parts are the repair-shop owners, who ordinarily do not import direct but buy from the wholesale trade. It has also been observed recently that the large garages and service stations are keeping their own stocks of the most current types of replacement parts.

The usual terms offered to distributors and dealers of German lines in this market are 30 or 60 days, depending on the size of the order. Cash against documents or the establishment of irrevocable letters of credit in New York banks are the terms customary in the import trade of American parts.

Advertising is effective in the more important weekly or monthly trade journals, for which Berlin is the center of publication. Only one monthly, "Motorsport des Westens," is published in this district. Another effective means of propaganda employed is the exhibition at trade fairs which are regularly held at various cities in the district. However, the annual spring and fall fairs at Cologne are generally regarded as of little value to the automotive trade.

#### ACCESSORIES

The growing tendency toward simplicity in the outward appearance of cars has reduced the demand for many accessories, particularly such items as radiator caps, motor meters, bulb horns, parking lights, controllable driving lights, rear-view mirrors, and reserve gasoline tanks. There is no market here for American electric horns, rear lights, and license plates, because of different local police regulations.

German manufacturers lead in such items as bumpers, nonskid chains, radiator-hood and tire covers, horns, hand jacks, lamp lenses, license plates, lights, luggage carriers, mirrors, tire pumps, radiator shields, tire gauges, and seat covers. American lines have a good share of the trade in mechanical jacks, radiator shutters, shock absorbers, windshield visors, windshield cleaners, and windshield wings. No particular preference exists in the trade in body hoists, motor meters, locks, lubricating systems, and speedometers.

While in former years every individual automobile dealer used to stock the most current accessories, a definite trend has been noted in this district toward distribution by special accessory dealers, most of whom also handle replacement parts. Distribution of German products is effected through offices maintained in the larger cities, through which the trade of the district is supplied, while some firms sell through the medium of traveling salesmen or agents on a commission basis. The distributing offices carry full stocks, while the agents generally sell by means of samples and catalogues. Some foreign lines are distributed by wholesaling importers, while others are handled by commission agents.

German manufacturers usually request payment within 30 days after delivery, with a rebate of 2 to 5 per cent of the invoice price for cash payment immediately. Recently, however, these terms have been considerably more liberal. Requests for more liberal terms to be granted by American manufacturers should, however, be closely scrutinized in view of the economic depression, which has involved numerous failures in the motor trade in this district.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Although the development of service stations can by no means be compared with that in the United States, their number has grown considerably during the last few years, and many old garages in cities in this district have been modernized, while new ones with full service equipment have been built especially on the outskirts of the leading cities and on the main roads connecting neighboring towns. German manufacturers lead in such lines as battery chargers, car washers, cranes, garage tools, mechanical jacks, oil and grease guns, oil-dispensing pumps, portable drills, reamers, towing and salvaging equipment, welding outfits, and wrenches. American lines are strong in the trade in air compressors, brake-testing machines, cylinder-boring machines, gasoline pumps, hydraulic jacks, chassis-lubricating systems, paint-spraying equipment, polishing machines, and tire-repairing machines. No particular preference is shown in the trade in auto lifts, valve grinders, and wheel-alignment equipment.

The popularity of many American lines of garage and service-station equipment in western Germany leads to the belief that there is an attractive market in this territory for an extension of the trade in American products. The German industry, however, has been highly developed during the last few years and is obtaining an increasing share of the growing demand for equipment.

In the Cologne district the manufacture of garage steel tools, such as jacks, reamers, and wrenches, is particularly important, centering in the town of Remscheid. This industry is rather extensive and of international importance, since more than 60 per cent of the total production of the Remscheid district is shipped annually to foreign markets. Other equipment for garage use, such as cranes, cylinder-boring machines, and portable drills, are made by the Krupp Aktiengesellschaft and other large machine manufacturers in this district as a side line. The local production of other garage equipment is of minor importance.

Hand tools are generally used for the changing of tires. Small tire repairs are generally done in garage and service stations, while large repairs are made in special vulcanizing stations.

Garage and service-station equipment is distributed mainly through manufacturers' representatives operating on a commission basis, and shipments are usually made direct from the manufacturers to the customers. Representatives usually receive a commission of from 7½ to 25 per cent, while retailers generally sell at a profit of about 25 per cent of the list prices. In the more expensive lines the purchaser expects a discount of 5 per cent or more for cash payment. German manufacturers often invite reliable prospects to use a machine on trial for a month or more before purchasing. From the viewpoint of increasing American trade in this district in these lines, it is believed that consideration should be given to the establishment of a general agency in one of the leading commercial centers and the appointment of subagents in various cities in the district. It is reported that many garage owners have endeavored to obtain American goods, but in the absence of American catalogues or visits from agents of American manufacturers they have often purchased domestic or other foreign products.

It is believed that this populous and highly industrialized section of Germany could be more intensively developed by American manufacturers of this equipment.

## HAMBURG

### REPLACEMENT PARTS

Development of the market in this territory for American-made parts depends to a less extent than formerly upon the number of American cars in operation, since many German manufacturers are to-day supplying some parts for American as well as German cars. Replacement parts in greatest demand are ball and roller bearings, piston pins, gears, generators, fan belts, drive shafts, coils and other electrical parts, connecting rods, ammeters, pinions, etc. Hamburg is the only distribution center of importance. Distribution channels are various, embracing importers and wholesalers, as well as manufacturers' representatives and general representatives with local subagents. In order to compete successfully with German manufacturers, it is essential that American firms desiring to enter this market should maintain stocks somewhere in Europe, preferably somewhere in Germany, so as to be able to effect prompt delivery.

Competition from German manufacturers is very keen, not only because of lower prices and liberal credit terms but also because of the ability of these manufacturers to deliver promptly.

The usual terms granted to dealers handling American parts are 30, 60, or 90 days' credit against acceptances. Charges for bank collection expenses are also added. German manufacturers usually grant 90 days' credit without interest charges.

An important requirement with which American manufacturers should under all circumstances comply (and this refers not only to this district but to all of Germany), is the distribution of catalogues printed in the German language and marked with German sizes—that is, in the metric system.

## ACCESSORIES

The existing demand for accessories is reported to have decreased to an absolute minimum in comparatively recent times. The American share in this trade is small, and German products predominate. American accessories still enjoy a certain demand in nonskid chains, lubricating systems, special tire pumps, tire gauges, and a few other minor items. German lines in greatest demand are bumpers, radiator covers, tire covers, hood covers, shock absorbers, temperature indicators, tire gauges, seat covers, windshield visors, windshield wings, cigar lighters, etc. Accessories are generally marketed through manufacturers' representatives or importing wholesalers to dealers, the latter including garages and repair shops. Dealers ordinarily expect to operate on a profit margin of from 30 to 50 per cent. The usual terms in this trade vary somewhat, and credit of from 60 to 90 days is frequently granted. For cash payments a discount of from 2 to 5 per cent is usually expected.

## GARAGE AND SERVICE-STATION EQUIPMENT

Great progress has been made in recent years in providing adequate automobile service facilities. The number of garages in Hamburg has increased from about seven in 1924 to several hundred at the present time. The average capacity is about 20 cars each. In 1924-25 it was estimated that approximately 80 per cent of the service-station equipment was American. During subsequent years, however, this percentage has decreased considerably, and German manufacturers are now figuring strongly in the trade in practically all lines.

There is a limited but steady demand for most of the items such as air compressors, auto lifts, battery chargers, general tools, oil and grease guns, valve grinders, and the like. Although all of these are manufactured in Germany, there is a limited demand for some American products such as car washers, brake-testing machines, wheel-alignment equipment, high-pressure chassis-lubricating systems, and grease-dispensing systems. These and some other American lines are able to sell on a basis of high quality.

Tires are largely changed by hand tools, and most of the repair work is done by special vulcanizing stations, of which there are about 20 in Hamburg. Tire work is also done by the larger garages.

Garage equipment is best distributed in this district through a manufacturers' representative who is able to cover the entire territory and personally approach prospective customers. Customary terms at present are cash against documents. Trade would undoubtedly be aided by granting longer terms and by the maintenance of stock from which prompt deliveries could be made.

Hamburg is the only distributing center of any importance. Kiel and Luebeck look to Hamburg for their needs.

## LEIPZIG

## REPLACEMENT PARTS

Increasing German competition has cut into the American participation in this trade. German competition is particularly keen in such lines as fan belts, bearings, spark plugs, body hardware, body

upholstery material, generators, rims and rim parts, and is considerably less important in the trade in bushings, springs, pistons, forgings, gears, pinions, drive shafts, and frames.

Distribution is effected almost entirely through the franchise dealers of the various makes of automobiles, although some garages also supply a small share of the demand.

#### ACCESSORIES

Accessories in greatest demand in this district are heat indicators, hood, radiator, and tire covers, bulb and electric horns, lenses, luggage carriers, mirrors, tire pumps, windshield wings, electrical windshield cleaners, tire gauges, and shock absorbers, while there is a very limited demand for theft-proof locks, horns, bumpers, windshield visors, and similar lines. In most of these lines, however, German competition is extremely keen and German manufacturers have been able to cut through a very large share of the market demand.

Accessories are distributed in this district mainly by garages, service stations, and accessory, specialty shops. Some firms purchase direct from German manufacturers through their representatives, but the smaller garages and service stations buy from accessory wholesalers. Many foreign lines are handled by importing wholesalers located in Leipzig, while others are sold through agents operating on a commission basis.

#### GARAGE AND SERVICE-STATION EQUIPMENT

High prices are given as the reason for the lack of American equipment in this district. Garage owners state that the volume of business is too small to make it practical for them to install American equipment, notwithstanding the greater efficiency which might result from the use of that equipment. Leipzig and other cities are equipped with adequate facilities for servicing automobiles. Mechanical equipment is used to a large extent, and this is mostly of German manufacture.

#### DRESDEN

##### REPLACEMENT PARTS

The demand for parts in this district has naturally increased with the growing motorization of the Free State of Saxony. While the local demand is largely supplied by domestic manufacturers, fairly large quantities are imported from the United States. The proportion of foreign cars (mostly American) in operation in Saxony has been steadily increasing during recent years and has resulted in a rather steady growth of the demand for American parts.

The leading distribution centers are the cities of Dresden, Chemnitz, and Plauen. While certain items are handled by dealers in automotive accessories, the leading channels of distribution for parts are the automobile dealers representing the various manufacturers.

The usual credit terms are payment within four weeks from date of invoice (with discounts of 2 to 3 per cent for cash), and three months' acceptances.

Parts are advertised in the important daily newspapers, as well as by posters and the various automotive trade papers and journals, which are largely published in Berlin.

#### ACCESSORIES

Until recently, there was a fairly satisfactory demand in this district for accessories. Lately, competition from domestic manufacturers has increased, but there is still a considerable demand for such American-made accessories as body hoists, bumpers, non-skid chains, electric horns, theft-proof locks, radiator shutters and shields, shock absorbers, and tire gauges. American accessories are largely purchased by local dealers from exclusive distributors purchasing for their own account, as well as from the large wholesale and importing houses in Berlin and Hamburg.

The best method is believed to be through an exclusive distributor who is able to carry ample stock. Such distributors could be located in Berlin, Hamburg, or Bremen, and handle their business through subagents located in Saxony.

The usual credit terms are payment within four weeks after date of invoice with discounts of 2 to 5 per cent for cash. Payments by three months' acceptance are also fairly frequent.

#### GARAGE AND SERVICE-STATION EQUIPMENT

The number of garage and service stations in this district has increased considerably in recent years; there are now about 20 garages and stations located in the city of Dresden alone.

German manufacturers are supplying an increasing share of equipment, but a considerable amount of American products, particularly such as brake-testing machines, cylinder-boring machines, garage tools, paint-spraying machines, tire-repairing equipment, valve grinders, and wrenches are imported from the United States.

Tires are changed largely by hand tools, and tire repairing is mostly done in special repair shops.

Service equipment could best be handled in this territory through the efforts of factory representatives or, as an alternative, a large importing wholesaler, equipped to cover the district adequately.

Terms granted in this district are similar to those granted in the trade of replacement parts, although longer terms are not infrequent.

### MUNICH

#### REPLACEMENT PARTS

It is roughly estimated that the American share in this trade is approximately 20 per cent. Replacement parts most in demand are bushings, clutch facings, driving or timing chains, spark plugs, valves, pistons, piston pins, piston rings, forgings, body hardware, gears, pinions, drive shafts, steering wheels, starting and lighting generators, and rims and rim parts.

German competition is particularly keen in bearings, bolts, bushings, springs, pistons, piston rings, fan belts, spark plugs, and roller bearings, which are being delivered to dealers at approximately 50



per cent under American parts. Competition from English, French, and other foreign manufacturers is not believed to be increasing.

Parts are distributed largely by automobile dealers who purchase ordinarily from importing wholesalers located in Berlin, Hamburg, Cologne, or Coblenz. Local dealers usually have to pay for American spare parts upon arrival of goods and receive 30 to 40 per cent from list prices. German parts are sold for the most part on the basis of one half cash upon delivery and the other half payable within one month, with 30 to 40 per cent off list prices. The low prices and liberal credit terms of German companies account to a large extent for their success in this district.

#### ACCESSORIES

The demand for accessories has declined substantially in the past two years and the American share in the local trade is now estimated at between 20 and 30 per cent, whereas up to a short time ago it was more than 50 per cent.

Accessories most in demand are bumpers; chains; electric horns; hand and mechanical jacks; lamp lenses; head, rear, stop, and parking lights; lubricating systems; rear-view mirrors; tire gauges; hand and electric windshield cleaners.

Accessories of German manufacture are marketed in this district mostly by wholesalers who purchase direct from the domestic firms. The larger wholesale firms also stock limited quantities of American accessories, and a small percentage of these sold in the market is also imported direct from the United States. Most of the American supplies, however, are purchased from agents of American factories, located in Berlin or Hamburg.

The higher price of American lines has hindered the greater development of their sales. Local trade opinion holds the view that prospects for further extension of the trade in American-made accessories are not bright, unless American manufacturers are willing to establish in Germany central sales organizations with large stocks of the latest types of accessories always on hand, from which small orders of local dealers could be promptly supplied.

German factories generally grant accessory wholesalers 40 per cent off list prices with a further 5 per cent for cash. Wholesalers grant retailers and garages 10 to 30 per cent. Wholesalers are supplied by many German factories with stocks on consignment.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Much progress has been made in the larger cities in Bavaria in the provision of more garages and repair shops. Most of the equipment in these establishments has been of American origin, but during the last year German factories have made heavy inroads into the American share of this trade.

Garage and shop equipment most in demand at present includes automatic lifts, car washers, cylinder-boring machines, high-pressure chassis-lubricating and grease-dispensing systems, oil and grease guns, and valve grinders. The only equipment manufactured in Bavaria is the "Steinbock" portable car lifter, manufactured by Steinbock Aktiengesellschaft, Moosburg.

Hand tools are largely used for the changing of tires, although in the large garages only mechanical equipment is used. Most tire repairing is done in garages and repair shops.

The most suitable method of distribution in this district is believed to be through manufacturers' representatives who would be able to attend to the entire territory. Most German factories are delivering goods on consignment or selling on general credit terms. These practices are of material assistance in meeting the large competition. The logical distribution centers in Bavaria are Munich, Nuremberg, Augsburg, Regensburg, and Wurzburg.

## STUTT GART

### REPLACEMENT PARTS

Parts most in demand in this territory are plain, ball, or roller bearings, brake linings, bushings, spark plugs, valves, pistons, piston pins, rims, and rim parts. As a result of the increasing popularity of automobiles of American manufacture or type, there has been a steady and increasing demand for replacement parts imported from the United States.

Although American replacement parts are strong in demand in this territory, there is evident, as in other parts of Germany, increasing competition from domestic manufacturers. There is very little foreign competition aside from that offered by American manufacturers.

The leading distribution centers are Stuttgart, Mannheim for Baden, and Wurtemberg for Stuttgart and Ulm. Distributors of American and other foreign-made parts are usually quoted sight-draft terms or, if good references can be submitted, 90 days' draft.

One feature of the local trade in this territory is the strict regulations which govern the question of suitable lighting of automobiles. In some cases American lighting equipment has been criticized, and for that reason the products manufactured by Bosch have been able to make considerable inroads into the American share of this trade.

There is a definite trend in this district toward distribution of parts through automobile dealers. It is believed that most effective coverage could be secured by exclusive representatives rather than jobbers who often carry too many lines and who will seldom agree not to carry competing articles of German construction. It is reported in Stuttgart that German manufacturers of replacement parts are strengthening their sales organizations and contemplating an extensive campaign in the future to attempt to supply this market.

### ACCESSORIES

The demand for accessories is at present small and decreasing. American participation is small. Accessories most in demand include lenses, lights, horns, luggage carriers, and trunk racks. Accessories are distributed largely through exclusive distributors purchasing on their own account and selling direct to dealers. Stocks are usually carried, but to a limited extent. Competitive lines are often handled by the same distributors. The usual terms are sight draft or 90 days' draft.

Accessories are handled by accessory dealers, garages, and car agencies, and by a few of the larger service stations.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Service facilities in the larger cities are fair, but the equipment in use for the most part is not modern. Rural districts have few garages and poor equipment. American equipment is known and liked, but is not used extensively. German lines are becoming increasingly active in this territory.

Equipment most needed includes auto lifts, brake-testing machines, car washers, jacks, lubricating systems, wheel-alignment equipment, portable drills, tire-repairing machines and changers, and vulcanizers. Tires are largely changed by hand with small hand rim tools, and a fair market seems to exist for modern tire-changing apparatus.

Distribution at present is through direct purchase from the factory, domestic or foreign, from a manufacturers' representative operating on a commission basis, or through an exclusive wholesaler operating in one of the larger European distribution centers.

#### GENERAL REMARKS

It is evident from these reports that the German market for practically all types of automotive equipment is characterized by increasingly keen competition from domestic manufacturers who enjoy a strong position because of their proximity to the market, low prices, and liberal credit terms. In attempting to meet the question of proximity, it might be advisable for American manufacturers, who feel that future prospects justify such action, to consider the establishment of a central distributing point, either in Germany or in a neighboring country, from which supplies could be immediately delivered from stock. The ability of American companies to meet the competition offered by low prices and liberal terms is a question which must be decided according to the policies of each manufacturer.

While the German practice in this regard is certainly a strong obstacle to American sales at the present time, it must be remembered that the advantages of low prices and liberal terms are always emphasized during a period of economic depression, and that during such times it is difficult to obtain a clear picture of the real effect upon the market of such policies. There is no doubt, however, that every American manufacturer interested in developing the German market should realize the importance of this question and should have a definite understanding of the effect of his own price and credit policy upon the future of his products in Germany.

It is obvious that good opportunities exist for American manufacturers in the field of garage and service-station equipment, in spite of increasing German manufacture of service appliances. Competition from German companies is increasing rapidly and probably will continue to do so, but the interest in better automobile service facilities is also increasing, and the good reputation which many lines of American equipment enjoy holds promising prospects for further extension of sales.

## GIBRALTAR

### Demand for Replacement Parts Limited, Accessories Small, Garage Equipment Negligible—Limited Area and Small Population Restrict Market Possibilities

American Consul R. L. Sprague, Gibraltar

Motor-vehicle registrations as of January 1, 1931: 507 passenger cars, 43 busses, 101 trucks, and 47 motor cycles.

Owing to the restricted area of the Rock of Gibraltar—2½ square miles—and a small permanent population of about 18,000, the number of motor vehicles can hardly be expected to show any material increase, and the market for parts, accessories, and garage equipment is a limited one.

The length of roads open to traffic is about 14 miles, all of which are in excellent condition and suitable for motor traffic. Roads in the city are narrow and those outside the garrison are fairly wide.

### REPLACEMENT PARTS

Gibraltar is not a distributing center for parts, and those now imported are solely for local needs in essential wearing parts. At one time there was a fair demand from Spain for these parts, but since the increase in the Spanish customs duties this reexport trade has ceased.

The only firms which carry small replacement parts are the agents of three well-known American and one British automobile. The larger replacement parts are as a rule obtained from Spain, orders being given by telephone and deliveries made within a few days. As this trade is unimportant, these agents prefer to order in this manner rather than carry stocks.

Replacement parts for all other makes of automobiles are ordered direct from the manufacturer or from distributing agents in Spain.

For some time past there has been a marked decrease in the sale of replacement parts, and, owing to the depression in the general trade, owners of cars do not use them as much as heretofore. Other reasons given are not only the great improvement in the cars but also the good condition of the main roads throughout Spain.

Competition between local dealers is not very keen; advertising is done to a small extent.

### ACCESSORIES

As all the automobiles arriving here are equipped with essential accessories, the demand for nonessentials, such as radiator caps, ornaments of any kind, dash clocks, spot lights, body trimmings, etc., is very small. These are of American, British, and French origin and are obtained direct from the manufacturers, and purchases are made for cash with the usual discount of 33½ per cent. When orders are small these goods are purchased from distributing retailers in the United States, Great Britain, Spain, and France.

Accessories usually kept in stock by retailers are horns, lamp lenses, lamps, luggage carriers, mirrors, tire pumps, tire gauges, wind-shield wipers, etc. Other accessories and novelties not stocked are specially ordered when required.

It is estimated that the American share of this trade is about 55 per cent. Little or no competition exists, and advertising, at infrequent intervals, is done to a small extent in local newspapers.

Accessories are sold at the principal local garages, which represent two well-known American automobiles, and by hardware dealers, who are also interested in the sale of cars and carry these goods as a side line.

The present dullness in this trade is ascribed to the adverse economic situation of Gibraltar and the depreciation of the Spanish peseta. The outlook is not very encouraging for any marked growth in this business.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are three garages in operation here and four small repair shops, the latter of little importance, all of which are sufficient to attend to existing business. Two of the garages outside the city proper are used principally to house a limited number of automobiles and carry out minor repairs. The third garage, which is in the town itself, has a capacity of about 100 cars. It has a staff of good mechanics and is well equipped with modern machinery, 80 per cent of which is of American manufacture. No equipment is made locally.

No new garages are being opened and no market at present exists for new equipment, and purchases are entirely confined to replacements and minor items for improvements.

The garages are privately owned and the proprietors represent and deal in well-known American and European cars.

Machinery is operated by electricity from the town supply. The current is alternating current, single phase, 76 cycles, 110 volts, and the prices charged per Board of Trade unit are \$0.06 for power and \$0.14 for lighting.

Tire changes are made by both mechanical and hand tools, principally the latter. Tire repairing is usually done by the car drivers and also at the garages.

Gibraltar is not a distributing center, and all local requirements are obtained from the manufacturers or from distributing retailers in the United States, Great Britain, or Spain.

This business is so limited that it would not warrant the appointment of a local agent, but in the event of any American firm having a traveling representative in Spain, Gibraltar might be included in his district when visiting southern Spain and Morocco.

### GREECE

**American Participation in the Parts and Accessories Business Important but Steadily Losing Ground to Continental Manufacturers—Use of Garage and Service-Station Equipment Decidedly Limited**

*Acting Commercial Attaché Ralph B. Curran, Athens*

Motor-vehicle registrations as of January 1, 1931: 13,500 passenger cars, 1,000 busses, 4,750 trucks, 700 motor cycles.

#### SOUTHERN GREECE

The territory of southern Greece comprises continental Greece, Thessaly, Epirus, Peloponnesus, Crete, and the Ionian and Aegean

Islands. The distributing centers for southern Greece are the cities of Athens and Piræus.

Official automobile registration figures for southern Greece are not available. It is estimated, however, that about 15,000 motor vehicles are in actual operation throughout the entire territory. About 10,000 passenger cars, trucks, and busses are believed to be running in and about the cities of Athens and Piræus. Of the total of 15,000 units, no less than 11,000 are passenger cars. Eighty-five to ninety per cent of all the motor vehicles in use in southern Greece are of American manufacture.

#### REPLACEMENT PARTS AND ACCESSORIES

It is practically impossible to draw a clearly defined line of demarcation between parts and accessory dealers in Athens. All the firms engaged in the automotive-supplies trade handle indiscriminately replacement parts and accessories, although of the two, the parts line is naturally the most important. A large share of the parts business is, of course, transacted by the automobile distributors who carry a complete stock of parts of the particular make of car and/or truck which they represent.

The accessories and parts market in Athens is at present passing through a period of depression. The wholesale importers have suffered rather heavy losses as a result of the general decline in the prices of automotive products, which found the majority of them with stocks purchased at high prices. In addition, the very keen competition that developed during 1930 tended to curtail the dealer's margins of profit to such an extent as to make the automotive accessories and parts business a losing proposition for all except a few of the larger importers. The general complaint among the principal automotive-supplies dealers in Athens and Piræus is that they are forced to sell on 10 per cent to 15 per cent profit, which is barely enough to cover their expenses. The result of this situation is reflected in the difficult financial position of the majority of the accessory and parts importers in Athens, most of whom find it extremely difficult to meet promptly their obligations to foreign manufacturers and exporters.

Another evidence of the weak financial position of many of the accessory dealers is the fact that goods ordered by them on credit often remains in bonded warehouses for a month or two before they can raise the money required for clearing the shipments through customs. It is not an unusual occurrence for some of the smaller importers to sacrifice from time to time a portion of their stock at prices 10 to 15 per cent below cost in order to obtain the funds necessary for paying an overdue draft or other pressing obligations. The result is that the larger importers can very often replenish their stocks of parts locally at much lower prices than if they had ordered the same goods direct from the manufacturers. American producers should exercise a great deal of precaution in granting credit terms to local parts and accessory importers and should check up on the financial standing of their customers in Greece at least every six or seven months.

Owing to the bad roads in Greece outside the cities of Athens and Piræus, the demand for replacement parts in general is very

active. There is also a very strong demand for batteries, spark plugs, springs, pinions, bevel gears, and axles. On the other hand, accessories such as heat indicators, mirrors, glare eliminators, wind-shield wipers, etc., are considered luxury items and are very little in demand.

American-made parts and accessories are popular in Greece and enjoy a high reputation for quality. Until about two years ago, no less than 95 per cent of all the replacement parts consumed in Greece on American cars were imported from the United States. Since the middle of 1929, however, continental manufacturers have gained considerable ground until they now control at least 15 per cent of the replacement parts trade for American cars and as much as 60 per cent of all the accessories imported into the country. This, of course, was due to the much lower prices offered by European manufacturers and exporters, which more than overbalanced the difference in quality between their products and those of American manufacture. Price was, and still continues to be, a very important consideration for the Greek importer and consumer of automotive products and parts, as the depressed condition of business makes it essential for the dealers to try to overcome as much sales resistance as possible by selling a very low-priced line, and for car owners to reduce immediate repair charges to the minimum, regardless of the ultimate cost of operation.

The principal items imported from European sources are as follows:

Bearings come principally from Sweden, France, Austria, and Germany. The Swedish S. K. F. Co. maintains a branch office in Athens which keeps a full stock of ball and roller bearings for all the popular makes of American and European cars. On the average, the prices of European ball bearings are from 30 to 50 per cent lower than those quoted by American manufacturers. The heavy import duty levied on automobile springs automatically places all imported springs at a disadvantage with those made locally from leaf steel, which is subject to a nominal customs duty. The domestic industry can fill at present only a small portion of the demand, but it is growing rather rapidly, and the rather primitive equipment originally used is gradually being replaced with modern machinery imported from the United States and Germany. The leaf steel used is exclusively imported from Germany. In addition, automobile springs are also imported on a large scale from Germany and France, and are being sold at prices 25 per cent lower than the landed cost of American-made springs. The quality of these European springs is reported to be quite satisfactory.

Brake lining is imported from Germany on a very limited scale, although the prices quoted are almost 50 per cent below those offered for the American product. Bolts and nuts are imported on a considerable scale from Germany, but the varieties and sizes of bolts and nuts used on American cars make it necessary for the local importers to turn to American manufacturers for their requirements. The local agents of German manufacturers of asbestos products have attempted to introduce a clutch facing which, in spite of its much lower price, has not been favorably received, and the American brands sold still retain practical control of the market. Upholstery

material is in general imported from Germany because the difference in price as compared with similar American products is very considerable. Such accessories as seat and tire covers, radiator hoods, etc., are as a rule made locally from imported material.

Tire pumps and bulb horns are imported from Germany and France. One type of horn having a harsh, jarring note is unsalable in Greece because its use within the city of Athens is prohibited by police regulations. The majority of the vehicles operating in and around the city of Athens are equipped with plain bulb horns imported from Germany. The demand for hand jacks is not large, and the few that are being sold are imported from Germany. Electric-light bulbs are also supplied by Germany, Austria, and the Netherlands, although some are imported from the United States in spite of much higher prices. It may be said that in general German manufacturers are concentrating on replacement parts for two popular low-priced American cars, and as time goes on they are supplying an increasingly larger variety of parts for these cars.

There are no strictly commission agents in Athens handling automotive parts and accessories. All the Athens firms engaged in the trade import for their own account, although some of these firms may also accept orders for direct shipment to third parties either in Athens or in the provinces. In view of the great number of automotive manufacturers doing business in this country and the small size of the market, it is believed that the best method of merchandising is that based on the principle of exclusive distribution with territorial rights.

Owing to the geographic formation of the country, it is recommended that the entire territory of Greece be split up into two sectors—namely, one with Saloniki as a center to cover Macedonia and Thrace, and the other with Athens as a center to take care of continental Greece, Peloponnesus, and the islands. Distribution in these two sections should preferably be made through independent distributors, rather than through manufacturers' agents, of whom, as stated above, there are none that are really reliable as sales representatives.

The usual terms of sale offered by American manufacturers to local importers are sight draft and 60 to 90 days' credit on acceptance attached to shipping documents. European manufacturers are offering 90 to 150 days' credit against acceptance.

There are no special automotive magazines published in Athens. There is one weekly newspaper called the "Motorists Union," which is the official organ of the Federation of Automotive Associations of Greece, but this is little used for advertising. Most of the advertising of automotive products is done through the daily press and by means of hand bills, roadside signs, billboards, etc.

#### GARAGE AND SERVICE-STATION EQUIPMENT

It is only recently that garage and service-station equipment has been imported into Athens on a noticeable scale. There are about 15 garages in Athens and Piræus which are large enough for the installation of modern garage equipment. Several of these have already installed spraying equipment and air compressors for tire inflating, car washing, and high-pressure lubrication.



At the present time the only items for which there is a demand are air compressors, spraying equipment, grease guns, and car washers. However, as the use of such equipment is for the present confined to the cities of Athens and Piræus, the demand is bound to be restricted. There is no requirement for gas and oil dispensing pumps, as these are installed in garages by the three large petroleum companies doing business in Greece.

The machinery and equipment used in service stations is, as a rule, very old. There are only one or two service stations owned by automobile dealers which have some modern equipment, but scarcity of good, expert mechanics makes the efficient use of this equipment difficult.

Garage equipment and service-station equipment is distributed in Greece through the regular automotive accessories and parts importers.

#### NORTHERN GREEK PROVINCES

The following section of this report is devoted to a study of the market in Macedonia and western Thrace, otherwise known as the northern Greek Provinces, which area is primarily agricultural.

The geographic position of Saloniki and its growth in recent years makes it a highly strategic point for distribution in northern Greece. As a rule, importers and dealers in Saloniki are loath to work through firms located in Athens. Instead, they prefer to deal either direct with manufacturers or through manufacturers' agents established in Saloniki. American manufacturers and exporters should avoid placing the territory of Macedonia and Thrace under the jurisdiction of one agent residing in Athens or Piræus, except in case the agent or distributor for southern Greece maintains a branch office in Saloniki.

The general business depression affecting Athens and the southern Greek Provinces is much more accentuated in Macedonia and western Thrace. This is primarily due to the unsatisfactory condition of the Greek farmers in the northern Provinces, especially in the tobacco-growing districts, and also to the unfavorable weather conditions which persisted throughout the latter part of 1930 and the first part of 1931. Conditions in the automobile trade have been extremely adverse. New-car sales during 1930 were about 50 per cent smaller than in 1929, and further reductions are indicated in 1931. Stocks of used cars in the hands of automobile dealers are heavy, and repossessions for nonpayment are becoming very frequent.

Registrations of motor vehicles do not exceed 2,500 units. Approximately 95 per cent of all the automobiles operating in Macedonia and Thrace are of American origin.

#### REPLACEMENT PARTS AND ACCESSORIES

Conditions in the parts and accessories market are far from satisfactory. A general complaint among dealers is that owing to the keen competition the margins of profit have become so narrow that they can hardly realize any money on their investment. It is generally claimed that accessories and parts are sold on a 10 to 15 per cent margin of profit, which is barely sufficient to cover overhead and operating expenses.

Owing to the unfavorable road conditions in Macedonia and Thrace, all the replacement parts that are subject to wear and tear are in very active demand. The demand is particularly strong for axles; gears; pinions; plain, ball, and roller bearings; bushings; pistons and piston rings; springs; brake lining; spark plugs; valves; and electric parts. In the accessories line, batteries are important. About 1,000 batteries are sold every year in the territory of Macedonia and Thrace, of which 85 per cent are American. Most of the other lines coming under accessories are considered as items of luxury and do not enjoy an active demand.

European competition is becoming increasingly keen in the parts and accessories trade in Saloniki. This is due to the lower prices of European manufacturers and to their liberal credit terms. Although it would be difficult to determine in exact terms the extent of European participation in the parts and accessories trade, the consensus among the principal dealers in Saloniki appears to be that at least 20 per cent of the total requirements of the market is supplied by continental manufacturers.

The principal items now imported from Europe are ball bearings, on a large scale from France and Germany at prices 25 to 50 per cent lower than those quoted by American manufacturers. Swedish ball bearings are also used very extensively, although they are higher in price. Roller bearings are still imported from the United States. Springs are imported from Germany and France and are sold at prices 10 to 25 per cent lower than those of American origin. Springs are also made locally from leaf steel imported from Germany at a much lower cost. Brake lining from Germany sells at prices from 25 to 35 per cent lower but can not compete with American brake lining on a quality basis. Bolts and nuts are imported on a large scale from Germany at very low prices on account of lower cost of steel and low cost of production. Bulb horns, tire pumps, jacks, and tools are all imported almost exclusively from Germany and France on account of their low prices. Practically all tools come from Germany. Nonskid chains are purchased from Austria and Germany. Electric-light bulbs are imported from Germany, Austria, and the Netherlands. Terms granted by European manufacturers to the large importers in Saloniki are 90 to 180 days sight draft.

It is impossible to draw a clear line of demarcation between replacement parts and accessory importers in Saloniki. The general automotive supply importers and dealers are also stocking certain fast-selling items of replacement parts for various popular makes of low-priced cars and trucks, such as bushings, bearings, brake lining, fan belts, pistons, valves, gears, pinions, shafts, etc. Of course, the bulk of the replacement-parts business goes to the automobile dealers, who carry a more or less complete stock of parts for the particular make of car and/or truck which they represent, but the general parts and accessories importers also enjoy a good share of the business, especially in the provinces.

What gives the accessory importers a tremendous advantage over the automobile dealers in the sale of parts is their ability to offer to the trade the so-called "nongenuine" parts from American and European sources at prices considerably lower than those quoted by

the automobile dealers, who, in most cases, obtain their requirements through the car or truck manufacturers whom they represent and as a rule pay much higher prices for their "genuine" parts. In a territory like Macedonia and Thrace which is preeminently a price market, this factor has contributed more than anything else to the introduction of cheap European parts for American cars and trucks.

Parts and accessories are distributed in Macedonia and Thrace through manufacturers' agents working on a purely commission basis and through exclusive distributors importing wholesale for their own account direct from manufacturers and selling both wholesale and retail. There is a general feeling of prejudice among the larger importers against manufacturers' agents, mainly because some of these indent agents have been accused of unethical business practices or have resorted to selling policies which proved very embarrassing to the large wholesale importers.

Thus, one or two manufacturers' agents in Saloniki representing American companies, in addition to obtaining orders from wholesale accessory importers and automobile dealers for direct shipment to them, import the same products for their own account in order to supply the small retailers out of a ready stock. Very often the prices quoted to the retail trade by these agents include only the latter's commission, thus making it impossible for the larger wholesale dealers to sell these same retailers at a profit. In other cases, the sales agents canvass the retail trade and obtain small orders from each retail dealer, which they transmit to their principals for shipment under one bill of lading.

Both of these sales policies are not considered sound because they interfere very seriously with the business of the larger importers, who invest considerable money with a desire to maintain a complete assortment of parts and expect to sell the retail outlets throughout the whole territory in addition to the retail business which they may be doing in Saloniki. For this reason, the leading accessory firms in Saloniki, whenever possible, require exclusive territorial rights before stocking a line. There would be no serious objection on the part of the accessory dealers and automobile distributors to foreign manufacturers using the services of sales representatives provided these representatives do not repeat for their own account orders placed by the wholesale importers for distribution to the retail trade at lower prices than the wholesaler can possibly quote.

It is therefore recommended that American manufacturers and exporters exercise great care in the appointment of sales representatives, in order not to antagonize the wholesale importers and lose their patronage. It is believed that an exclusive distribution arrangement with one of the larger accessory and parts importers in Saloniki is much more advisable than trying to reach all of the importers through a commission agent. The territory is really too small for more than one good firm to handle a certain brand, and by working through one importer in Athens, and another one in Saloniki, rather than through an indent agent, the average American parts manufacturer would undoubtedly obtain a much greater volume of business from Greece.

During the past few months there has been a movement on foot among the leading parts and accessory importers of Saloniki to form

some sort of close association to be served by a common purchasing department and governed by uniform sales policies and price lists. The basic purpose of this association would be to eliminate competition through price fixing and to increase profit margins, which at present are much too narrow to make the parts and accessory business a paying proposition. Although there has been considerable discussion of this proposed merger, no definite decision has as yet been made in the matter, and it is improbable that the scheme will finally materialize, because of the many conflicting interests involved.

There are no special automotive magazines or newspapers published in Saloniki. All advertising, therefore, is conducted either through the daily press or by means of billboards and road-side signs.

#### GARAGE AND SERVICE-STATION EQUIPMENT

The market for garage and service-station equipment in Saloniki at the present time is practically nil. There are only 4 service stations in the city of Saloniki—3 owned by automobile dealers and 1 for general use—which are equipped with only the absolutely essential repair tools and appliances. Good mechanics are hard to find; in fact, there are not more than four or five good repair men in Saloniki. In the whole city, with about 750 cars running, there is only one air compressor in use. An attempt to interest local importers in the introduction of modern garage appliances has met with no success.

The reasonable channel of distribution for garage equipment under existing conditions would be through one of the manufacturers' agents located in Saloniki, as none of the accessory and parts dealers would care to stock any garage equipment for his own account.

### HUNGARY

#### Demand for Garage and Service-Station Equipment Shows Promise—Parts and Accessory Business Very Low—European Competition Heavy in Garage Equipment

Assistant Trade Commissioner Walter M. Slavik, Budapest

Registration of motor vehicles as of January 1, 1931: 13,404 passenger cars, 679 busses, 5,250 trucks, and 11,031 motor cycles.

#### REPLACEMENT PARTS

The trade in replacement parts, which showed a substantial growth during 1926 and 1927, began to decline in the following year and continued this decrease throughout 1929 and 1930. At the present time the parts business is reported very poor. American participation has shown rapid growth—from 8 per cent to approximately 50 per cent in five years.

Replacement parts most in demand are ball and roller bearings, brake linings, spark plugs, pistons, piston pins, and piston rings, while a secondary demand is found in clutch facings, driving and timing chains, fan belts, springs, and gears. Germany and Sweden offer heavy competition in bearings, and Germany is the leading competitor for pistons. Local production on a small scale, with

products usually inferior in quality, is reported on bearings, bolts, brake linings, clutch facings, fan belts, spark plugs, springs, valves, body-upholstery material, rims, and rim parts, but with important production on springs and body-upholstery material. This local production is supported almost entirely by the fact that State, municipal, and other public enterprises must purchase domestic products.

Germany offers the strongest competition, accounting for from 20 to 30 per cent of the total trade in replacement parts. France is the next most important competitor, followed by Sweden and England. Local manufacturers are said to obtain about 2 per cent of the total trade.

Although in general American parts are higher priced than those of foreign or domestic make, the difference in terms seems to be the chief inducement for local dealers to negotiate with any European or local company. Both French and German factories are offering parts on consignment, which is usually a convincing argument in favor of establishing connections for the average dealer in this country. As a result foreign lines are continually being chosen at the expense of American makes.

Severe terms seem to be the only complaint against American companies, with dealers holding the universal conviction that American companies are unreasonably exacting in their terms, and they claim that such terms must either be liberalized or the market lost for such companies. Dealers and distributors of parts in Hungary receive terms ranging from 30, 60, to 90 days' sight from American concerns, 90 to 120 days' consignment from foreign firms, and 90 days' consignment from domestic companies.

Owing to the present uncertainty in business, easier terms, including consignment, are not recommended; the best method of increasing the American share of the parts trade appears to some observers of the market to be the adoption of a continental distribution center whereby parts can be delivered promptly.

Replacement parts are distributed almost entirely through special parts and accessory dealers. No distribution trend away from these dealers and toward either car dealers or garages is indicated; car dealers are already too overloaded with obligations to be considered as possible parts representatives, and garages lack the necessary capital to carry stocks.

Budapest, the capital, is the only distribution center for replacement parts in this country. Half of the automobiles are registered in the city proper, and railway facilities bring the farthest frontier within 4 hours of Budapest. The city's population, which is over 1,000,000, accounts for more than one-ninth of the country's total inhabitants and for far more than one-half of the country's potential purchasers.

The most effective method of advertising is that of special circularization. The dealer obtains the names and addresses of car owners and sends printed circulars to each, calling attention to his product and its price, and, in addition, he employs men to place circulars in every parked car. This method is most effective with retail business. For wholesale business, it is claimed that a good energetic traveling salesman far outweighs any other influence in persuading

a retail dealer to stock a certain line, particularly if he is backed by standard trade-paper advertising of the trade name or mark of the brand he desires to place.

### ACCESSORIES

The accessory trade is composed more or less of necessities and is estimated at about only one-fifth or one-sixth that of the parts business.

Accessories most in demand in Hungary are nonskid chains, radiator covers, horns, both bulb and electric, tire pumps, shock absorbers, speedometers, and wind-shield cleaners. Secondary demand is found in mechanical jacks, lights, tire gauges, and novelties. It may be noted here that most of the demand for headlights comes from Hungarian owners of American cars who consider the American lights insufficient for Hungarian country roads.

Strongest competition is encountered from France and Germany in bulb and electric horns, tire pumps, shock absorbers, speedometers, and wind-shield cleaners, with local competition for nonskid chains and radiator covers. Domestic producers also turn out license plates, luggage carriers, mirrors, tire pumps, taximeters, and seat covers.

An accessory not mentioned in the list given but very popular with Hungarian drivers is that of direction indicators; these are supplied chiefly by local factories and are operated by battery current. They wholesale for approximately \$4.20 per pair. Turn indicators are compulsory by law for closed cars in Hungary.

France is the leading country of origin in the Hungarian accessories trade and accounts for about 50 per cent of the sales; the United States is second, with about 25 per cent, and Germany is third, with about 20 per cent. English and local firms show the remainder.

Accessories are usually marketed through exclusive distributors which are customarily parts and accessory dealers with numerous agencies and traveling salesmen to cover the field. These exclusive distributors carry such stocks as their capital permits, and such stocks are constantly incomplete. As a whole, however, in spite of the small number of distributors, duplication of competitive lines is limited, and the market is adequately covered.

Except for the fact that consignment shipments are not known, the terms granted in the accessories trade are similar to those for replacement parts.

The chief reasons for the choice of foreign accessories as compared to those of American origin seem to be prices and terms, the former being lower and the latter much easier. Quickness of stock delivery also carries weight, as in parts, aside from the lower freight charges. In spite, however, of some claims by the trade that some European accessories, particularly the French, are superior to the American in finish, and that their more attractive appearance, combined with equal durability, makes the greater appeal to the Hungarian car owner, those American accessories which are known on the market are showing improved sale.

## GARAGE AND SERVICE-STATION EQUIPMENT

Until 1929 there was only one garage in the country which might be considered equipped for modern servicing. Within the past year, however, three or four garages have been added, all in the city of Budapest.

The equipment most needed includes auto lifts, brake-testing machines, oil-dispensing pumps, polishing machines, valve grinders, and wheel-alignment equipment. The articles most in demand seem to be auto lifts, battery chargers, cylinder-boring machines, garage tools, reamers, and welding outfits.

It is estimated that about 60 per cent of the servicing equipment is of American origin. German competition is placed at about 20 per cent and French at about 15 per cent, and the remainder miscellaneous and local. German and French manufacturers compete in practically all items of garage equipment made, with German competition strongest in air compressors, battery chargers, garage tools and paint-spraying equipment; the French influence is stronger in jacks, both hydraulic and mechanical, and welding outfits.

Local production is reported in battery chargers, garage tools, gasoline pumps, oil and grease guns, paint-spraying equipment, tire-repairing machines, welding outfits, and wrenches. So far as is known, no further domestic manufacture is contemplated in the near future, although the general policy of the Government is to encourage new industries for whose products there is a growing demand and to foster them by subsidy, etc.

Electric current is generally available to Hungarian garages, but the use of electricity combined with the cost of equipment is uneconomical in view of the amount of work available and the cheapness of manual labor. Hand tools by far predominate in tire changing. Most of the tire repairing is done in repair shops specializing in such work.

The garages usually have two or three mechanics who may be considered properly trained; as a general rule, however, the mechanics have learned their trade without competent supervision. The result is, in general, poor service, complaints on this score being almost universal among Hungarian car owners.

The use of mechanical equipment is restricted by the lack of capital on the part of garages and repair shops. Mechanical servicing equipment is relatively expensive in view of the cheap labor available, and shops work as much as possible with manual methods. The Government has always discouraged the use of machinery and labor-saving devices, taking the attitude that such machinery deprives the population of legitimate employment.

The best selling method for this market, it is believed, is through manufacturers' agents. Present distribution of inexpensive service equipment is satisfactory, but that of larger and more expensive machinery is not what it should be because the agent usually lacks the capital to keep such machines in stock and as a consequence must order from the home factory, with the result that such machinery is difficult to obtain on short notice.

Garages are customarily under independent ownership and operation in Hungary.

The best terms for selling servicing equipment is believed to be 90 days from delivery against bank guarantee. Manufacturers may expect to be requested for as much as a year's credit, however, by local garages.

There is undoubtedly a growing recognition in this territory for more modern and better service equipment which will eventually have its effect. Such recognition, however, is handicapped by lack of capital, the relatively small amount of work, and the cheapness of manual labor.

### ICELAND

#### **Excellent Demand for Repair Parts—Sales of Accessories Increasing—Market for Garage Equipment Limited by Indifference of Public Toward Proper Servicing Facilities**

Consul Edward M. Groth, Copenhagen, Denmark

Motor vehicle registrations as of January 1, 1931: 600 passenger cars, 50 busses, 900 trucks, and 100 motor cycles.

One of Iceland's greatest needs is transportation, but development in this line can not take place until there has been additional road construction. A rough mountainous country such as Iceland presents many problems to road builders, and until these are solved the rough roads which now predominate, together with the hard driving of many local chauffeurs, heighten the necessity for replacement parts, accessories, and garage and service-station equipment.

Many automotive dealers and distributors refuse to accept second-hand cars in part payment for new ones; in fact, several dealers in Reykjavik have an agreement among themselves to refuse used cars in exchange. This attitude naturally tends to improve the new car market more than it does to enhance the market for replacement parts and accessories. On the other hand, with a market as limited as that which Iceland presents, the sale of new cars can not continue in an increasing ratio for an indefinite period, and therefore sooner or later there is likely to be a greater demand for replacement parts and accessories.

### REPLACEMENT PARTS

The market for replacement parts is excellent; in fact, it is recognized by the trade that this will become increasingly important and may eventually be more remunerative than the new car market, which because of the limited population and its naturally limited purchasing power can not be expected to expand indefinitely.

Fender replacements are among the most important items at present. The sand, gravel, and sharp lava pebbles which are constantly being thrown against the fenders wear off the original paint, which results in rust action, a condition which is fairly rapid because of the humidity of the island climate of Iceland. Ball and roller bearings are much in demand as are bolts. The mountainous character of the country, coupled with the constant breaking, which is required as a result of fast and in many instances reckless driving, establishes an excellent brake-lining market. Spark plugs and starting and lighting generators are also in demand. German spark plugs prac-



tically dominate the market. There is some demand for pistons, but this is not very great. On the other hand, the sale of springs is excellent.

The demand for plain bearings, bushings, driving and timing chains, valves, radiator caps, piston rings, body hardware and upholstery, gears, pinions, drive shafts, rims, and steering wheels is light and of comparatively little importance.

It would appear that neither owners nor chauffeurs are particular about the appearance of their cars for it is nothing unusual to see cars with one, two, or three hub caps missing. There are also many cars without radiator caps, while broken door handles and badly bent bumpers and fenders are quite common.

Approximately 85 per cent of the parts business in Iceland is of American origin. American participation in this trade is likely to increase, as the percentage of American-made cars is growing each year. There is little competition from European manufacturers, and there is no domestic production whatsoever.

Reykjavik, the capital of Iceland, with some 28,000 inhabitants, is the leading distribution center. Other towns of importance are Akureyri and Siglufjordur, both famed for their herring fisheries, Hafnarfjordur, also an important fishing town, and Isafjordur. None of these towns is important as a distributing center for replacement parts, although some automotive agents in the capital have their subagents or representatives in the smaller towns.

Automotive agents and dealers in Reykjavik are the leading distribution channels, for there are practically no dealers specializing in replacement parts. Several concerns and individuals have attempted to act as distributors of and specialists in automotive accessories, but they have, in practically every instance, been forced to liquidate their business.

Sight drafts against documents are the terms usually offered to distributors and dealers of replacement parts. These terms apply equally to American and foreign products.

Advertising is important and can be most effectively accomplished through newspapers and periodicals of which there are quite a number in Iceland. Advertising is expensive, but as there is no illiteracy in Iceland, what advertising may be done will be effective wherever there is any real demand for the products advertised.

#### ACCESSORIES

The demand for automotive accessories is very good and is steadily increasing. This expansion will undoubtedly continue, not only because of the ever-growing number of automotive vehicles in operation, but also for reasons stated under the heading of replacement parts.

Items in most demand include hand jacks, tire pumps, shock absorbers, windshield cleaners, and a limited number of nonskid chains. There is little demand for such accessories as body hoists, bumpers, hood, radiator, and tire covers, radiator heat indicators, lamp lenses, license plates, lubricating systems, etc. When speedometers which come with the original equipment of cars are broken or damaged, most of them remain so, for car owners do not find them worth replacing.

Ninety-five per cent of the accessory trade is in the hands of American manufacturers. There is no domestic production and very little European competition. Accessories are marketed by local motor-car dealers who make direct purchases from American manufacturers. In turn, these dealers sell the accessories to their own distributors located in the smaller towns.

Stocks of the various accessories most in demand are carried by the dealers and their distributors. The same companies do not carry competitive lines.

As with replacement parts, the usual terms are sight draft against documents.

Accessories are not stocked by service stations or accessory dealers as such, but rather by the agents or agencies of automotive vehicle manufacturers. There are now practically no exclusive accessory dealers in the country.

#### GARAGE AND SERVICE-STATION EQUIPMENT

If the difficulties attending the establishment of automotive service facilities in a remote region are considered, the progress which has been made in Iceland to render such service may be said to be satisfactory and as adequate as possible to meet the present local demand.

The active demand centers chiefly on such products as battery chargers, garage tools, small oil and grease guns, portable drills, wrenches, reamers, and high-pressure chassis-lubricating and grease-dispensing systems. There is also some demand for air compressors, gasoline pumps, valve grinders, and welding outfits, but this demand is so small at present as to be almost negligible.

Practically all the garage and service-station equipment now in use is of American origin. Practically all the garages in Iceland are operated by the automobile dealers. Reykjavik is naturally the center of the garage trade and at the same time it is also the logical distribution center for all Iceland, but Akureyri on the north coast may be considered as a redistribution center.

Properly trained mechanics are generally found in the garages and service stations of Reykjavik, but the same conditions do not exist in some of the small remote towns of the country. Nevertheless, conditions are steadily improving, and it is expected that properly trained mechanics will soon be available in all parts of the country where garage and service-station facilities are available.

The principal factor restricting the use of mechanical equipment in Iceland is indifference on the part of car owners and their disinclination to spend money for such equipment. Electric current is generally available to garage and service stations, and in Reykjavik such current may be had at reasonable prices. In some of the smaller towns, electricity is more expensive.

Hand tools are used almost exclusively throughout Iceland for the changing of tires. Mechanical equipment for this purpose is practically unknown. Very little tire repairing is done, for by the time a tire requires repairs in Iceland, it is practically worthless and is generally thrown away. Whatever small patching and repair

work which may be necessary is generally done by the owner or the chauffeur.

It is thought that a manufacturer's agent would be the most satisfactory selling method for Iceland in the absence of a direct American traveling representative. The distribution methods now employed in Iceland are undoubtedly satisfactory and adequately meet current demands.

As stated above, there is a growing recognition in Iceland of the need for better and more modern service and garage equipment, but the average car owner is unwilling to pay the charges which are a part of such service, another reason to believe that Iceland will continue to be a good market for American replacement parts, accessories, and garage and service-station equipment, but the demand for all these articles must always be limited because of the population and size of the country.

### IRISH FREE STATE

**Demand for Replacement Parts and Servicing Appliances Increasing with Accessories Declining—American Participation Small, Except in Servicing Appliances—England Offers Chief Competition**

Vice Consul Edwin J. King, Dublin

Registration of motor vehicles as of January 1, 1931: 39,000 passenger cars, 800 busses, 8,600 trucks, 7,000 motor cycles.

The demand for accessories, replacement parts, and servicing equipment has progressed correspondingly with the increased number of motor vehicles in circulation. In considering the Irish Free State as a market for American-made parts, accessories, and servicing appliances it must be remembered that this is primarily an agricultural country with a population of less than 3,000,000, and proximity to Ireland gives English manufacturers a decided advantage in meeting competition in the Irish Free State. Furthermore, the Irish customs tariff places an ad valorem duty of 33½ per cent on accessories and component parts of motor cars other than tires imported into the Free State from countries other than those benefiting from the "Imperial preference" clause of the tariff. Goods of this kind manufactured in Great Britain or any dominion of the British Empire are subject to preferential rates, which amount to two-thirds of the full rate.

### REPLACEMENT PARTS

Replacement parts most in demand are ball bearings, brake rings, gears, pinions, and drive shafts. The greatest share of replacement parts are of British manufacture with American products accounting for about 15 to 20 per cent of the demand. There is no domestic output.

Formerly the parts business was largely carried on as a side line by automobile dealers, but now the parts sold in the Irish Free State are, for the most part, imported from foreign manufacturers by the leading wholesale accessory firms in Dublin, who, in turn, distribute to smaller accessory dealers and garages throughout the Free State.

Most of the automobile dealers handle two or more makes of motor cars, and, as a rule, the replacement parts stocked are selected with a view to their suitability for the cars handled. The accessory dealers, however, carry a much more comprehensive stock and endeavor to meet the requirements of any motorist.

Proximity to Ireland gives English manufacturers a decided advantage in meeting competition. Traveling representatives of British manufacturers periodically cover this market, thereby keeping in close touch with its requirements and all latest developments. Firms of long established connections buy on open account, paying monthly. Otherwise the credit expected in this line is 30 to 90 days with a discount for cash. Local importers are accustomed to generous credit terms from exporters in other countries, notably Great Britain, and American firms should be ready to compete in this respect.

The most effective advertising method is by means of local newspapers and trade journals, as well as in leading British trade journals circulated in the Irish Free State.

#### ACCESSORIES

The demand for automobile accessories on this market has continued to decline since the beginning of 1929. Dealers attribute this situation to the fact that during the past two years most automobiles have had accessories as part of standard equipment which they did not have prior to 1929.

Accessories most in demand are radiator heat indicators, bulb and electric horns, mechanical and hand jacks, luggage carriers, trunk racks, rear-view mirrors, tire pumps, tire gauges, and hand and electric windshield cleaners.

Although it is estimated that only between 5 and 10 per cent of the accessories sold on this market are of American manufacture, American accessories are well liked and are stocked by the leading dealers. While Free State accessory houses would prefer to import American accessories direct, they find it inadvisable to do so in many cases, owing to the fact that if they should sell out of one particular accessory, they have, in order to keep the freight charges down, either to wait until they can make up an order for a complete line of the accessories they are carrying or order that particular article in such a quantity that they would be overstocked; whereas, in buying from England, if they run out of a particular accessory, they can order in as small lots as they desire and receive the goods within a few days.

Automobile accessories are stocked by accessory dealers, tire agencies, garages, and service stations. Retail accessory dealers throughout the Free State purchase either from British manufacturers through their traveling representatives or from one of the wholesale accessory houses in Dublin. For sales methods and credit plans, the same explanation applies as under the heading of replacement parts.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There is a well-defined tendency toward the installation of modern mechanical appliances, and good progress in this direction has been made during the past two years, particularly in the larger centers of

the country. Garage operators, most of whom are automobile dealers, state that there is a shortage of skilled motor mechanics in the Free State. The lack of skilled labor and the high wages demanded have been big factors in increasing the popularity of power-driven equipment for garages and service stations.

The items of equipment most in demand at present are air compressors, car washers, cylinder-boring machines, jacks, portable drills, reamers, welding outfits, high-pressure chassis-lubricating systems and grease-dispensing systems, wrenches, and garage tools. Only the largest garages in the country are prepared to give service in battery charging.

Sales of air compressors have shown good increases during the past few years, but there is still a great need for them in the smaller city and rural garages. Only a few of the leading garages have begun to install brake-testing machines. Cranes have been installed only in the principal garages of Dublin and Cork and are rarely available in the smaller garages. Relatively few hydraulic jacks are in use, most of them being mechanical. Dealers state that the use of oil-dispensing pumps is slowly but steadily expanding. The use of paint-spraying equipment is only being developed and confined solely to the larger garages. The use of polishing machines so far is limited to larger garages. Sales of tire-repairing machines, tire changers, and vulcanizers are slow. Most repairing is done in repair shops with only minor repairs being done by garages. Sales of towing and salvaging equipment are slow and are limited principally to the automobile dealers operating garages. The use of wheel-alignment equipment is only beginning and is confined to the larger garages.

There is no garage equipment manufactured in the Irish Free State, and the United States, England, and Germany are the principal sources of supply. American tools and equipment are well known in Dublin and have made good headway in this field. It has been estimated that approximately 50 per cent of the garage equipment imported into the Free State is of American manufacture; 25 per cent English; 15 per cent German, and 10 per cent French.

It is believed that American trade in this field can best be expanded by the employment of an Irish agent, preferably in Dublin, who would carry a complete line of servicing equipment for distribution to the trade throughout the country.

## ITALY

### Tariff Barriers Practically Eliminate American Participation in Replacement Parts, Accessories, and Garage Equipment

Trade Commissioner L. H. Taylor, Milan

Motor-vehicle registrations as of January 1, 1931: 212,319 passenger cars, 10,275 busses, 68,993 trucks, 105,546 motor cycles.

From the standpoint of American trade possibilities a discussion of Italy is from necessity decidedly negative in its general character. American car trade was practically stopped overnight when the advanced duty schedule (which affected replacement parts and accessories as well) went into force in the latter part of June, 1930. Not

only did this tariff increase place a very definite limit on secondary imports induced in natural consequence of American motor-vehicle arrivals, but it also put such standard replacement parts and accessories as were adaptable to Italian cars well out of reach of the motoring public.

It is hoped that the opportunity for American parts and accessories to again occupy an important place in the Italian automotive trade flow will eventually be presented, but that such a change will come about in the near future is not generally expected. By this statement it is not meant that no business can be done, for so long as there are foreign cars fit for further use there will be a call for certain repair parts, but the importance of this volume will diminish rapidly from year to year. There will also be a maintained demand for low-priced accessories of a practical nature that can not be readily duplicated by local producers. There are bright spots to be found in the garage and service-station equipment situation, but even here it must be recognized that the outlook is not too encouraging.

#### REPLACEMENT PARTS

The demand for replacement parts for American cars and such parts from the United States as were suited for Italian cars moved up very rapidly, especially during the years 1927 to 1929, inclusive. This movement continued despite a heavy tariff handicap until July 1, 1930, when the tariff rate was advanced to almost prohibitive levels.

The further importation of American automobiles virtually ceased with the 1930 mid-year tariff change. There are not sufficient American cars of any one make in the market to afford the dealers sufficient return on the income from service work. With but few exceptions, American car dealers moved to liquidate their existing stocks of new and used cars; many have entirely abandoned the automobile business, and some still carry on with a few cars yet to dispose of while they concentrate their efforts on the merchandising of newly acquired radio lines or motor cycles (Italian). Still others are maintaining service stations in the low-rent parts of the principal cities. In terms of imported replacement parts business this all means that a most definite "hand to mouth" buying era has set in. Many inactive dealers are left with a dead stock of slow-moving parts, and none are inclined to invest very heavily in new stocks. The result is that when a car owner needs a part it is very likely that he may have to put up his own money, then wait indefinitely until the dealer from whom he bought the car can get the single part from the United States.

For the reasons stated, the American parts business is of little consequence. To a lesser extent local suppliers have also been affected, this, however, being due to the state of economic depression, further aggravated by substantial wage and salary cuts throughout the country, as automobile owners are, as a rule, only able to have the most necessary repair work done on their cars.

Practically all repair parts are in demand, due to the high speeds, collisions, and the small amount of attention given to the motors. Considering the relatively small number of cars in circulation, the

number of accidents involving motor vehicles is very high. Many cars, especially taxicabs, are handled by irresponsible drivers, and slow-moving bicycles and animal-drawn vehicles provide hazards. In consequence, the percentage of heavy repair jobs, including major body repairs, runs high.

American replacement parts are very favorably considered in Italy, their quality especially being appreciated. There is, however, a very general and growing agitation that home industry be patronized, adherence to this requiring no patriotic urge when the existing tariff level put the local products in a position of price advantage. Such little progress as European manufacturers are making in this market is due to the benefits derived from transportation costs, lower than apply to similar American shipments, to the fact that goods ordered arrive in a few days, and to the very lenient credit terms offered by some of the German houses.

There is still some business done in American-built bearings (although this is made difficult by a well-known Swedish make), brake lining (although a French brand is much more in demand), fan belts, and spark plugs.

For effective distribution it should suffice if a good distributor can be secured in Milan. All of Italy, including the North African colonies, can be very well served from this northern metropolis through two or three traveling men who could thoroughly canvass the trade. If a national distributor can not be secured, then small organizations should be sought in the cities of Milan, Turin, Rome, Genoa, Naples, and possibly also Bologna and Padova. Such little business as could be expected from Sicily would naturally be solicited by the man in Naples.

The practice in Italy is to effect broad distribution of replacement parts through local jobbers. About 70 per cent of the automobile dealers in Italy represent the Fiat car, and such parts as these dealers are permitted to purchase from outside sources could be picked up from the local general jobber. With few exceptions, garages are of the small variety not equipped to handle other than minor service jobs and certainly would never carry a stock of repair parts.

Local manufacturers usually supply their dealers on open accounts subject to monthly settlements. American terms vary according to the nature of the product, the quantity ordered, and the credit record of the purchaser, these terms ranging from cash with order to 120 days after arrival of goods. Generally speaking, the terms offered by American firms are inferior to those of the European. It is understood that a great deal of the material coming in from Germany is placed on consignment and that payment 120 days after arrival of goods is not unusual.

Some of the largest jobbers and manufacturers make extensive use of trade-paper advertising space. The wide dissemination of descriptive circulars and combination catalogues has also proved to be a successful method of advertising.

Although the volume of business may be relatively small, it is hoped that the car manufacturers who have placed any of their units in this market during the past few years will take such steps as are necessary to insure that the good will of their owners may be retained through their having access to stocks of at least the most

essential replacement parts. Where conditions have forced the former car distributor out of business, every effort should be made to secure a national distributor to take over the parts business.

### ACCESSORIES

The demand for accessories has moved down to a very low point. In the first place, all such items as are considered essential to the convenient and safe operation of the car are now being installed as original equipment. Under more favorable conditions an interesting demand would exist for luxury items in the accessory class, but during these times the average motorist, after paying the annual circulation tax, which would be considered extremely burdensome even in America, and paying for gasoline at the rate of 1.85 lire per liter (about 37 cents per United States gallon), lubricating oil at 9 lire per liter (about 45 cents per quart), has little left to invest in new equipment.

Just as in the case of replacement parts, the increased duties which went into effect the middle of 1930 curtailed American accessory imports and offered a decided stimulus to local manufacture. During the last six months of 1930 the trade in American automotive accessories, as well as those from other foreign sources, dwindled to a very low level.

The only accessory item that is really in demand at the present time is wind-shield wipers. The speedometer trade, as well as the demand for bumpers, tire covers, antiglare devices, bulb horns, and mirrors, is supplied by local producers. Cold-weather items, such as radiator-hood covers and heaters, are used only to a very small extent in the northern sections of the country, and a real market for such items does not exist. Skid chains have never made any headway in Italy. Mountain roads are closed in the winter, muddy roads are no longer a rural hazard, and such equipment is not used for city driving during rainy spells.

Under existing conditions it would appear impossible to successfully merchandise the important accessories except of a low-priced practical variety, which may be of an unusual nature and could not be readily duplicated locally. Such devices as those which would insure against the theft of gasoline and a cheap gage installed on the instrument board of private cars to show the number of kilometers covered for each liter of fuel consumed are indicative of the type of fixtures which should command interest here.

The most successful method of selling is through exclusive distributors, who, operating out of Milan, could cover all of Italy and the colonies, selling to all classes of retailers. Large distributors with sufficient capital are hard to find at the present time, and until the depression clears a commission agent well connected in the trade and carrying other noncompetitive lines would probably produce the best results. Limited stocks of a vast assortment of items are usually carried. Very often the distributors or commission agents acquire or seek to acquire products that are directly competitive. For this reason great care should be exercised in placing an account. Unless a manufacturer is in a position to send a factory representative, it would be well to use the facilities of the Department of Commerce offices in Italy that the proper type of sales outlet may be secured.



The present distribution organization for accessories is more than adequate. In fact there appears to be far too many in the small retailer group and the mortality rate is running very high. Commission agents should be warned to sell only to retailers who are in business to stay and who are in the habit of selling at prices that involve a fair margin of profit. No line of merchandise can maintain a secure position in the market if it is placed in the hands of weak merchants who disrupt the market by selling at close-out liquidation prices.

Local manufacturers usually make a practice of supplying their distributors on open account. European exporters to Italy are inclined to extend 60, 90, or 120 days' time to firms of good standing, frequently also indulging in consignment stock. American companies show a tendency to be more conservative, exacting more prompt payment. Caution is suggested in the extension of credit terms. Car agencies and garages very seldom show a stock of accessories. The more modern type of service station, of which there are very few in Italy, may stock sparingly.

In general, stocks are available only to a limited extent on the shelves of the retailers. The distributors, if the line is considered fast moving, and if they are amply provided with capital, carry sufficient stocks to meet the short-term demand.

The progress being made by domestic and European producers against American trade is due in the first instance to tariff protection and the ability to duplicate with low-quality items, and in the second instance there are the more attractive credit conditions, lower prices, and quicker delivery.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Despite the large number of motor vehicles registered in Italy it is surprising how little has been accomplished in the way of supplying adequate service facilities. There are only eight or nine large garages in the entire country; small neighborhood garages of 20 to 50 car capacity are numerous in the larger cities. Most of these do not attempt to handle anything but the lightest sort of service jobs. Even those that go in for heavy repairs are seldom equipped with proper hand tools. Automobile mechanics are not of a very high order.

The garage and shop equipment most needed and for which the present demand is running high includes air compressors, greasing outfits, and auto lifts. Almost every type of automotive service equipment in demand is now being manufactured in Italy. The greatest progress has been made in the production of hoists, air compressors, greasers, car washers, and tire inflators. An exceedingly small electric tire inflator of domestic make is much in evidence. It requires at least 20 minutes to take care of a single tire, and it is usual to make a charge for this service.

The trend toward local production is very definite, and additional manufacturers are constantly entering the field. The quality of these products is inferior to those of American origin, but the prices are much lower, fully 50 per cent on some items. More experience is needed by local producers before they can hope to eliminate foreign competition.

The volume of sales is not yet large enough to make it profitable for local concerns to bring out the variety of sizes that are offered by American firms. Hence, there is lacking that flexibility of equipment grouping which is one of the things that have contributed so much to the successful sale of the American apparatus. Local competition will undoubtedly increase, but the idea of modern service stations has taken root and in spite of local competition it is expected that the actual volume of American business will shortly increase.

American servicing equipment, considering the conditions under which it must be sold, is making splendid progress. The most modern garages are adding American devices. Selling is not easy in the face of low-priced, long-credit competition offered by Italian and other European houses, although the competition from other



Figure 14.—One of Italy's newest service stations, located in Milan and using American equipment

European sources is not of great consequence. Such as there is exists chiefly because of unusual credit accommodations.

Tires are generally changed through the use of hand irons or in some cases with the help of the smallest type of expanders. It is pointed out that about 90 per cent of the rims used in Italy are of the solid type, and in such cases rim-expanding equipment is of no value. The bulk of the tire-repair work is turned over to shops specializing in this line. To some extent Fiat dealers take care of their own tube and shoe vulcanizing. However, a number of the larger service stations which recently installed vulcanizing equipment have had to get rid of it because they found that there was not enough business to make it pay. There is a growing tendency to import many of the heavier pieces of service equipment, minus certain parts (i. e., cast-iron bases of tire inflators, steel runways of automobile lifts, etc.), as these parts can be easily duplicated in Italy at comparatively low costs. Considerable net savings thereby result through avoidance of ocean freight and customs duty.

The most logical method of distribution of American servicing equipment is through a well-financed firm in Milan, which has or will provide a technical staff. Failing to secure such representation in Milan, a similar type of organization should be sought in

Genoa or Turin. In any event, exclusive sales rights for all of Italy and the colonies should be vested in a single representative.

The success now being enjoyed by American products in this group can be attributed entirely to the sales methods being employed by two or three distributors. In selling this line it is necessary to do much pioneer work. First, the garage or service-station owner must be convinced that it will be profitable for him to modernize his place, the amount running sometimes into thousands of dollars. He must be sure that it will also pay him to install the highest-quality and highest-priced American machines. Finally, he must be made to realize the installation should be complete. To only partially convert his establishment by adding one or two items is shown to be an unwise move. After gaining the confidence of the prospect, the distributor studies the situation thoroughly and submits a layout plan with his quotations. It will be seen that this calls for the highest type of representation which must be equipped to render an engineering service.

The present method employed in the distribution of American service and garage equipment is judged to be thoroughly satisfactory only in one instance. Many accounts are in the hands of commission agents and small wholesalers who could never be expected to do the highly specialized merchandising job called for. Admitting that the situation is subject to much improvement, progress must be made slowly. It is to be assumed that as the market grows, and it inevitably will, though slowly, the quality of available representation will also improve.

Another important point is that little of this class of business can be done on a cash basis. Banks are reluctant to accept any great amount of such "conditional sales" paper, and when they do so accommodate good clients, the service charge is heavy. To carry the paper itself for one or two years (which is not at all uncommon) the selling organization must have such financial resources as are rare in Italian automotive-trade circles these days. In view of the financial burden that the distributor must inevitably be prepared to assume if he hopes to do a large volume of business, he requires as much time as possible to pay his supplier. The American exporter should exhaustively investigate before extending protracted terms, but as his Italian distributor can qualify, he should be granted the limit of accommodations. This will not only permit of more effective coping with local and other European competition, but will also enable the well-founded representative to further his pioneering program.

There is an undeniable appreciation in some quarters that a great need exists for the best and most advanced types of automotive service equipment procurable. The movement is started, but a great deal of educational work is necessary. Low-quality devices will be bought because of their prices; some garage or service-station owners will be oversold and put in too much equipment or apparatus too large or too small to best suit their needs. At this stage, however, education of the seller is more important than enthusing of the prospective buyer.

## LATVIA

**Replacement Parts Market Fair, with Small Demand for Accessories and Service Appliances—European Competition Heavy in Accessories and Garage Equipment**

Commercial Attaché Lee C. Morse, Riga

Motor-vehicle registration as of January 1, 1931: 2,126 passenger cars, 340 busses, 1,469 trucks.

Owing to the customary overloading of trucks and busses and the unfavorable condition of certain sections of road, Latvia presents a fairly good market for replacement parts, considering the limited number of automotive vehicles in operation. On the other hand, the demand for accessories and service-station equipment is very small and confined to the most indispensable items. A more extensive sale is prevented by low purchasing capacity and cheap labor. Imports of replacement parts and accessories were on the increase until 1930. Dealers state that purchases in 1929 exceeded the requirements, and the large stocks of goods which were carried over to the following year caused purchases to be smaller than expected.

## REPLACEMENT PARTS

Items having a good demand include ball and roller bearings, brake lining, clutch facings, and spark plugs, while a fair demand is occasioned by plain bearings, bushings, driving and timing chains, fan belts, valves, pistons, piston rings, body hardware, gears, pinions, rims, and rim parts. European competition supplies 75 per cent of the ball and roller bearings, 50 per cent of the spark plugs, 60 per cent of the body-upholstery material, and also competes with brake lining, bushings, fan belts, piston rings, and body hardware. The domestic industry supplies springs, bushings, bolts and castings, forgings and stampings, as well as some fan belts.

It is well to keep in mind that 85 per cent of all the cars in operation in Latvia are of American origin and that 90 per cent of these cars are supplied with genuine American-made replacement parts.

There are no large wholesale importers in this line. A few of the larger dealers, however, sell certain items through some of the smaller dealers. In addition to the firms specializing exclusively in the sale of replacement parts and accessories all automobile dealers keep stocks of parts for the cars they handle. European manufacturers send traveling representatives to cover the territory. Dealers in parts and accessories receive, as a rule, from three to six months' credit from the manufacturer with or without 25 per cent cash in advance, depending on the case. European manufacturers grant more liberal credit and payment terms than American firms. Any increased European business will largely be accounted for by the fact that they can make quicker deliveries, will fill smaller orders, and offer better credit facilities, and in many cases they can quote lower prices than Americans, especially in the accessory line.

The main distributing center for the whole of Latvia is the city of Riga, where all the larger distributors of replacement parts and accessories are located. Some of these distributors have their agents

in other cities, such as Liepaja, Jelgava, Daugavpils, Ventspils, Cesis, and Valmiera.

To advertise their products local dealers use newspaper space exclusively, the cost of which is borne by the dealers.

#### ACCESSORIES

Due to the low purchasing capacity of the population, Latvia presents a limited market for automotive accessories, since only the most indispensable items are used by the average car owner.

Items for which there is a fair demand include nonskid chains, electric horns, hand jacks, lamp lenses, and suction windshield cleaners.

Most of the accessories in this territory are of German make, which accounts for about 65 per cent of the demand, while the American share is estimated at about 25 per cent, the balance being supplied by French, English, and other European manufacturers, with the exception of bumpers, nonskid chains, radiators, tire and seat covers, license plates, windshield glass and mirrors, which are produced locally.

Distribution of accessories and credit terms are similar to those treated under the head of replacement parts. Stocks carried by dealers are usually small. Some of the wholesale dealers have found it profitable to sell minor accessories also through the gasoline service stations operated by oil companies, and this business is mostly done on a commission basis. A good share of the accessory business is taken care of by the car dealers.

#### GARAGE AND SERVICE-STATION EQUIPMENT

With the exception of three small but fairly up-to-date garages operated by car dealers, and a small number of garages and workshops accommodating from 10 to 20 cars each and maintained by private individuals, there are no establishments in Latvia similar to the regular service stations of the American type, and there is no expectation of any noticeable progress in the near future. The equipment of the Latvia garages consists mainly of tools, and the work is done largely by manual labor. There is an adequate supply of skilled mechanics and workmen available who can do the work satisfactorily.

The only items for which there is a fair demand include gasoline pumps, which are installed and operated exclusively by oil companies; garage tools, 70 per cent of which are furnished by Germany; and wrenches. There is an extremely limited demand for cylinder-boring machines, oil and grease guns, oil-dispensing pumps, paint-spraying equipment, portable drills, reamers, valve grinders, welding outfits, and vulcanizing equipment. Tires are changed by hand.

Only a small variety of the most indispensable garage equipment is purchased by the Latvian garage owners, owing primarily to a cheap supply of manual labor, which eliminates the demand for labor-saving machines and devices. The small number of automobiles in circulation and the limited capital in the hands of garage owners strengthen the position of manual labor. As to electric

current, a special rate is available to the garages. As previously mentioned, tires are changed here by hand tools, and the necessary tire repairs are effected by the individual chauffeurs with the aid of vulcanizing kits, while bigger jobs are done by vulcanizing work shops, of which there are a few in the city of Riga. The share of American manufacturers in the supply of tools to Latvian garages is estimated at 20 per cent, the market being controlled chiefly by Germany. English and Swedish tools are also well known.

From numerous interviews it is indicated that sales of replacement parts and accessories in Latvia during the present year (1931) will be considerably smaller than in any of the past few years. Depressed conditions in almost all lines of industry and trade will certainly adversely affect automotive transportation. A large number of trucks formerly employed in the lumbering activities throughout Latvia are now standing idle. The curtailment of the budget for the road-building program of the State will add to the number of idle trucks. The demand for replacements on the part of taxicabs is likewise expected to decrease. Replacements for private cars may reach 1930 figures. On the other hand, it is anticipated that good sales of replacements will be made to bus operators because of continued expansion and the addition of new lines.

## LITHUANIA

**American Parts Supply 75 Per Cent of the Demand—Accessory Trade Small—Need for More Modern Garage Equipment Recognized, but Trade Limited by Small Purchasing Power—European Competition Increasing**

*Rudolph W. Hefti, of the American Consulate, Kovno*

Motor-vehicle registration as of January 1, 1931: 1,444 passenger cars, 381 busses, 519 trucks, 735 motor cycles.

Registrations of motor vehicles in Lithuania have increased by more than 500 per cent since 1925. This is the result of an aggressive sales effort coupled with a moderately improved standard of living.

### REPLACEMENT PARTS

During the postwar period American automobile manufacturers, through aggressive sales policies, practically gained a monopoly in the Lithuanian market. At the present time close to 90 per cent of the motor vehicles in this country are of American manufacture.

Replacement parts most in demand are plain, ball, or roller bearings, brake linings, fan belts, spark plugs, and springs. American participation amounts to about 75 per cent of the market demands, with Germany supplying the remainder. There is no domestic production except a very small amount of forgings.

Distribution of replacement parts is effected exclusively by automobile dealers. There are no special parts and accessory dealers and modern garages exist only in conjunction with automobile dealers. It does not seem likely that there will be any change in the present method of distribution for some time to come, since the Lithuanian market is incapable of supporting a large number of small replacement agencies independent of the automobile distributors.

Discounts of about 25 per cent are offered to local distributors by both the European and American manufacturers on larger products, and on small articles anywhere up to 85 per cent, with the average approximately 50 per cent. Credit of 30 to 90 days is customarily extended on small orders and as much as 18 months to 2 years on large consignments.

At the present time the sales situation is not altogether satisfactory in the American automotive trade. Because of the low purchasing power which yet prevails, it is almost impossible to do business on a cash basis. Local merchants are accustomed to receiving liberal credit allowances, and when such easy terms are not forthcoming from American firms they naturally turn to German companies which are always ready to extend credit.

In theory, American firms will grant credit to Lithuanian dealers, but in practice this is often impossible. It usually requires many months to consummate credit negotiations between an American manufacturer and a Lithuanian merchant; whereas, in the case of German companies, it is only a matter of days before a satisfactory agreement can be reached. This is a very important item, probably the most serious obstacle to the broadening of the American market in Lithuania. Because of limited capital, Lithuanian dealers are unable to carry large stocks on hand, and, consequently, they must depend on prompt negotiations and rapid shipments. Goods are customarily received by parcel post from German firms within a week from the time the order is placed. Another deterring factor to American sales in the local market is the comparatively high price of American products, which is partly due to their superior quality. However, the average Lithuanian's primary interest is price.

The only distribution centers of commercial significance in Lithuania are Kovno and Memel, and whatever purchases are necessary are made from dealers in these two cities. The use of advertising in Lithuania is limited by the great amount of illiteracy and the small number of current publications. German magazines are the only ones of commercial significance which circulate in this country. Although the total of advertising is relatively small, it is worthy of note that the automotive trade leads in the allotted space purchased (principally in the few daily newspapers), and it is said that this advertising has proved reasonably successful. Window displays are, generally speaking, the most efficacious medium of advertising, and recently there has been a noticeable use of placards and posters. All advertising must be conducted in the Russian, German, or Lithuanian languages.

#### ACCESSORIES

The existing demand for automobile accessories is not great. Up to the present time the average Lithuanian automobile owner has been uninterested and often financially unable to purchase equipment additional to that supplied with the car. In recent years, however, due to an improving standard of living, the demand for accessories is showing a moderate increase.

The following items are most in demand: Bulb and electric horns, nonskid chains, direction indicators, lamp lenses, covers for hoods, radiators, and tires.

Germany, Sweden, Denmark, and France are showing strong competition to American goods, and the percentage of the latter is not over one-quarter of the supply.

The foreign accessories, which are at the present time most firmly established, are bulb and electric horns and lamp lenses and lights. It is of interest to mention that electrically operated signal-arm lights manufactured by German firms are very popular, the lights being attached to each wind-shield support.

Domestic production of accessories is confined to nonskid chains, and a small amount of covers for radiators, hoods, and tires. The latter are manufactured from materials purchased abroad.

Accessories are marketed by selling direct to the dealers. It should be emphasized that the Lithuanian market in automotive products is too small to justify specialization in distribution. Retailers are wholesalers, garage owners are automobile dealers, automobile dealers are distributors of accessories. It appears that there will be no change in the method of marketing accessories in the near future, since the present manner of distribution is adequate for present needs. Local dealers are financially unable to carry large stocks, and consequently they make frequent purchases from sources near at hand. Competitive lines are carried in all products except tires, which are sold by exclusive agencies.

Accessories are stocked by car agencies in conjunction with garages. As was previously mentioned, there are no specialized service stations or accessories dealers. Stocks are necessarily small because of limited capital, and consequently sales are often restricted. It is suggested by local merchants that stocks be maintained by American manufacturers at Lithuanian customs, as is now practiced by several American rubber companies.

The same selling terms apply to accessories as to replacement parts; that is, discounts of about 25 per cent on larger products, and as high as 85 per cent on small articles with an average of 50 per cent. Credit of 30 to 60 days is extended on small orders, and 18 months to 2 years on large orders.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are only 4 modern garages in Lithuania, 3 being located in Kovno and 1 in Memel. The remainder of the garages are crude work shops with little, if any, modern equipment. It is therefore apparent that the market for garage equipment is very limited at the present time. Although the number of motor vehicles in operation is small, it is admitted that the existing service facilities are not adequate, but at present local dealers can not afford to invest heavily in additional equipment.

Mechanics are satisfactory in the few modern garages, but they are far from being on a par with American workmen. This situation is only a natural one, since whatever training has been received has been accomplished in the last 10 or even 5 years.

Practically speaking, there is no demand for garage equipment in Lithuania at the present time, since the funds at the disposal of the garage owners are very limited. However, there is a slight need for air compressors, battery chargers, brake-testing machines,



hydraulic and mechanical jacks, high-pressure chassis-lubricating and greasing systems, portable drills, and tire-repairing machines.

Foreign competition is not severe. German and Danish equipment have been unable to meet the American products in the local market. Only in smaller tools, drills, and wrenches has Germany effected notable sales in Lithuania. What garage equipment is in use is largely of American manufacture. There are no domestic producers of garage equipment, and it does not seem that there will be any activity in this line in the near future.

Insufficient purchasing power as well as the belief that there is no need for labor-saving machinery in view of the cheapness of labor restricts the adoption of mechanical equipment. There are still many country districts where electricity is yet unknown; generally speaking, however, economical electric current is available wherever garages are established. Modern tire-changing equipment is at present not employed. All tire changing and repairing is done by hand with the simplest tools. Most repair work is performed in the larger garages, although work of a minor nature is done in small repair shops. No large tire-repair service station is in operation, although an important American rubber company is making preparations for the establishment of such a station with modern equipment and American-trained workmen.

The best selling method in the local market is through wholesalers, although replacements are usually distributed by automobile dealers. All garages except the small repair shops are operated by automobile dealers.

Liberal credit terms are the rule to successful selling in this market. American manufacturers should endeavor to make closer contacts with the Lithuanian automotive trade to facilitate the extension of sound credit to reputable local dealers, since it is difficult to make satisfactory credit negotiations by means of transatlantic correspondence. Credit up to 24 months is often granted on the sale of garage equipment; since there is practically no demand for garage equipment at the present time wholesalers ask 25 to 50 per cent discounts.

There is a growing recognition of the need for better and more modern garage and service equipment, but at the present time the purchasing power is lacking. It seems probable that it will be some years before this country will be in a position to offer modern and widespread garage service. As was previously mentioned, the United States is predominant in the sale of automobiles in Lithuania, but in respect to replacements, accessories, and garage equipment, American manufacturers are slowly losing ground, chiefly to Germany. American automotive products enjoy unquestioned popularity, but this popularity in itself is insufficient to offset the unfavorable sales conditions which prevail at the present time. If American manufacturers desire to maintain their dominant position in the Lithuanian market, they must arrange to make their goods more accessible to local dealers than is possible under the existing distribution system.

### MALTESE ISLANDS

#### Replacement Parts Demand Fair, Considering Size of the Market, Accessories Declining, Use of Mechanical Equipment Limited by Lack of Purchasing Power—American Products Predominant

Consul Hugh S. Miller, Valletta, Malta

Motor-vehicle registrations as of January 1, 1931: 1,502 passenger cars, 557 busses, 254 trucks, 332 motor cycles.

The principal island of this group is Malta, on which the capital, Valletta, is situated. Nearly all of the motor vehicles in the islands are on Malta.

The increase in registrations has been small but steady during the last three years. The principal competitor for American passenger cars is the Italian Fiat. At the present time nearly 50 per cent of the passenger cars and trucks and about 88 per cent of the busses in operation in the island are of American origin. The most important feature of the local trade during the last few years has been the rapid increase in the sale of American bus chassis of low-priced popular makes. These have been equipped with locally built bodies.

It is estimated that approximately 70 per cent of the spare parts, accessories, and garage equipment in Malta are of American manufacture.

#### REPLACEMENT PARTS

Owing to the unimproved condition of the roads in Malta, springs and gears are among the replacement parts that are most in demand. Other parts sold are brake linings, spark plugs, valves, piston rings, upholstery material, pinions, drive shafts, generators, rims, and rim parts.

Garages and dealers other than the exclusive representatives of American cars carry spare parts for some of the American cars that are locally popular. Since the American manufacturers have their exclusive agents in Malta, the other dealers are not in a position to order the parts direct from the United States. Accordingly they buy them in England, through their own connections from the London distributors.

Advertising in Malta is chiefly through the daily newspapers, in English, Italian, and Maltese, and by descriptive posters. The latter are for the many Maltese, especially in the villages, who can not read. A good many of the bus owners are in this class.

#### ACCESSORIES

Conditions in the accessory trade are the same as in the trade in spare parts, though local dealers indicate that the demand for accessories is declining, due to the complete equipment on all standard passenger cars now produced. Furthermore, because of the poor condition of the roads there is little opportunity or occasion for pleasure driving, and many car owners coming to the island from England are satisfied to leave their cars at home and purchase second-hand cars for use while here. As a rule they are not inclined to purchase any items that are not absolutely needed.

Accessories most in demand are bumpers, tire covers, heat indicators, bulb horns, electric horns, hand and mechanical jacks, rear-view mirrors, tire pumps, shock absorbers, speedometers, tire gauges, and seat covers. Luggage carriers and trunk racks are sometimes used for picnic equipment. Nonskid chains and theft-proof locks are not used. Small articles are frequently stolen from cars left standing in the streets, but the cars themselves are seldom if ever stolen, as there is no opportunity for disposal.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Each of the 5 principal automobile dealers operates a garage, only 2 or 3 of which can be said to be well equipped. The remaining garages on the island can be trusted only with small repairs. Locally trained mechanics are not satisfactory. The largest establishment has brought in a number of German mechanics while the agent for the Fiat car each year sends three or four mechanics to Italy for training in the company's plant; on their return these mechanics are employed in the Fiat garage.

The items of equipment that are said to be in most demand are auto lifts, battery chargers, cranes, garage tools, tire-repairing machines including changers and vulcanizers, and towing and salvaging equipment.

Most of the equipment in the local garages appears to be of American production, though some of it is extremely limited in quantity. No garage equipment is made in Malta, and none is likely to be produced in the future. Practically all the equipment in the garage owned by the Fiat agency was installed by the parent company in Italy, while the rest of the equipment used by this concern is chiefly American.

Gasoline pumps are not used, as the local government allows only 60 gallons of gasoline to be kept stored in a single garage.

There is no obstacle to the use of mechanical equipment in this district except the general lack of funds by garage owners.

Electric current is available in differing voltages and frequencies. On the Island of Malta the system is single-phase, alternating; in Valletta and Floriana the voltage is 100-105, and elsewhere 200-210. The frequency is 100 cycles per second, which is exceedingly rare and requires many kinds of electrical equipment to be specially made for Malta. On the island of Gozo, which is unimportant from the point of view of the motor trade, the system is 3-phase alternating, 200-210 volts, and a frequency of 50 cycles.

The present method of changing tires is by hand tools. Most tire-repairing is done in repair shops.

There is growing recognition in Malta of the need for better and more modern service and garage equipment, and plans are now being made for local firms to construct garages and service stations that in size and equipment will be up to modern standards. Ground for one of the new establishments has already been broken and work is now in progress.

It is believed that the present system of distribution, considering the small extent of the market is satisfactory. The agents of the various cars that enjoy the largest sales carry fair to complete stocks of spare parts; the representatives of the cars that have only a

limited sale are likely to have to order replacement parts as needed. The principal dealers also carry accessories and the items of garage equipment that are most in demand. The more important items of garage equipment are imported as required. The demand for the latter is too small to justify a firm carrying them in stock.

## MONACO

Consul Robertson Honey, Nice

Motor-vehicle registrations as of January 1, 1931: 1,490 passenger cars, 50 buses, 150 trucks, and 250 motor cycles.

In considering sales prospects and extension of trade possibilities for the independent Principality of Monaco it is essential to bear in mind that the total area under review is extremely limited, and the population, about 25,000, contains a large majority of persons who are not able to own automobiles. As a direct importing unit the Principality is a negligible factor, supplies being drawn from Paris or other large cities in France. From a commercial point of view, Monaco may be considered a part of France, although it is a political entity and is independent in every sense of the word. However, French manufactures are given preference, all things being equal, and it requires some special attraction in either price or mechanical superiority before foreign manufactures are considered. There is no real market in Monaco and little prospect of any material expansion in demand.

### REPLACEMENT PARTS

With approximately 2,000 automobile vehicles locally registered, of which about 95 per cent are of French or Italian manufacture, there is naturally a very limited demand for American goods. There is no local production of replacement parts.

If a sales campaign is to be inaugurated for the whole of France, then any benefit which may accrue from it would be reflected in Monaco, as supplies are drawn from Paris or other distributing centers of France. There is no customs barrier between France and Monaco.

A stronger demand for French and in some measure for Italian products is due chiefly to the desire to buy in the cheapest market consistent with quality, with a natural leaning toward French products, all things being equal.

### ACCESSORIES

American-made accessories are not in a position to compete on a price basis with French and Italian products owing to import duties. It does not appear that there is much field for expansion until the matter of price can be adjusted, and even then the demand would be limited.

There are only three firms of any importance to deal in accessories, one of which is a branch of a firm located in Nice. Garage proprietors also stock accessories, but there is no marked tendency to replace the dealer as the latter generally sells cheaper. Limited stocks are held.

**GARAGE AND SERVICE-STATION EQUIPMENT**

Prospects for American business in this line are unfavorable since most of the equipment has been of French manufacture, high duties again handicapping American products. Gasoline pumps are supplied free to the distributor by the French company whose gasoline is on sale. Air pumps are supplied in the same manner, the French company placing the pump with their representative free-of-charge and replacing it when it is worn out.

Electric current is available for the operation of service equipment at a reasonable rate. For industrial use it is supplied in the form of direct current at 500 volts and at a charge of 0.05 franc (\$0.002) per hectowatt-hour. Lighting current supplied is alternating current at 110 volts, 42 cycles at 0.15 franc (\$0.006) per hectowatt-hour. The majority of the garages, however, are too small and have insufficient funds to acquire up-to-date and comparatively expensive appliances. In some cases properly trained mechanics are employed, but this is not general.

**NETHERLANDS**

**Steady Demand for Replacement Parts; Accessories Declining; Garage-Equipment Market Promising—American Products, Except Accessories, Enjoy Good Sales**

*Commercial Attaché Jesse F. Van Wickel, The Hague*

Motor-vehicle registrations as of January 1, 1931: 72,000 passenger cars, 8,520 busses, 43,235 trucks, 32,000 motor cycles.

The motor-vehicle business has shown rapid development in recent years, and American makes account for 76 per cent of the passenger cars, 88 per cent of the trucks, 65 per cent of the busses, and 35 per cent of the motor cycles now in use.

**REPLACEMENT PARTS**

The following parts are meeting with the best demand at the present time: Brake linings, clutch facings, fan belts, spark plugs, springs, valves, pistons, piston pins, body hardware, gears, pinions, generators, rims, and rim parts.

The United States is the leading supplier of brake linings, clutch facings, fan belts, spark plugs, valves, pistons, piston pins and rings, stampings, forgings, gears, pinions, drive shafts, shim and shim stock, and generators, while England supplies the greater amount of chains and body hardware as well as considerable quantities of spark plugs and steering wheels. France occupies first place with respect to radiator caps and has lately increased its share of pistons, piston pins, and valves.

With the exception of springs, rims, and rim parts, the local industry does not produce any noticeable quantity of replacement parts. The trade in parts, aside from that which is done by car importers, is generally conducted by wholesale distributors who buy for their own account from foreign manufacturers. However, such replacement parts as bushings, valves, piston pins, piston rings,

pinions, which actually form parts of the motor itself, and drive shafts, steering gears, etc., are primarily handled by commission agents who sell to the wholesale trade on an indent basis. The United States supplies a considerable part of the local demand, while Germany, France, and England follow in the order named.

The replacement-parts business is primarily conducted on a cash basis, but such articles as brake lining, clutch facing, spark plugs, radiator caps, and generators are handled chiefly against acceptance of a 30 to 60 days' sight draft. Terms quoted by American and some European suppliers are said to be practically the same, although German manufacturers occasionally ship on open account. It should be borne in mind, however, that local distributors of American products have to keep larger stocks on hand, as the time required to replenish stocks is much longer than when goods can be secured from European suppliers.

#### ACCESSORIES

The demand for automobile accessories in the Netherlands has declined sharply during recent years, primarily because car manufacturers supply many accessories as standard equipment.

Items having the best demand include windshield cleaners, electric direction indicators, horns, mirrors, lights, batteries, radiator and tire covers, fog lenses, and spot lights. The demand for bumpers, locks, or windshield visors is considered practically nil; those for radiator shutters, seat covers, glare eliminators, jacks, and taximeters are extremely small.

An excellent demand exists for electric direction indicators with European makes being offered exclusively. The Netherlands supplies some of this business, though Germany contributes the greater share.

Electric horns are mainly imported from France and Germany, as are tire pumps, shock absorbers, and taximeters. The Netherlands industry is the chief supplier of lenses, number plates, fog lenses, and seat covers. The great majority of the mirrors and novelties sold in this market comes from Germany, which also supplies part of the demand for lubricating systems, tire pumps, shock absorbers, tire gauges, and batteries. In general, German exporters are competing sharply of late.

The United States supplies principally heat indicators, vacuum systems, horns, windshield cleaners, radiator shutters, jacks, spot lights, lubricating systems, batteries, and tire gauges. Practically all windshield cleaners are of American origin, while more than half of the jacks, a good deal of the demand for lubricating systems, and about 30 per cent of luggage carriers and trunk racks are supplied by American firms. The United States share of the accessories business, however, is comparatively small, and the higher prices quoted are said to be the principal deterrent.

Accessory trade is mainly in the hands of wholesale distributors, who supply local garages and service stations, which in turn act as retailers of these commodities. There are very few retailers outside the garage business engaged in the sale of accessories. Wholesalers generally object to handling articles for which they can not secure exclusive sales rights. As a rule, they prefer not to handle competing lines, but often a manufacturer of a good-selling specialty makes

products which duplicate others already sold by the wholesaler. In such cases the wholesaler may consider it unnecessary or unwise to inform the manufacturer that he is handling the competitive article.

It is therefore necessary to exercise care in the appointment of wholesalers or indent agents by endeavoring to ascertain information on lines already handled. Some of the accessory business is in the hands of indent agents who sell to the wholesale trade. It is not believed that such representatives always offer the most desirable channels of distribution, but as the number of well-introduced wholesale distributing houses is very small, not exceeding half a dozen in total, recourse has generally to be taken to such channels.

Wholesalers customarily demand a discount of 50 and 10 per cent, of which they grant the retailers usually  $33\frac{1}{3}$  per cent; however, in some instances, wholesalers even increase this margin if a substantial order is involved. American manufacturers commonly quote terms of payment documents attached to draft, which must be paid 30 days after acceptance. German and French suppliers usually grant 30 to 60 days open account.

#### GARAGE AND SERVICE-STATION EQUIPMENT

The number of modern-equipped garages and service stations operating in the Netherlands is still comparatively small, but it is reported that at the present time there are approximately 100 prospects sufficiently important to consider the purchase of up-to-date garage and service-station equipment. In addition, there are approximately 2,000 small garages, which might expand their activities in the future and become prospective customers. At the present time most of the more or less modern garages are operated by automobile importers who are lately realizing the advisability of employing such equipment as auto lifts, brake-testing machines, cylinder-boring machines, cranes, drive-shaft alignment devices, test benches, etc.

The number of experienced mechanics is very small, and lack of effective control systems frequently create unsatisfied customers.

The garage equipment most popular in this country includes cylinder-boring equipment, drive-shaft alignment devices, axle and chassis presses, motor stands, test benches, piston grinders, presses for axles and chassis, air compressors, reamers, lifts, portable drills, valve grinders, brake-testing machinery, and car washers. The great majority of passenger-car tires are changed by hand tools, though lately some of the largest garages are employing mechanical tools, which have been in use for some years by bus lines and large truck operators. Electricity is amply available in this country. Practically all of the garages are wired and can therefore avail themselves of service appliances. Though rates charged for electric current vary considerably, it is reported that rates are not excessive and electric appliances can be employed on an economical basis.

The United States has thus far supplied the bulk of the demand for garage equipment, with England and Germany offering low-priced "imitations." It is believed, however, that France and Denmark will shortly have to be considered as severe competitors in these lines. This is primarily the result of the fact that American manufacturers have patented special tools, drills, and lifts, and have

lately adopted the plan of selling their drawings to French and Danish producers who are now turning out these tools on a royalty basis. The result is that the local distributors who have introduced certain equipment have to supply future needs from the European manufacturers. The latter often make certain reservations, since they well realize that the local distributor will not readily give up a line for which he has done considerable work. It is reported that in several instances the local distributor can continue handling the special tool only if he is prepared to sell several other products made by the European manufacturer. This policy will, if carried through, adversely affect the American business in this territory. There is no garage equipment made locally.

The trade in garage equipment is usually managed by European sales representatives of American manufacturers having headquarters in Europe. These representatives appoint one wholesale distributor in this territory who supplies the garages. As the garages are the ultimate consumers no trade discount is granted to them by the wholesaler. Until recently, the Netherlands was a quality market and price was given only second consideration. However, a tendency is observed lately in favor of the lower-priced "imitations" which are offered by competitive European producers.

In the absence of American traveling representatives best distribution can be obtained by the appointment of a wholesale distributor for certain products, while others again should be handled by indent agents. For instance, if the wholesalers for one reason or another are not prepared to push the sale of a certain product, the indent agent might introduce it by approaching the principal consumers direct. Such firms have an adequate staff of experienced salesmen on the road traveling by cars and thus cover the entire territory thoroughly, even into the rural districts. However, as the number of such concerns is rather restricted, recourse will have to be taken to the smaller type of wholesaler or indent agent. Terms of payment granted by American and European manufacturers are generally on the basis of 30 to 60 day time draft. However, several European producers have lately adopted the principle of shipping consignment stocks to their distributors.

Replacement parts, accessories, and garage tools are almost exclusively advertised in the leading automotive trade papers. Very little use is made of daily newspapers; however, show cards and posters are customarily displayed in garages and retail shops, which are operated by the larger type of wholesale distributors.

It is believed that dissemination of data concerning the systems adopted by well-managed American garages and service stations through local distributors might pave the way toward increased use of such equipment. Much propaganda and educational work has still to be conducted in this territory in order to develop a market which should offer a potential outlet in the near future for American manufacturers of special tools and equipment.



**NORWAY**

**Indications Point to a Steadily Increasing Demand for Replacement Parts, Accessories, and Service Appliances—The American Percentage is Large, but European Competition is Increasing, Especially with Regard to Accessories and Garage Equipment**

**Commercial Attaché Marquard H. Land, Oslo**

Motor-vehicle registrations as of January 1, 1931: 30,099 passenger cars, 2,023 busses, 14,351 trucks, 5,818 motor cycles.

Norway is a comparatively small market from an automotive point of view, although car registrations have shown a consistent increase for some years and the total number of vehicles now operating is approximately 50,000. The annual increase has been from 5,000 to 6,000 cars and trucks, which is expected to continue with only small variations owing to temporary conditions, such as the present business depression.

**REPLACEMENT PARTS**

The market for replacement parts is developing gradually, although perhaps not quite at the same rate as the increase in registrations would indicate. It should be kept in mind that practically all bodies for trucks and passenger cars used as taxis are built locally, so that this is a comparatively good market for body hardware, upholstery material, etc. One item for which there is an unusually heavy demand is brake lining, because of the mountainous territory in many parts of Norway, which necessitates the constant use of brakes. Aside from this, the market for parts is quite normal, consisting entirely of the demand created by the necessity for replacement.

Foreign competition is unimportant aside from parts supplied through the Norwegian distributors of European cars. There is no domestic competition to speak of, the only exception being cast-iron pistons. The manufacture of aluminum alloy pistons has also been considered, and piston rings have been made in small quantities. It is estimated that the American participation in the parts trade is 90 per cent.

American manufacturers sell the Norwegian trade through agents or direct to wholesalers. The more important wholesale firms are organized as an association, and while they may prefer direct connections with manufacturers, as a rule there is no objection to purchasing through a legitimate agent. Because of the limited market there are as many or more agents as wholesalers, which has been the cause of certain trade abuses creeping in, such as agents selling direct to consumers and service stations. When this is done the wholesalers' association always boycotts the agent. In making new agency connections the American manufacturer should carefully investigate the local standing of applicants. Distribution of replacement parts and accessories has always been in the hands of automobile dealers. There are very few concerns specializing in the distribution of these items. These few find it difficult to make sufficient profit, and some of them have secured the distribution franchise of passenger cars and trucks.

The terms offered distributors and dealers vary considerably. Firms who are members of the association secure terms of 60 and 90 days' sight. Manufacturers who have not been in this market previously occasionally ask for cash with order, letter of credit, or shipping documents against sight draft. The latter may be acceptable on items that have real merit, but ordinarily Norwegian distributors can purchase on time, and anyone desiring to enter this market should be prepared to extend fairly liberal terms.

The leading distributor centers are Oslo, Bergen, and Trondhjem. It is customary to appoint a general agent or distributor for all of Norway, with headquarters in Oslo and subagents in the other centers. Some of the larger wholesalers cover the entire country from Oslo. The former practice of having general distributors in Copenhagen is still carried out by some American manufacturers, but it is extremely unpopular in Norway.

The most effective advertising method is consistent publicity in the automotive trade papers of which there are two important ones. Occasionally newspaper publicity is used also, but more for specialties in the accessory line. If a new theft-proof lock were to be introduced, a newspaper campaign would be the most effective way of doing it, while distributors of replacement parts usually prefer the consistent use of small space in trade papers. Printed folders are also quite effective, and as most of the car owners know the English language there is no particular objection to using the same copy as the original, with the imprint of the local dealer. The larger parts and accessory distributors issue illustrated catalogues for distribution among garages and service stations.

#### ACCESSORIES

The Norwegian demand for automotive accessories is increasing for the same reasons as given for replacement parts. Of the items that are not standard equipment on new cars the following may be mentioned as being of particular interest to local conditions:

During a normal winter, every passenger car, truck, and bus in operation in Norway must be equipped with chains as long as there is snow on the ground, which may be from December until April. Chains that prevent the car from skidding sideways are of particular advantage because of narrow and often dangerous roads. One such chain of domestic manufacture has been placed on the market recently. A severe winter always creates a good market for radiator covers.

The elimination of glare has been given considerable attention by the road authorities because of narrow roads and the necessity for driving with lights during the dark winter months. New regulations for headlights are under preparation now, and it is expected that all car owners will have to comply with them.

Car thefts have become more numerous and theft-proof locks more popular for that reason. A new American device was recently placed on the market, and sales are said to have been very satisfactory.

Car heaters are very much in demand during the severe winter. The hot-water type has gained in popularity during the last few

years in spite of its high price. Most of the taxicabs have recently been equipped with car heaters also.

Bumpers, horns, jacks, lubricating systems, luggage carriers, rear-view mirrors, tire pumps, shock absorbers, speedometers, windshield cleaners, etc., are standard equipment on most cars, so that the only market is for replacement and perhaps not quite as important as formerly. American manufacturers formerly dominated this trade, but European competition has been very active and is more successful in replacing American accessories than replacement parts. So far, this competition is not particularly dangerous, but it is something to be watched, especially because of the well-known European tendency to copy popular American items.

Automotive accessories are usually stocked by car agencies, garages, and service stations. There are very few if any exclusive accessory dealers, because the market is not large enough to make an exclusive accessory business self-supporting. Automotive accessories are usually marketed in the same manner and through the same channels as replacement parts. Wholesalers usually carry stocks and occasionally handle competitive lines because the market is so limited. The present distribution methods seem to cover Norway adequately.

The usual terms in this trade are the same as for replacement parts, although it is very difficult to make any definite statements, as individual cases are usually governed by competition, local conditions, etc. It is reported that American manufacturers coming into the market for the first time usually offer the same terms as competitors. When an article has unusual merit, terms can usually be dictated by the manufacturer.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Service is one of the weak points in Norway, the principal reason being the rapid increase in registrations, which has made it almost impossible to provide a sufficient number of trained mechanics. During the past two years training courses have been inaugurated, but in many localities, especially through the country districts, there is a scarcity of skilled personnel. Service, therefore, may be said to be still in its infancy, and further development and expansion of service facilities is to be expected with the corresponding demand for equipment.

The items most needed include battery chargers, brake-testing machines and cylinder-boring machines. American equipment seems to have the preference and is used more than any other. Very little equipment is manufactured locally, but in some items such as paint-spraying equipment, auto lifts, jacks, lubricating and grease-dispensing systems, European competition is becoming more evident. It is mostly from German manufacturers and is based on price. An American hydraulic lift has been copied by a Danish manufacturer and is now offered from Copenhagen in competition with the original. Domestic manufacture of service-station equipment is unimportant, although a few electric auto lifts have been made in Norway. Tires are usually changed with hand tools and repairs han-

dled by the garages or filling stations, with the exception of vulcanizing.

Electric current is available everywhere at very low rates, so that most of the mechanical shop equipment intended for Norway should be equipped for electrical operation.

Most garages are operated by automobile dealers, although there are a few entirely independent, specializing in service; as the need and demand for service increase it is possible that more will be organized. Any development along this line will be limited by the lack of trained mechanics. Service-station equipment is sold mostly through wholesalers. Recognized agents do not deal direct with service stations or garages as a rule, and for this reason it would seem to be an advantage for the American manufacturer to deal direct with distributors. In selling the Norwegian trade, distributors are usually required to give long-term credits and always appreciate liberal terms for that reason.

It might also be mentioned that the large oil companies control practically all of the Norwegian filling stations, and such equipment as gasoline pumps, oil pumps, etc., is usually purchased through these channels.

As mentioned in the initial paragraph under this heading the service facilities have improved but they are by no means adequate, except perhaps in the larger cities. However, progress is being made, and the market for service-station equipment is decidedly promising.

## POLAND

**The Market for Replacement Parts Relatively Larger Than in Many Other European Countries—American Accessories Considered Too Expensive—Use of Mechanical Garage and Service-Station Equipment Restricted**

Assistant Trade Commissioner Gilbert Redfern, Warsaw

Motor vehicle registrations as of January 1, 1931: 27,527 passenger cars, 4,293 busses, 9,440 trucks, 7,940 motor cycles.

### REPLACEMENT PARTS

Because of unfavorable road conditions and the fact that an unusually high percentage of motor-vehicle registrations in Poland comprises low-price taxicabs and busses, the market for replacement parts is relatively greater in this country than in many other markets in Europe. With about 70 per cent of the passenger cars, 80 per cent of the busses and 75 per cent of the trucks being of American make, not less than 75 per cent of all replacement parts sold in Poland are of American origin.

The largest demand in Poland is for pistons, piston pins and rings, followed by valves, gears, axle shafts, spark plugs, brake lining, springs, clutch facing, fan belts, ball, plain and roller bearings, rims and rim parts, and finally bolts and nuts of the more complex type, generators, starting and lighting equipment.

American replacement parts are extremely favorably regarded, and practically all of the items listed, with the exception of spark plugs, brake linings, springs, and small lines of axles and propeller shafts, are of American origin. Spark plugs are imported mainly from

France and England; German brake lining has flooded the market and is offered on easy terms of payment. Springs are manufactured locally, and efforts have been made to manufacture axle shafts, which are now being offered at about 30 per cent under American prices. Incidentally these shafts are being made up by the Polish distributor of an American axle shaft, and inasmuch as they can be offered at so much under the price of the American product the distributor is afforded a much larger profit.

Dealers complain that the principal evil of the automotive-equipment trade in Poland is the absence of an organization for eliminating unfair competition, price cutting, and losses caused by dealing with clients of questionable reputation. American manufacturers are strongly cautioned to exercise extreme care in Poland under prevailing conditions.

While the method of granting exclusively to one account in this market has its good side, in that it facilitates transactions for the manufacturer by working with only one account, American producers nevertheless often experience considerable collection difficulties; that is, unless the distributor is strong enough to accept *del credere*. On the other hand, a distributor or jobber working for his own account is rarely in a position to give wide enough distribution to the product marketed. Moreover, as Polish distributors usually have their own retail organizations, they are often in conflict with the trade.

Another method of distribution fairly common in Poland is to appoint a commission agent who sells from catalogues or samples, calling on all the larger retailers, or sometimes appointing a wholesaler who guarantees a minimum turnover, and then calls on all the others firms who are not direct clients of the wholesaler. Such a system often proves satisfactory, the only drawback being that such an agent is disposed to sell to firms without regard for their financial soundness, in order to secure commissions, and without adequate regard for the future collection difficulties which may arise. This situation, however, can partly be met by the manufacturer withholding the payment of commission until the account has been met in full.

Some American manufacturers have also appointed agents in either Denmark, Austria, or some other Central European country, who have had Poland included in their territory. This, however, has not proved satisfactory. Agents located abroad and working this territory usually appoint a subagent who rarely receives more than 35 per cent of the commission of the actual agent. It is quite natural therefore that his efforts are primarily directed toward breaking away from such an arrangement and going on his own. As the manufacturer whose goods have been introduced in the territory is often reluctant, or not in a position at the time to change his existing arrangement, the subagent is liable to take over a competitive franchise; and, as he is in direct contact with the trade, he can create a considerable amount of confusion for his first connection.

Foreign manufacturers usually grant parts importers 90 days after date of invoice against bills of acceptance. This credit is invariably used up in full by Polish firms, especially as in most cases it means only about 40 days after delivery of the merchandise. The internal

turnover of Polish firms is usually based on the distributing firm granting credit to its clients up to 120 days, being protected by drafts; but it is the customary practice for the buyer to request prolongation of the draft on maturity. Quite frequently, therefore, the wholesale importer does not collect in full for the goods until from six to nine months after sale. It is claimed throughout the trade that European firms have granted much more liberal terms than American manufacturers, credits up to 180 days having been frequently reported. Owing to the very unsettled conditions which currently prevail in this market, and having experienced considerable collection difficulties of late, European firms are not now so liberally disposed as they formerly were, and it is probable that for the most part they are now rarely disposed to exceed the 90 days granted by American manufacturers.

The advertising of replacement parts in this market is not practised to any extent, with the exception of "broadsides" displayed in stores, and occasional publicity in Polish automobile magazines; these, however, actually call more attention to the firm selling than to the product which is being sold. In the opinion of the trade, one of the best methods to advertise a replacement part is to distribute badges representing some part of it to every driver who comes in the store. Publicity in daily papers gives little or no results, but occasional insertions can advantageously be placed in local automotive periodicals.

Future sales prospects for American replacement parts are believed to be encouraging, notwithstanding the generally adverse business conditions currently prevailing.

#### ACCESSORIES

The demand for accessories, which has never been considered of any great importance, has recently declined in consequence of the economic depression.

Articles which are mostly in demand are lamps and electric horns, hand jacks, shock absorbers, bumpers, luggage carriers and trunk racks, lubricating systems, nonskid chains, radiator shutters and shields, tire pumps, and rear-view mirrors.

European competition is very acute in the accessory trade, merchandise coming principally from France and Italy, with small amounts from Czechoslovakia. American accessories have not yet found a market here to any extent, as they are considered too expensive by the local trade.

Accessories are usually marketed by wholesale-retail houses specializing in general automotive equipment, which purchase direct from manufacturers, or through commission agents acting as manufacturers' representatives, who call on the trade and sell from catalogues. Wholesale trade in accessories is practically unknown in this market, as the demand is relatively so small that no firm is prepared to carry heavy stocks. It is common for a distributing firm to handle several competitive articles at the same time. The present distribution organization appears to be quite adequate for the volume of trade, and no immediate expansion of the market for accessories is likely.

## GARAGE AND SERVICE-STATION EQUIPMENT

The market for service appliances expanded steadily until about a year ago, largely because the sales organization of two leading American vehicle makers in the low-price class have been devoting special attention to service facilities, making it a point that every dealer holding their franchise must provide adequate service facilities. This policy created a considerable demand for service-station and garage equipment, imports of which consisted mainly of garage tools, cylinder-boring machines, valve grinders, paint-spraying equipment, oil and grease guns, portable electric drills and sanders, gasoline pumps, air compressors, and automatic lifts.

With the high rate of dealer mortality which has occurred during the past year, several of the best service stations have changed hands and the equipment has been sold at liquidation prices.

Of the equipment which has so far been introduced into Poland at least 60 per cent is of American origin, the remainder being divided as to about two-thirds from France and one-third from Italy. Domestic manufacture is of no importance, being confined to battery-charging equipment, welding outfits, and the more simple kinds of apparatus.

In general, the use of mechanical garage and service-station equipment is considerably restricted in Poland, owing to the lack of adequate funds to install such equipment, and also because inadequate distribution and high price of electric current greatly hamper the use of electric tools.

While relatively good progress has been made in modernizing servicing in this country, dealers operating such stations are now inclined to favor hand labor wherever possible, as they claim it is more economical. For instance, mechanical tire-changing equipment is still practically unknown in this country, tire repairs frequently being done by owners themselves.

Service-station equipment is generally purchased for own account by one or two leading houses in Warsaw which specialize in this line. They expect fairly long credit from foreign manufacturers, since they in turn must sell on very easy terms. The best distributing method for such equipment is undoubtedly to have a large firm with adequate financial resources, and known throughout the country, act as manufacturer's representative and carry the equipment for its own account. It is doubtful, however, whether it will be possible to find any more firms of this type while the present depression continues; the only alternative appears to be to give the account to a commission agent selling from a catalogue.

When general economic conditions improve, the development of a country-wide network of well-equipped service stations will inevitably take place, poor roads and general lack of mechanical knowledge making adequate service particularly necessary in Poland. Because of the acute financial stringency which prevails, however, such a development is somewhat distant.

## PORTUGAL

**American Parts, Accessories, and Garage Equipment Account for Approximately 60 Per Cent of the Demand—Future Outlook Good; European Competition Increasing, Especially in Accessories**

Commercial Attaché Richard C. Long, Lisbon

Motor-vehicle registration as of January 1, 1931: 24,842 passengers cars, 500 busses, 5,215 trucks, and 3,013 motor cycles.

## REPLACEMENT PARTS

The market for replacement parts has grown considerably in the past few years and at the present time is said to be overstocked.

Replacement parts most in demand are ball bearings, brake lining, clutch facings, fan belts, spark plugs, piston pins and rings, rims and rim parts, batteries, electrical parts, valves, timing gears, and radiator parts.

European manufacturers have made competitive gains against American lines in brake lining, spark plugs, ball bearings, generators, and batteries. England and France have increased their brake-lining business, and Germany offers the most competition in the other items mentioned. Italy does a large business in ball bearings.

Domestic competition is slight, although springs, leaves, and bumpers are produced by several agricultural-implement manufacturers and sold at prices 50 per cent below imported products. American participation is estimated at approximately 60 per cent.

Leading channels of distribution in the replacement-parts trade are through special parts and accessory firms (importing wholesalers) and automobile dealers. At the present time each handles about 50 per cent of the trade; the trend, if any, is away from the dealers to independent merchants. Higher prices charged by dealers account for this fact.

As a rule, terms and prices offered by European manufacturers are far more liberal than American, and as Portugal is a price market this factor is of considerable importance. European prices are lower, discounts greater, quality is said to be improving, and terms are more than liberal. Consignment stocks, especially from Germany, are increasing. It is also reported that certain central European warehouses carrying both European and American stocks are increasing competition in Portugal at the present time through travelers offering low prices and long terms.

American manufacturers generally require cash against documents to distributors and dealers, while German producers give 90 days, French 60 days, English 30 to 60 days, and Italians 120 days. The latter are unimportant factors except in ball bearings. There are exceptions to the cash rule of American manufacturers, but these are few, and terms rarely go beyond 60 days.

The leading distribution centers are Lisbon, Porto, and Coimbra, with additional distribution through Santarem, Braga, Evora, Faro, Beja, Leiria, Vila Real, and Vizeu. Distribution may be given to Lisbon for all of Portugal, or split between Lisbon and Porto, with Coimbra as a dividing line, but included in the territory of Porto.



About the only advertising media offered in Portugal for the automotive trade are the two automotive monthlies and the daily papers. Direct-mail advertising to the automotive trade is likely to come when conditions improve but is not considered worth while until then.

America's share of the parts trade could probably be increased by the granting of more liberal discounts and longer terms, but this course is not recommended in view of present conditions. The purchasing power of the country is low, but most of those owning automobiles are in a position to buy American parts and will probably do so provided greater sales effort is put forth by local distributors.

#### ACCESSORIES

The Portuguese demand for accessories is limited to items not included as first equipment and considered as being indispensable. It is reported that the market is decreasing owing to cars being more completely equipped by manufacturers and also because of lack of money for the purchase of nonessential articles.

The accessories most in demand are bulb and electric horns, hand jacks, lamp lenses, lubricating systems, shock absorbers, taximeters, tire gauges, lights, and electric wind-shield cleaners.

European competition is stronger in accessories, owing not only to more liberal terms but to greater volume produced by European factories. France does considerable business in horns, jacks, taximeters, and wind-shield cleaners. Germany offers competition in tire pumps, radiator-heat indicators, novelties, and wind-shield cleaners, both hand and electric. As in replacement parts, greater discounts, with lower prices and more liberal terms, play an important part in reducing the share of American participation. France and Germany have made gains in the items mentioned through such means.

Domestic competition is offered in accessories from license plates, bumpers, mirrors, tire pumps, windshield visors, windshield wings, and novelties. The American share of this trade is estimated at 50 per cent of the total.

American accessories are usually marketed through exclusive distributors purchasing on their own account and operating as importing wholesalers. European manufacturers sell in the open market to wholesalers, dealers, retailers, and garages. Commission agents are practically nonexistent, as the volume is insufficient to provide a living. If manufacturers have European travelers, they can best cover the market in this manner, but if operating from the United States an exclusive distributor offers the best coverage. Stocks are generally carried by wholesalers and retailers, but as a rule competitive lines are not handled by the same company. The market is said to be adequately covered by present methods of distribution.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Little progress has been made in providing adequate service facilities in Portugal. The first service station, fully equipped with American products, was recently installed in Lisbon. There are a

few so-called service stations in Lisbon and Porto, but they are far from being fully equipped. Properly trained mechanics are rare.

The demand for such equipment is just beginning, and the items most in demand are air compressors, auto lifts, car washers, hydraulic and mechanical jacks, lubricating systems, valve grinders, towing and salvaging equipment, battery chargers, and tire-repairing machines. Practically every item of garage equipment is needed and will be purchased as time goes on.

Foreign competition is practically nonexistent, consisting principally of air compressors from France, England, and Germany, French battery chargers and hydraulic jacks, and German winches and garage tools. American equipment predominates in such installations as now exist.

Simple service-station equipment, such as motor stands and wheel pullers, are made locally. Further manufacture of such simple apparatus is likely. Hand tools are generally used for changing tires, and repairing is done in garages as much as in service shops.

The principal reasons for restricted use of mechanical equipment in Portugal have been the limited demand for service and the lack of effort in installing same owing to shortage of money and unfamiliarity with the possibilities offered. Electrical current is generally available in the larger centers, but not on an economical basis. Present indications are that an increased demand will develop in the future for such equipment, as there is a trend toward the opening of more independent garages, although most garages are now operated by automobile dealers.

Logical distribution areas for the equipment under discussion are the north and south sections, covered through Lisbon and Porto, unless distribution may be obtained through the whole country from a firm located in Lisbon with branches and travelers covering all of Portugal. The latter is not generally recommended. Coimbra should be included in the Porto territory for reasons of proximity.

In the absence of a direct American traveling representative, the best selling method would be through large wholesalers, as manufacturers' agents and jobbers do not exist. Present distribution methods of equipment for garages and service stations embrace the use of factory travelers and sales through machinery houses. A new line just being introduced will be handled by a wholesaler, who will also operate a service station, but such a connection is not recommended as a general rule.

Sales to this market should either be cash in New York or cash against documents for the first orders, and no credits to be extended until after careful investigations have been made. However, liberal terms to agents would aid them in making greater sales to prospective buyers through the ability to grant credit.

There is a growing recognition of the need for better and more modern service and garage equipment but its use will likely develop only slowly unless there is a decided upturn in the general economic situation. Portugal offers almost an untouched market for such equipment, but lack of money and credit will tend to hinder any extensive development in sales for the present:

## RUMANIA

**Replacement Parts Demand Good, Accessories Declining, Outlook for Garage Equipment Promising**

Assistant Trade Commissioner Kenneth M. Hill, Bucharest

Motor-vehicle registration as of January 1, 1931: 27,000 passenger cars, 5,200 busses, 4,800 trucks, and 2,500 motor cycles.

## REPLACEMENT PARTS

American motor vehicles account for approximately 80 per cent of the total registration, and as a consequence American products occupy a dominant position in the parts trade.

The parts most in demand include bearings, bolts, brake lining, springs, radiator caps, piston and piston rings, steering knuckles, brake yokes, spring clips and links, gears, pinions, drive shafts, and generators. The items in which European competition is mostly felt include bearings from Sweden and Germany, brake lining from Germany, France, Italy, and England, and springs from France. Other parts somewhat less in demand are bushings, fan belts, spark plugs, valves, piston pins, body hardware, rims, and rim parts. There is competition from Germany in fan belts and spark plugs, and France offers a limited amount of the latter item. In the replacement-parts field, the American manufacturer is not seriously threatened by either European or domestic competition in most lines.

The Rumanian dealer is fully acquainted with the latest developments in automotive design, and the popularity of American goods is not increased if American exporters attempt to ship material which is out of date or inferior in quality, as has been done in some instances.

Both replacement parts and accessories are generally distributed through garages and automotive dealers. The special parts and accessory dealer does not play an important rôle in this market.

At the present time Rumania is experiencing a severe economic crisis. Being principally an agricultural country, there is very little money in view of the low prices of agricultural products. For this reason credit is an outstanding item of importance in making sales. Ordinarily replacement parts are sold on 60 days' sight, documents against acceptance in cases of established credit. In recent months both American and European firms have been making extra concessions, running as high as four months, in an effort to maintain business from Rumania.

Bucharest is the natural center of the automotive trade, and practically all firms which have national representation have their headquarters in this city. There are, of course, a few firms in other parts of the country, also prepared to give efficient national distribution, but as a rule these are smaller and less important.

Both replacement parts and accessories are advertised chiefly by window display in Rumania. There is a small amount of consumer advertising done in the daily press and in the automotive journals, and there is also an important amount of poster and billboard publicity.

In proportion to the number of automobiles in use, Rumania is probably better than an average market for replacement parts for two reasons. In the first place, the roads of the country are far from good, and in the second place the average Rumanian is not a careful driver. As a result certain parts of the cars wear out and are broken much more rapidly than would be the case in some other countries where the highways are in good condition and cars are operated with care.

#### ACCESSORIES

The Rumanian market for accessories is comparatively small and at present is decreasing. The average owner of a car is satisfied with the accessories included as standard equipment, and in view of the scarcity of money he does not feel like buying accessories which do not materially improve the mechanical operation of the car. Another feature of this market which greatly discourages the purchase of accessories is the prevalence of petty thievery. Radiator caps, gasoline-tank caps, parking lights, and other accessories which are easily removable are apt to be stolen if the car is left in the street unguarded. When a private car is left in a public garage a thorough examination is always made by the attendant to see that all removable parts are in place, so that no claims can be made against the garage in case something has been stolen.

Accessory items most in demand include tire chains, radiator and tire covers, bulb horns, jacks, lamps and lenses, lights, theft-proof locks, lubricating systems, luggage carriers, tire pumps, shock absorbers, speedometers and taximeters, tire gages, and windshield cleaners.

Among the items in which American lines are believed to be prevalent are chains, locks, shock absorbers, and windshield cleaners. Bulb horns are practically a monopoly of France, and since every motor car is compelled to carry a horn of this character good business results. Lamps, lenses, and lubricating systems of German origin are particularly popular, while both French and German tire pumps, taximeters, and speedometers are widely used.

In the accessory trade, the share obtained by American manufacturers is much less than the share of the parts business. The Rumanian motorist prefers European accessories possibly more than those of American manufacture, and the European product is much more able to compete on a price basis.

In general accessories are sold through commission agents direct to the wholesalers and sometimes to large retailers. The retail outlets are in almost all cases the same as for replacement parts, only a few specialty stores being found in the country. Agents do not, as a rule, attempt to carry competitive lines although this is believed to be partially due to the inclusion of the customary "no other competitive lines" clause in most of the agency contracts.

Terms of payment in the accessory trade are somewhat similar to those granted for replacement parts, averaging a little longer term if anything. Acceptance drafts up to six months from sight are reported to be far from rare, although this is probably due to the heavy competition, slack market, and the consequent use of liberal terms as an inducement to buyers. All accessory manufacturers,

both American and other, appear to be offering inducements of one kind or another although liberal terms of credit are most universally used.

It is interesting to note that of the exceptionally large number of moratoriums granted under the Rumanian concordat law during the past year, a relatively high percentage applied to firms handling automotive lines.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Little progress has been made in providing really adequate automobile service facilities in Rumania.

This is believed to be due largely to the tendency of individual car owners to service their cars themselves or to have it done by their chauffeurs. Furthermore, in proportion to the number of automobiles in the country there are very few properly trained mechanics.

The equipment used in the majority of garages is decidedly antiquated from the American standpoint.

Gasoline pumps and valve grinders are the items in greatest demand, followed by battery chargers, garage tools, welding outfits, wrenches, fender and radiator repair outfits, reamers, tire repair and changing machinery, jacks, paint-spraying equipment, cylinder-boring machines, high-pressure chassis-lubricating systems, car washers, and air compressors.

Up to the present time there has been no local manufacture of garage equipment and competition from abroad is met only in certain special lines such as greasing machinery, which is obtained at times from Germany.

Modern garage equipment is slowly entering this market and is almost exclusively of American manufacture.

Tires are changed almost exclusively by hand tools, as there are only a few mechanical tire-changing apparatus in the whole country. Repair work on tires is seldom done in special shops. The motorist generally does his work himself, using some kind of quick-drying patch.

The price of electric current might be regarded as an added deterrent to the use of modern mechanical equipment in addition to the lack of capital and relatively small number of cars to be serviced.

Although most of the larger and more modern garages are operated by dealers, there is a larger number operated independently and often as a side line.

In Rumania the city of Bucharest is decidedly the logical distribution center for garage equipment. The larger dealers are almost without exception located there with subagents in the other principal cities. It is Bucharest, however, which will continue to supply the principal demand for modern garage equipment for some time to come.

The manufacturer's agent has heretofore been handling practically all garage equipment imported into Rumania, and it is believed that this method of distribution is quite satisfactory for the present. In the garage-equipment trade terms are generally cash against documents.

According to the local trade the market for garage equipment in Rumania should improve decidedly within the next few years, but at the present time owners are not inclined to make the necessary investment in order to bring their shops up to date.

## SPAIN

**Trade in Replacement Parts Temporarily Affected by Adverse Local Conditions, but General Trend Toward Increasing Volume—Accessories Declining—Notable Progress Being Effected in Automobile Servicing Facilities**

Commercial Attaché Charles A. Livengood, Madrid

Motor-vehicle registrations as of January 1, 1931: 146,030 passenger cars, 43,620 trucks and busses, 13,403 motor cycles, including registrations in the Canary Islands.

### REPLACEMENT PARTS

The main trend of the Spanish market for replacement parts is decidedly toward increasing volume. The high investment value which an automobile represents in Spain leads the owner to prolong its period of service considerably beyond that customary in the United States; this practice, together with the relatively large increase in automotive registrations during the past five years, has widened the demand for replacement parts.

The year 1930 reflected the general shrinkage in business, which extended well into the year 1931. This was accentuated by the prolonged and extensive decline in the value of the peseta, which had the effect of steadily advancing the peseta cost of imported goods to the consumer and consequently of restricting sales. Also, with the termination or suspension of various public-works projects, many trucks were laid up, thus temporarily diminishing an important source of demand for parts. In spite of these unfavorable factors, however, the parts business has been affected less than the automotive trade in general, and dealers have reported only a moderate decline in their business during 1931 as compared with the preceding year.

If general business and other conditions permit a continuance of the rapid and healthy increase in automotive registrations which was witnessed in the years 1927 to 1929, inclusive, the Spanish market for spare parts should be most promising.

While practically all items classified as replacement parts have more or less demand, the following are reported to have relatively greatest importance: Brake lining, clutch facing, chains, fan belts, spark plugs, valves, pistons and piston pins, and rings, gears, and pinions.

It is estimated that from 70 to 80 per cent of the replacement parts sold in this market comes from the United States, with a tendency for this proportion to increase.

American bearings find severe competition on a price basis from French and Italian manufacturers. It is estimated that 60 per cent of the brake linings are European. Spark plugs from the United States supply the greatest share of the demand, but competition is encountered from French and German manufacturers. American

valves, pistons, and piston rings meet competition from those of local manufacture as well as from producers in France and Italy.

Springs are largely of domestic manufacture. Body hardware is generally offered by German producers at prices less than one-half of those required for American goods. Approximately 70 per cent of the starting and lighting generators come from the United States. France, Germany, and Italy are all factors in this market and to a lesser degree Great Britain and Switzerland. It must be remembered that while the bulk of the automobiles imported are American, the French and Italian vehicles have always had a share in the market worth considering; the number of French and Italian cars in Spain needing parts is proportionately greater than is the present importation from those countries. European parts are sold on a price basis which American houses do not attempt to meet.

Domestic manufacture is also a factor of some importance. Springs, axle shafts, valves, fan belts, brake linings, and batteries are all produced locally.

The leading distribution centers are Madrid and Barcelona, with opinions varying as to which of the two is preferable. Barcelona has the advantage of being in the most highly industrialized part of the country, while Madrid is more centrally located and is in closer contact with governmental offices. The experience of many firms demonstrates that all of Spain can be covered satisfactorily by a distributor located in either city. To a lesser degree Bilbao is also considered a possible location for the distributor.

The most common method of distribution is that of appointing exclusive representatives for all Spain, located in Barcelona or Madrid. These representatives buy the merchandise on their own account, and through traveling salesmen sell to repair shops, garages, automobile dealers, and retailers. A noticeable trend is for the sub-distribution to be handled increasingly by independent dealers at the expense of the automobile dealers.

Another distribution method is through the appointment of a commission agent who takes orders and makes no attempt to carry stocks. A few representatives of this character have built up a good clientele throughout Spain, representing a number of foreign manufacturers.

Customary terms allowed to the larger distributors by American manufacturers are on the basis of 60 to 90 day drafts accepted on arrival of documents. English houses are said to grant on an average of 30 days' more credit than is given by American firms. French terms of 4 months, German of 5, and Italian of 6 months are reported as common. There is some tendency toward the supplying of consignment stocks, but this is more noticeable with regard to heavy equipment.

Terms granted by distributors to their clients depend upon individual conditions, but a common arrangement is for open credit, payment to be made 30 days after the end of the month of the sale.

Advertising methods reported as most effective consist in mailing by the distributor of advertising literature in Spanish, which has been supplied by the manufacturer. The leading newspapers are also employed, as are the automotive trade magazines. Most of the latter, however, are regional, so that few offer national distribution.

### ACCESSORIES

As the tendency is now for cars to come equipped with such accessories as are demanded, the interest in this class of business is relatively decreasing. Novelties have a considerable attraction for Spanish buyers, but the duration of this demand is problematical. American manufacturers should see that all articles before being sold in Spain are duly protected by patent registration, as accessories of easy imitation may be copied by local manufacturers.

Aside from the accessories which meet with interest because of their novelty, articles most in demand include horns, lights, lubricating systems, shock absorbers, tire gauges, etc.

French competition in the accessories line is especially strong, particularly in such items as bulb horns, jacks, head lamps, and speedometers. Both France and German manufacturers not only give longer terms than those offered by American houses but they also offer accessories at prices in many cases 50 per cent below those of American products; an added advantage of the French manufacturer is the ease with which traveling salesmen from France can cover the Spanish market. American products account for from 40 to 60 per cent of the present demand. Competition from domestic products is encountered in bumpers, bulb horns, license plates, trunks, tire pumps, seat covers, etc.

While most of the distributors of parts also handle accessories, it is common practice to ignore the distinction between distributor and subdealer in the marketing of accessories. Thus houses in Barcelona and Madrid, as well as in Seville, Valencia, Bilbao, etc., may act as importers and at the same time sell direct to the ultimate consumer. The granting of exclusive representation is, therefore, less common than in the case of replacement parts, and it is not unusual for a house to handle competing lines. Stocks are carried by the dealers.

### GARAGE AND SERVICE-STATION EQUIPMENT

Largely through the pressure of the automobile manufacturers great progress in providing adequate service facilities has been made in the last two or three years, and indications are that the next few years will witness still greater improvements. The quality of mechanics employed is rapidly improving as the use of automobiles becomes more general, and in the larger establishments workers of adequate training and ability are employed.

The items most used at present are air compressors, battery chargers, garage tools, jacks, paint-spraying equipment, portable drills, valve grinders, and wrenches.

It is estimated that from 80 to 90 per cent of the total imports of this class of equipment comes from the United States. Among articles of European competition are French air compressors, brake testers, hydraulic jacks, and paint-spraying equipment; garage tools from France and Germany, and Dutch battery chargers. One hydraulic jack is made in Spain, but in general the domestic manufacture of garage and service-station equipment may be stated to be negligible, and there are no visible indications of an important growth in local production in this field.



Among the items which have recently been introduced into this market are auto lifts, car washers, high-pressure chassis-lubricating and grease-dispensing systems, polishing machines, and wheel-alignment equipment. There are probably not more than a half dozen brake-testing machines in the country. Cranes are only slightly used; the use of paint-spraying equipment is increasing; very few sales are found for tire-repairing machines, including tire changers and vulcanizers.

From the standpoint of power, Spain is well equipped for the use of mechanical devices. Electrical energy is available in practically every section at industrial rates which render its use practicable. On the other hand, the low wages paid laborers and mechanics tend to offset the incentive for the use of power machinery, and the high initial cost of such equipment in comparison with the means of the average garage or service-station owner constitutes an additional obstacle of importance. The comparatively limited distribution of automobiles in the country would render the purchase of power equipment profitable only in the more populated centers.

In spite of these obstacles, the trade is alert to developments of power service equipment, and considerable improvement in this line may be expected in the future.

At present, tires are changed mainly with hand tools. Tire repairing is done in repair shops.

Possibly 50 per cent of the garages are operated by automobile dealers, but the trend is toward operation by independents.

American equipment is largely sold through houses in Barcelona and Madrid, which cover Spain through the medium of traveling salesmen.

The same terms apply to garage and service-station equipment as to replacement parts, although, owing to the higher unit cost of such material, there is a tendency to ask for extended credit.

There is decidedly a growing recognition in Spain of the need for better and more modern service and garage equipment, and when the present business depression disappears the prospects are that development along this line will show a noticeable increase.

## SWEDEN

**A Good Demand Exists for Replacement Parts and Accessories, with Promising Outlook for Service Appliances—American Participation Large in All Lines**

Trade Commissioner Basil D. Dahl, Stockholm

Motor-vehicle registration as of January 1, 1931: 103,893 passenger cars, 2,837 busses, 38,543 trucks, and 56,678 motor cycles.

The motorization of Sweden has gone forward rapidly, especially during the last 8 or 10 years. This development has been accompanied by a steadily increasing demand for replacement parts, accessories, and garage and service-station equipment. The number of motor cars in use increased by more than 600 per cent during the period 1920 to 1930.

## REPLACEMENT PARTS

The replacement parts that are most in demand in Sweden are brake lining, spark plugs, radiator caps, pistons and piston pins, screws, piston rings, body hardware, and upholstery material. However, there is also a good demand for other replacement parts, and it can be said that, based on the number of vehicles in use, the demand is proportionately about the same as in the United States.

The fact that for several years no less than approximately 90 per cent of the passenger cars and 80 per cent of the trucks in use in Sweden at any particular time were of American origin, has resulted in the development of a good market for replacement parts of American manufacture.

Competition from domestic manufacturers is almost entirely limited to ball and roller bearings, bolts, brake lining, bushings, springs, forgings, body hardware, upholstery material, gears, and, to a limited extent, spark plugs. However, these parts also are imported from the United States and in most cases are sold in much greater quantity than those of domestic manufacture.

It is estimated that about 75 to 80 per cent of the replacement parts sold are of American origin. The competition offered by Germany, England, France, and other European producers is of minor importance, owing to the small percentage of the motor vehicles in use in Sweden which are manufactured in those countries. In general, the owner of an American motor car in Sweden insists on replacement parts of American manufacture. Perhaps the leading exceptions to this general rule are bearings, brake linings, body hardware, and upholstery material.

Most of the owners of motor vehicles, especially of passenger cars in Sweden, take pride in keeping their cars in good appearance and good repair. It should also be noted that the retail prices of motor vehicles of American origin in Sweden are about 35 to 50 per cent or more above the list price in the United States. This tends to make the owner of a passenger car keep it in a good state of repair and perhaps drive it a year or two longer than he would if the initial outlay and annual depreciation were less. Furthermore, Swedish mechanics usually are rather capable and charge less for their time than is the usual case in the United States.

Automotive replacement parts usually are marketed in Sweden through distributors who purchase on their own account direct from the manufacturer, who keep stocks and who have traveling salesmen who cover the entire country. But some manufacturers operate through commission agents who sell to the wholesalers, the manufacturers of motor vehicles, the larger distributors of motor vehicles, and in some cases, to the largest dealers of replacement parts.

The wholesalers sell to the retailers, including the larger garages, and these, in turn, sell to the ultimate consumer. There is little opportunity for a commission agent because the importing wholesalers have exclusive sales rights for manufacturers of replacement parts and do not stock several makes of the same parts unless they must do so in order to get the business. Also, the wholesalers feel that if they purchase through an agent there is merely another profit to be added and the parts thereby become more expensive. There are no

significant distribution trends evident, and it is felt that the present channels adequately cover the market.

At present there are about 22 wholesalers specializing in these articles in Sweden, as well as 24 distributors of and 325 dealers in motor vehicles.

Importers of replacement parts often pay cash against documents, but the usual terms are 60 to 90 days' sight, largely due to the keen competition that exists. Foreign manufacturers, American as well as German, English, French, and others, sell on open account to well-established firms of unquestionable repute.

The leading distribution center in Sweden for the automotive trade is Stockholm, but Goteborg, Malmo, and Sundsvall also are important. An American manufacturer of parts generally should endeavor to interest a firm in Stockholm in acting as his distributor, because Stockholm and vicinity is the most important market area in Sweden. All of the local firms that are large enough to act as distributors have their connections in the other cities in Sweden, on whom their traveling representatives call at regular intervals, and some operate their own direct branches. Goteborg is the distribution center for western Sweden and Malmo for southern Sweden, while Sundsvall is the commercial center of the northern part of the country. Stockholm has a population of about 525,000, Goteborg of 525,000, Malmo of 125,000, and Sundsvall of 20,000. One large truck distributor in Sweden has its head office in Karlstad but also has an office in Stockholm. This concern has grown to extensive proportions and is qualified and equipped to act as the Swedish distributor for American manufacturers of automotive parts and accessories even though its head office is not in Stockholm.

The most effective advertising media are the daily newspapers in the largest cities, especially those in Stockholm, and a few of the periodicals which also have nation-wide distribution. Signboards and posters also are used to a limited extent, especially by distributors of passenger cars and trucks. Slides are often shown on the screens in the motion-picture houses. However, their use seems to be slowly but steadily disappearing.

Considering automotive replacement parts as a whole, the competition offered in this market by domestic and foreign manufacturers is not severe, as stated above, and they have not made any appreciable gains during recent years against American producers. In general, the stiffest competition encountered by any particular American producer is from the other American manufacturers of similar items that are represented in this country. Of course, the severity of the competition is to a considerable extent dependent on the aggressiveness and ability of the Swedish distributor.

#### ACCESSORIES

There is a good demand for automotive accessories in Sweden, and the total sales has increased from year to year. The market was a little slow in 1930, however, and this condition is expected to continue throughout 1931.

The long and severe winters in Sweden are to a large extent responsible for the active demand for nonskid chains, radiator, hood,

and tire covers, radiator heat indicators, hand jacks, electric wind-shield cleaners, and car heaters. Radiator shutters and shields are not in general use by owners having cars purchased before these were part of the equipment on new cars. There has been a good demand for electric horns, speedometers, shock absorbers, luggage carriers, trunk racks, and bumpers. As far as most of the other accessories are concerned, the Swedish market is very similar to that of the United States. License plates are not imported; they are ordered by the car owner from the distributor or from a garage and the number given him is painted on the plates by the seller. Wind-shield wings are seldom seen.

American accessories supply approximately 50 per cent of the demand in Sweden, and the major portion of the balance is taken care of by domestic producers. As in the case of replacement parts, some of the American-made accessories meet with very little competition. The principal items in this group are glare eliminators, radiator heat indicators, lubricating systems, speedometers, and tire gauges. On the other hand, bumpers, chains, license plates, luggage carriers, and trunk racks are supplied almost entirely by domestic producers. Jacks of all kinds, lamps, shock absorbers, wind-shield visors, wind-shield cleaners, and novelties of various kinds are imported from the United States and Germany to a considerable extent but also are made locally. There is a good demand for taximeters of American origin. In the case of a few accessories, such as jacks, nonskid chains, bumpers, luggage carriers, and trunk racks, domestic manufacturers have been gaining in this market during recent years at the expense of American producers.

Proximity and somewhat lower prices and in some cases more liberal credit terms are the principal reasons for the increase in competition offered by domestic and European manufacturers.

The distribution of automotive accessories is effected in the same way as that of replacement parts. Whether or not it is advisable for American manufacturers to be represented in Sweden by an agent or by a wholesaler (the latter is in some cases a passenger-car distributor) depends largely upon the importance they attach to the keeping of stocks by their distributors. In case they feel that this is essential, they should endeavor to establish a connection with a reputable importing wholesaler capable of covering the entire country. However, it should be borne in mind that having a wholesaler as a distributor tends to limit sales for the reasons that it is not general practice in Sweden for one wholesaler to purchase from another.

If the American manufacturer is represented by an agent he can expect to place his products with several wholesalers provided prices are competitive and they do not have exclusive sales rights for similar articles. There are only a few agency firms selling automotive replacement parts and accessories in the country, and they have what they consider complete lines and satisfactory connections.

Most Swedish wholesalers and importers of automotive replacement parts, accessories, and garage equipment prefer to do business direct with the manufacturer instead of dealing with a combination export manager or export commission house, unless there is no other way for them to get the line or lines they are seeking. The preference

for dealing direct is principally due to the fact that they feel that prices are higher unless they buy direct, also because some of the dealers in automotive parts and accessories have had unfortunate experiences with intermediaries, which have resulted in the loss of both money and good will to them.

American manufacturers who send traveling representatives to Sweden should, if possible, make it a practice to select either Americans or Swedes for these positions. It should also be borne in mind that it is usually bad practice to give exclusive sales rights in Sweden to a firm located in some other European country. It seldom fails that an equally good Swedish concern will develop a larger annual sales turnover than a company located outside. National sentiment runs high in Sweden and should be respected.

The terms usually granted by foreign manufacturers of accessories to the Swedish importers are, in general, the same as those granted by the exporters of automotive replacement parts. It is to a considerable extent due to the practice of the foreign manufacturers of automotive accessories who have succeeded in getting established in this market that terms of 60 to 90 days' sight are customary in this trade. A few foreign manufacturers of accessories keep a consign-ment stock in Sweden, but it can not be said that this is a general practice. It is not advisable to do so unless the American manufacturer or exporter involved knows from experience that his Swedish distributor is reliable, and that his doing so would result in his getting business that he most likely would lose if he did not keep such a stock. A considerable amount of business for various kinds of accessories is done on the small-order quick-delivery basis. However, most of the Swedish distributors carry their own stocks, and American manufacturers should adhere as closely as possible to this practice. If they are represented by agents, the case is somewhat different, because it is seldom that an agency house in Sweden will carry even a small stock of their best sellers.

Domestic and, in some cases, German manufacturers of accessories quote slightly lower prices than do American producers, and they also have been found willing to grant more lenient credit terms in order to get established in this market. American producers, even those who are firmly established in Sweden, must keep their prices at rock bottom and do their utmost to cooperate with their distributors in promoting sales. It is by no means easy to find a new distributor even for those manufacturers whose products have become well and favorably known in this market because the reputable and desirable Swedish houses have what they consider complete lines and usually seek new connections only when a line that has been carried is dropped.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Considerable progress has been made during the last few years in providing adequate and up-to-date automobile servicing facilities in Sweden. This is largely due to the propaganda that has been made by the Swedish branches of two well-known American manufacturers.

In each of the larger cities in Sweden there is at least one modern and up-to-date garage which employs able and experienced me-

chanics, and the service provided corresponds quite favorably with what is considered good in the United States. Similar garages also are found in some of the smaller cities in Sweden. There are few small towns that do not have at least one garage, but their servicing facilities are comparatively limited. The modern garages in Sweden do not carry a large and assorted stock of parts and accessories, but they have connections with suppliers who can make quick delivery. It is not often that a car owner is confronted with long delays when his car must be repaired or serviced. All the leading garages in Sweden are equipped for washing, greasing, and oiling cars, give free crank-case service, free air, free storage-battery inspection and testing, have water available at the gasoline pumps, etc. The leading passenger-car distributors maintain their own service stations and give considerable free service to the users of the cars which they sell.

Some of the skilled mechanics employed in the garages in Sweden have had experience in the United States. Generally speaking, the skilled and experienced Swedish mechanic is able, careful, conscientious, and takes great pride in his work.

The following equipment is most in demand in Sweden at present: Auto lifts, brake-testing machines, car washers, cylinder-boring machines, cranes, garage tools, hydraulic and mechanical jacks, high-pressure chassis-lubricating systems and grease-dispensing systems, oil and grease guns, oil-dispensing pumps, portable drills, reamers, tire-repairing machines, including tire changers and vulcanizers, towing and salvaging equipment, valve grinders, wrenches, and wheel-alignment equipment. It should not be assumed, however, that because these items are most in demand at present and really needed by many of the garages to enable them to function properly and efficiently that large quantities will be sold in the near future. Dealers in this equipment meet very strong sales resistance because the garage owners are not sold on the idea that it is good business to invest in equipment of this kind. Furthermore, the owners do not pay their mechanics as high wages as are paid in the United States, and neither do they get as high prices for servicing, other things being equal. However, the larger garages in the cities in Sweden are exhibiting more interest and can be considered prospective purchasers of modern equipment which they do not have at present.

The garage and servicing equipment most needed in Sweden includes auto lifts, brake-testing machines, pressure car washers, cylinder-boring machines, electrically driven tools of various kinds, and perhaps wheel-alignment equipment.

Approximately 85 to 90 per cent of the equipment now in use in garages in Sweden is of American origin. The balance is about equally divided between English, French, German, and domestic equipment, with the latter possibly in the lead. The mechanical-engineering industry has reached a high stage of development in Sweden, and it is quite customary for one or more companies to take up the manufacture of a new line when it becomes evident that the demand will continue and increase. As examples, car washers and car-lifting equipment can be given.

There was no domestic competition in this equipment a few years ago, but it is certain that some of the business that otherwise would be obtained by American manufacturers will go to the domestic pro-

ducers in the future. In general, Swedish garage servicing equipment that is designed to accomplish the same purpose as that which has been placed on the American market during recent years, is not as finished as some of the better American articles, but the prices quoted by domestic manufacturers are so much lower that many purchasers feel it is inadvisable to purchase the more expensive American equipment.

The following garage equipment is also manufactured in Sweden: Air compressors, battery chargers, cranes, tools, gasoline pumps, mechanical jacks (hydraulic automobile jacks are not manufactured in Sweden), oil-dispensing pumps, polishing machines, portable drills, towing and salvaging equipment and wrenches.

At least 25 per cent of the air compressors sold in Sweden are of domestic origin. American auto lifts are well liked in Sweden, several makes being on sale, but they are considered very high priced; as a result, a portion of the demand is now supplied by domestic producers. Domestic firms supply about 25 per cent of the battery chargers, and most of the remainder is furnished by American manufacturers. Some German products are also on the market. Local firms get about one-fourth of the business in car washers, the balance being of American origin. Domestic competition in this equipment can be expected to increase.

About 10 to 15 per cent of the cranes, 25 per cent of the garage tools, and 60 per cent of the mechanical jacks sold in Sweden are of domestic origin. Practically all of the remainder is American. Large cranes are purchased almost entirely from the United States.

There is an active demand for hydraulic automobile jacks, and only American makes are on sale. There are several manufacturers of mechanical jacks in Sweden. Two domestic makes of gasoline pumps are on the market and account for about 30 per cent of the total sales, with most of the remainder of American make.

Oil and grease guns which are made in Germany are sold in Sweden but are not very well liked. The leading local producer gets about 20 per cent of the business. An Austrian product is sold but only to a limited extent. The market for this equipment is dominated by American producers.

A Swedish firm manufactures oil-dispensing pumps and now supplies about 25 per cent of the demand. The balance is almost entirely supplied by American producers. A domestic polishing machine accounts for about 10 per cent of the market, with the remainder going to American makes.

Approximately 50 per cent of the portable drills are of American origin and the balance is almost equally divided between English, German, and Swedish makes.

Tire-repairing machines, including tire changers and vulcanizers, are made in Sweden, but these producers supply only about 15 per cent of the total sold. Occasionally German manufacturers obtain orders for this equipment, but the bulk of the demand is supplied by American manufacturers.

Repairing and salvaging equipment in use is predominately American; the Swedish producers get about 10 per cent of the business, and an English product also is on sale. German competition is slightly felt in welding outfits, but the bulk of the business is obtained by American producers.

American manufacturers of brake-testing machines, cylinder-boring machines, paint-spraying equipment, reamers, valve grinders, and wheel-alignment equipment supply practically the entire demand for these items, but several makes are on the market and competition is extremely keen. Most of the wrenches sold in Sweden are of domestic origin.

The use of mechanical equipment in all except the larger garages in Sweden is restricted by insufficient work and lack of capital. The fact that skilled and unskilled workers, especially the latter, work for rather low wages as compared with those paid in the United States, also is a factor. Electric current is available in practically all parts of Sweden at a cost that permits the economical use of electrically operated service appliances. It is the initial outlay that gives rise to most of the sales resistance encountered by dealers in mechanical garage equipment in Sweden.

Hand tools are used to the greatest extent for changing tires. Mechanical tools seldom are used for this purpose except in the largest and best-equipped garages. There are a few shops in the larger cities that specialize in tire repairing and vulcanizing and do practically no other work, but this service also is furnished by many of the garages.

All of the larger and some of the smaller motor-vehicle distributors and some of the subdealers operate service stations, but there are also many privately-owned garages, both large and small. In most cases the garages in the small towns are privately owned.

The logical distribution areas and centers for garage and service-station equipment in Sweden are the same as those for automotive replacement parts and accessories, which are discussed above.

Garage and service-station equipment is sold almost entirely by wholesalers in Sweden. Sales made by manufacturers' agents are extremely limited. In the absence of a direct American traveling representative the best method in Sweden is through a wholesaler. Representation in this manner has certain disadvantages, it is true, but there is, generally speaking, no other alternative in Sweden. There are many wholesalers of this equipment, and their traveling representatives call on all of the prospective purchasers. Present distribution methods are considered satisfactory.

The usual terms for selling garage and service-station equipment are the same as those for replacement parts and accessories. Of course, there are exceptions owing to conditions peculiar to a certain case or cases, such as trying to get a trial order for new equipment, attempting to establish a connection with an especially desirable firm, selling to a firm with which business has been done for a long time, meeting certain special terms offered by foreign competitors, etc.

There is a growing recognition of the need of better and quicker service, both by the motoring public and by the passenger-car and truck distributors, and it can be expected that this will continue and lead to the more general use of better and more modern equipment by the garages, especially those in the larger cities. New American ideas and developments are closely watched by the alert distributors.



## SWITZERLAND

**A Good Demand Exists for Replacement Parts and Accessories and Fair Sale Can be Expected in Service Appliances—Domestic Production of Parts and Garage Equipment Good and American Participation Satisfactory**

Assistant Trade Commissioner Henry E. Stebbins, Bern

Motor-vehicle registration as of January 1, 1931: 63,725 passenger cars, 825 busses, 16,495 trucks, and 50,150 motor cycles.

## REPLACEMENT PARTS

The growth of the market for replacement parts in Switzerland has been in almost direct proportion to the increased number of motor vehicles in circulation. Of the present registrations, approximately 41 per cent of the passenger cars and 32 per cent of the trucks are of American origin. However, the percentage of American replacement parts in non-American cars now in circulation is higher than the percentage of American cars themselves. American parts are firmly entrenched on this market, are generally of better quality, and are widely advertised.

The life of a car is longer in Switzerland than in the United States and so the market for parts is correspondingly better per car. The longer a car owner makes his car last, the more replacement parts he is going to buy.

Various replacements are in demand proportionately to the same degree as in any other country where automobiles are in circulation. Certain parts are made locally, and so the demand for similar foreign lines is not so great. Chassis frames, wooden wheels, tire valves, fittings, hinges, running boards, pistons, piston rings, valves, magnetos, spark plugs, starters, radiators, pumps, oil tanks, oil gauges, axles, crank shafts, clutches, gear boxes, and tools are made locally in varying quantities, but they do not serve the entire domestic demand. The balance is mainly of American origin and items that are not manufactured locally. American parts include brake linings, springs, carburetors, batteries, fan belts, roller bearings, body hardware, rubber hose connections, etc.

Domestic manufacturers present competition chiefly in pistons and piston rings, there being three large factories engaged in this production. Starters, magnetos, switching apparatus, and coil-ignition systems are also produced locally.

French, German, and Italian brake linings are enjoying a greater share of the demand than American makes. In fact, at last year's automobile show in Geneva there were four different European brake linings exhibited and no American. European brake linings are considerably cheaper than American, but the quality is not considered as good.

American batteries are far the most popular. All of the well-known makes of American batteries are on this market and their superiority to other makes is recognized not only by the Swiss dealers but by the car owners as well. There is only one local firm engaged in the manufacture of batteries.

Although there are some special considerations to be borne in mind by American exporters of accessories in respect to local pref-

erences, there are no special requirements as far as replacement parts are concerned. Spare parts should, whenever possible, be imported in the same shipment as the automobile. If this practice is followed a lower rate of duty prevails, otherwise the parts are assessed separately and have to pay a correspondingly higher rate.

A number of local body manufacturers follow the European style in body building, which differs somewhat from the American taste. This, however, is confined more to the lines of a car rather than to any particular item of body hardware.

The usual method of distribution is for an American firm to appoint an exclusive general distributor for the whole country dealing usually in parts and accessories. This general distributor is expected to carry a stock from which he sells not only to his own sub-distributors in other parts of the country but also direct to large garages and service stations. The trend is away from automobile distributors carrying stocks of replacement parts, although the automobile subdistributors, usually garages which take orders only and do not carry a stock of cars, often handle a small stock of replacement parts for their own repair works. Central automobile distributors rarely carry a stock of parts.

It is well for the American manufacturer to have a definite arrangement with his Swiss distributor and not to ship on open account or consignment if it can be avoided. Ninety days' sight draft is the usual method of payment for both parts and accessories, although many European manufacturers and some American firms grant even longer credits up to 120 days. A reliable and active dealer will always be satisfied with 90 days and in some cases 60, but due to the very heavy competition, a 30-day arrangement is rarely satisfactory in this line of business. If it is accepted, an additional discount is usually expected.

The usual distribution points are Zurich, Basel, and Geneva. Following these, Berne, Lausanne, Bienne, Winterthur, and St. Gallen act as subdistributing centers for small areas, although establishments in these latter localities sometimes serve as wholesale distributors for garages in limited areas.

Inducements offered by European manufacturers to the Swiss dealers in an attempt to displace American lines are chiefly those of lower prices, quicker replacements, and prompt service. This handicap can be overcome if American firms would establish a central stock in some European free port from which replacements could be made quickly and easily. As it is, German and French salesmen travel though the country constantly getting orders, making suggestions for moving stock, and keeping in touch with their Swiss distributors. If the latter wish a prompt delivery of a rush order of parts from a German or French factory, they can telephone or telegraph it and so insure delivery within the shortest possible time. As Swiss dealers are particularly adverse to carrying large stocks this condition works against the American manufacturer.

Special inducements in the form of sharp price reductions are not offered by European competitors to any great extent, and since the Swiss dealer is interested more in the quality of the article rather than the price, he is not going to be influenced greatly by a price-cutting policy.

The most effective method of advertising spare parts and accessories is through two automobile weekly newspapers, the *Automobile Review* and *Auto Touring*. The former is the organ of the Swiss Automobile Club and the latter that of the Swiss Touring Club. Both clubs have similar functions and their publications are sent free to all members for the first year of their membership. As practically every automobile owner belongs to either one or the other, these two papers are excellent advertising mediums.

For truck owners and operators the *L'Auto Camion Suisse* is to be recommended, a journal published by the Swiss Association of Truck Owners and issued free twice a month to every member.

#### ACCESSORIES

Certain automobile accessories have a good demand in Switzerland, and the American share is considerable, although not as great as in replacement parts. The Swiss do not spend their money on non-essentials, although they are eager to have a number of new and interesting accessories already on a car when they buy it.

Some accessories are required by law in the different Cantons. Recently the Canton of Berne required all closed cars to be equipped with direction indicators, if the driver can not signal plainly without them. Further, rear-view mirrors and windshield wipers are required on all cars. These do not need to be automatic, but as almost all new cars are equipped with them the sales of new ones are not important.

All cars are also required to have a bulb horn in addition to the regular electric horn. This is to use in certain localities where electric horns are not permitted and also in case of emergency when the electric horn is out of order. Bulb horns are usually of French origin. It should be noted that two, three, or more tone bulb horns are not allowed, as the sound of them may be confused with that of the Alpine postal busses, all of which are equipped with a 4-toned horn which can be easily recognized in the mountain passes where the busses always have the right to keep to the inside no matter in what direction they are traveling.

The following accessories of American origin have been and continue to be in good demand: Automobile hardware, wrenches (in sets), mirrors, rubber mats, handles, windshield wipers, tire covers, seat covers, stop lights, window lifters, and hinges.

Direction indicators and horns are made locally in considerable quantities, the market for imported articles of this description being small. Clocks are also made by many of the large Swiss watch factories and there is little demand for the imported article. There is considerable replacement business in bumpers. Chains are manufactured locally, but have difficulty in competing with the well-known American brands on this market. Recently the rubber-tread chains, also of American manufacture, have found considerable favor. Search lights are prohibited in all Cantons of Switzerland, and ornamental radiator caps which protrude have been prohibited in Berne, owing to a recent severe accident. Other Cantons may follow this example.

Accessories are usually marketed by exclusive distributors purchasing for their own account, acting as wholesalers, and in turn selling to the retailers, small shops, and garage owners.

The retailer rarely will carry a stock of accessories, and the wholesaler usually tries to keep his stock down as much as possible. For this reason European competitors are in a more favorable position than American manufacturers. Experience has proven that this arrangement is more satisfactory than the appointment of a commission agent who sells direct to the wholesalers, or the establishment of a consignment stock. Through wholesale distributors buying on their own account, the American manufacturer is assured of an active interest in the promotion of sales. The temptation to let a line slide does not exist to the same degree as when the stock is on consignment or when the agent is working on a commission basis.

American manufacturers should not insist on their Swiss distributor taking a large stock, and they should, whenever possible, quote 90 days' terms, which is the general practice in this branch of the trade. Moreover, c. i. f. prices should be quoted when approaching a Swiss prospect, especially when the factory is located at some inland point. Offers which quote f. o. b. inland point rarely receive the serious attention of importers.

The present system of covering this market is adequate. Large wholesalers and importers often have their own branches in the trade centers of the country, have close contact with the retail shops and garages, and usually have a staff of salesmen to cover the whole country from time to time. Accessories are stocked by retail accessory dealers specializing in this branch of business and by garages. Automobile agencies, except where there are garages and service stations, do not carry accessories.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are very few service stations in the American sense of the word, and the market for equipment of this nature is almost exclusively confined to garages which have work shops attached. Certain large garages are operated by the automobile agents, and in one or two cases the equipment is designed primarily for service on the make of car operated by the automobile agent.

A few large American manufacturers are well introduced in this market. Distributors have been appointed, usually on an exclusive basis, and these sell direct to the garages.

The market for American equipment lies in the large new up-to-date general garages in the larger cities, which store cars and give repair service.

Only a few gasoline stations distribute anything beyond gas and oil. Free air is not generally available, and when an air compressor is found a fee is usually charged for its use, usually the equivalent of 2 to 4 cents a tire. The idea of "service" has not been adopted in this country; when a car operator pulls up for gasoline, no effort is made to give additional service, such as testing tires, filling the radiator, or cleaning the windshield. This slow progress in providing adequate service facilities is due in large part to the temperament of the people, and it is not expected that conditions will change much in this respect in the near future.

However, when repairs are needed and the car owner goes to a garage to have them done, he is usually assured of good mechanical service and a thorough job. Promptness is not the rule, but careful work is generally the result. This is especially true of garages which operate also as automobile distributors. Properly trained mechanics are employed in all the large garages, and competent service can be obtained even in the smaller ones.

American equipment is preferred because of its high quality, and although the price is often above that of local and other foreign manufacturers, American service equipment is found in most garages and includes air compressors, battery chargers, brake-testing machines, car washers, cranes, tools, jacks, grease guns, paint sprayers, tire-repair equipment, valve grinders, wrenches, and drills.

There is considerable local production of lifts, gasoline pumps, and oil-dispensing pumps, the market for the latter being restricted to outside competition by stringent Federal regulations.

French and German tools are on this market in considerable quantities; they are cheaper than similar American goods although the quality is not usually as high. German air compressors and paint sprayers are also cheaper than American makes.

Practically all garages are wired for electricity and current is cheap and commonly used. The chief argument against the use of mechanical equipment is, as indicated above, the temperament of the people—who are economical with money to a degree but not so economical in regard to time or physical effort. For this reason, tires are usually changed by hand and inflated by hand rather than through tire-changing apparatus and the use of an air compressor. Washing is done with a sponge and ordinary hose rather than by a mechanical car washer.

Most of the large garages are operated by automobile dealers, but there are many smaller ones that do a storage and repair service for all makes and types of cars. If a garage has proper facilities, it will repair any make of car, but some of the dealers with smaller space restrict repair work on cars for which they have a regional distributorship.

As in the case of accessories and parts, the logical distribution centers are the larger cities, Zurich, Basel, and Geneva. The best method of distribution is through large wholesalers buying on their own account; regular terms are 60 to 90 days.

It is suggested that American manufacturers of replacement parts, accessories, and equipment keep certain things in mind when trying to get established on the Swiss market.

In the first place, considerable caution should be exercised at the present time in picking out a distributor. There have been some failures recently, and many wholesalers, usually in a strong position, show signs of financial embarrassment. This does not mean that existing agency arrangements should be withdrawn, for it might be very difficult to find another distributor who would do as well. But care should be taken in making new arrangements, as the credit risk is greater now than it has been for some time.

It should be remembered by the American exporter that the chief obstacle to his entering this market is that the good agents with

sufficient capital and adequate distribution facilities are for the most part engaged in competitive lines. Anything that is new and useful will have no difficulty getting established, for the Swiss are eager for new improvements which are within a reasonable price range, but the market is highly competitive for the usual run of accessories, parts, and equipment.

Swiss dealers prefer quotations c. i. f. Basel, Antwerp, or Rotterdam, or if these are not available, at least f. o. b. American port of shipment. Complete details should be given to the Swiss prospect, including catalogues, in German or French, and if possible, terms, discounts, and shipping weights packed for export. The Swiss duty is assessed on the gross weight, including packing, which should, therefore, be as light as possible, consistent with strength. Terms such as cash with order or cash in New York will receive very little consideration. Swiss importers prefer to deal direct with the manufacturer and not through an export commission agent, although they can be persuaded in certain cases that they can get better terms and service from some one who knows the export business thoroughly. In any case, letters should always be written on the letterhead of the manufacturing company and not on that of the export agent.

Wherever possible a central stock should be carried somewhere in Europe from which repairs and replacements can be quickly and easily obtained.

Finally, the general outlook regarding the future trade in American-made equipment in Switzerland is promising as long as the quality of the goods remains high, prices competitive, and sufficient terms are granted. American products are highly regarded on this market and are generally preferred to those of other manufacturers, but conditions of prices and terms, while in many cases not the primary consideration, are of continually growing importance.

## TURKEY

**Large Possibilities for Sale of Replacement Parts, but a Restricted Market for Accessories and Garage and Service-Station Equipment—American Participation Decidedly Favorable**

Commercial Attaché Julian E. Gillespie, Istanbul

Motor-vehicle registrations as of January 1, 1931: 2,900 passenger cars, 2,700 busses, 3,200 trucks, and 600 motor cycles.

Turkey has an area of approximately 290,000 square miles and a population, according to the official census of October, 1927, of more than 13,650,000 people. The great majority of the population is composed of peasants, engaged primarily in agricultural and pastoral pursuits, whose purchasing power is extremely reduced and whose standard of living is unusually low. There is practically no industrial life in the country. In general, industry is limited to home handicraft work and a few small unimportant manufacturing establishments.

There are no concrete roads or streets in Turkey at the present time, and only a few kilometers of asphalt highways. The best roads in the country are of water-bound macadam or crushed-rock surfacing without binder, the great majority of which are worn or in a

bad state of disrepair and frequently impassable to motor vehicles during the winter months. The remainder of the roads are dirt tracks and trails, few of which have even been graveled. Communication and transport by motor and animal-drawn conveyances is, therefore, impossible during the late fall and winter months.

Low-priced trucks and busses which are constructed from light-truck chassis with locally built bodies comprise at least 65 per cent of the total automotive registrations.

#### REPLACEMENT PARTS

Imports of replacement parts have increased considerably during the past three or four years, while methods of distribution within the country have been greatly improved. The growth of the replacement-parts trade is due not only to the increase in the number of automotive vehicles in the country but to other fundamental factors that are inherent in most undeveloped countries. These are the almost total absence of good roads and highways; the habit of drivers and owners toward the overloading of cars and trucks; the unskilled driving methods; inadequate repair facilities and service stations; and the failure of owners to make repairs promptly or to have their vehicles overhauled periodically. Such conditions naturally necessitate more frequent repairs and contribute directly to a corresponding increase in the market for replacement parts.

The replacement parts most in demand are ball and roller bearings, springs, brake linings, piston rings and pins, gears, axle shafts and drive shafts, starting and lighting generators, fan belts, pistons, bushings, bolts, rims, and rim parts.

It is estimated that American manufacturers and exporters control about 90 per cent of the entire Turkish trade in automotive replacement parts. The balance, supplied by continental concerns, is made up more especially of replacement parts for European vehicles circulating in this country. With the exception of a few items, such as ball bearings, brake linings, iron bolts, etc., continental competition is of relatively small importance and does not constitute any serious handicap to the development of American business.

In connection with some European parts which are competing with American products, their success may be attributed largely to lower prices and the more liberal credit terms extended by the respective European suppliers to local importers. German automotive replacement parts are much cheaper in price than similar American products.

Istanbul is by far the most important distribution center in the country. Although the distribution of the hinterland of Smyrna is covered to a certain extent by two or three leading direct importers established in Smyrna, the majority of dealers in parts in Smyrna cover their requirements in Istanbul.

The distribution of replacement parts throughout the country is covered by Istanbul importing distributors through their provincial subagents or independent dealers. The larger proportion of the importation and distribution of replacement parts is conducted by firms which carry such parts, accessories, and other allied products, the balance being handled by local automobile dealers and agents. The

automobile dealers primarily handle original replacement parts, most of which are supplied by the automotive manufacturers whom they represent.

The leading wholesale dealers in replacement parts cover the provincial territory through traveling salesmen who call periodically upon subdealers or independent provincial customers, soliciting orders and investigating activities of their competitors. Local agents of cars and trucks also endeavor to have their provincial sub-agents carry original replacement parts or such other parts as they themselves stock. Many provincial subdealers and subagents or independent dealers come to Istanbul periodically to cover their requirements locally.

Finally, local distributing agents also circularize their subagents or customers in the interior periodically, furnishing the latter with descriptive literature and specification sheets, new or revised prices, etc.

The above-mentioned local parts dealers and automobile and truck agents conduct both a wholesale and retail business. In addition there are one or two large firms which conduct exclusively a wholesale distributing business, operating as foreign manufacturers' wholesale distributing agents.

Practically all leading local distributing dealers usually apply for exclusive agency arrangements in dealing with foreign suppliers of leading parts. In the great majority of cases the local firms succeed in obtaining exclusive rights, but a number of manufacturers or exporters maintaining general European distributing agents covering all or part of the Near East countries often are unable to grant exclusive importing or distributing rights to local concerns.

European general sales representatives of American manufacturers or exporters usually refuse to grant exclusive sales rights to a single local firm, except when the latter is large enough or offers to them sufficiently reasonable orders.

With reference to the method followed by a number of American manufacturers in covering the local market through their general European agents, it may be pointed out that in a case of items of secondary importance, for which no sizable individual orders are obtainable, local dealers readily avail themselves of the intermediation of the above type of agents, who usually offer a variety of replacement parts and are thus able to arrange for delivering combined shipments of small orders of various items. However, in the case of more important parts for which individual local customers usually are able to place orders for sizable shipments, they are often reluctant to deal through American manufacturers' European agents, inasmuch as the latter's commissions increase the cost of the respective goods. Also, any incidental divergency or claim which has to be submitted to the factory or exporters of the respective goods must be routed through the European agents, involving at times considerable delay. In the latter connection local dealers also often feel that they could get better satisfaction and service in dealing with American suppliers directly.

A number of American manufacturers covering this territory through some of their European agents believe that in following this method they can contact the local market more intelligently and also



obtain more reliable credit information on the standing of their local accounts. This is not always true. Although European agents calling once or twice a year upon local customers can frequently render appreciable service in developing business in new lines where technical knowledge, in addition to expert salesmanship, is essential, they usually are unable to follow closely local market developments, and more especially the financial position and business of their local accounts from their own offices in Vienna, Paris, etc. As a matter of fact, the great majority of American manufacturers of replacement parts operating on this market conduct their local business with local dealers direct.

In this connection it may further be pointed out that the majority of the better-class local dealers in replacement parts represent one of the best categories of business men in this country. All of them are perfectly well acquainted with American business methods. With the exception of a few rare instances, which were due partly to unforeseen circumstances or misunderstandings, there have been few cases where local wholesale dealers in replacement parts have failed to make prompt settlement or live up to their financial obligations.

In spite of the very keen competition among local dealers and distributors, they frequently cooperate with each other and cover from each other items of which they are temporarily either short, or which one can not order direct, whereas the other may maintain an exclusive distributing arrangement for such items.

American exporters and a number of manufacturers of automotive replacement parts offer, on the majority of lines, imported locally terms of from 60 to 90 days D/A, the acceptance usually being issued according to local commercial usage from the date of arrival of goods in Turkey.

On the other hand, more liberal credit terms than the above are granted on a number of specific items, such as springs, brake linings, etc. Springs are often supplied on terms of 50 per cent against 90, and 50 per cent against 180 days D/A terms. Continental suppliers as a rule grant more liberal credit facilities than American concerns, usually extending terms of 50 per cent against 90, and 50 per cent against 180 days D/A on practically every class of goods. Moreover, continental suppliers practically never charge interest for the credit period involved, whereas a number of American concerns often insist upon the payment of interest charges.

A few European concerns also supply to local agents goods on a consignment basis, claiming monthly or quarterly statements of sales upon receipt of which they extend to the local agent terms of about 60 days D/A.

It should be understood that the Turkish market is primarily a price rather than a quality one, the Istanbul trade in automotive replacement parts actually offering one of the few exceptions in this country to the above rule.

Practically no newspaper advertising is conducted by the local trade. It is not considered either necessary or important for the development of business. The most effective advertising conducted locally is by means of window displays and by novelties. These novelties are distributed gratis and are very popular among drivers.

The following comments on individual items indicate the character of the local market.

The trade in plain bearings is controlled by two European concerns which supply about 80 per cent of the imports. American manufacturers share in the remaining 20 per cent of the business. The same two firms also supply about 60 per cent of the demand for ball and roller bearings. German and English manufacturers control about 60 per cent of the demand for brake linings, with American companies supplying about 40 per cent. Bushings are imported exclusively from the United States, as are 85 per cent of the clutch facings. Driving and timing chains are imported exclusively from American suppliers, who also send 75 per cent of the local consumption of fan belts.

The spark-plug trade is divided evenly between American and European manufacturers, with German plugs supplying the chief competition. About 90 per cent of the replacement springs consumed on this market are used for trucks, and about 75 per cent of the imports come from the United States. America supplies about 95 per cent of the pistons and about 90 per cent of the piston pins and rings.

Body hardware is imported practically exclusively from Germany and is composed almost entirely of the lower-priced grades. European firms supply approximately 60 per cent of the body-upholstery material, being offered at lower prices, with Italian firms controlling the largest individual share of the business. America supplies about 95 per cent of the gears, starting and lighting generators, radiators, rims and rim parts, as well as 80 per cent of the cylinder-head gaskets, 60 to 65 per cent of the batteries, 70 per cent of the repair kits, and practically all clutch plates and connecting rods.

From a purely commercial viewpoint, the Turkish market for replacement parts, and more especially the trade in the city of Istanbul, offers particular interest to American firms, since local distributing dealers are well acquainted with American business methods and the majority of them are also expert and reliable business men with sufficient capital. Since the development of the present acute economic crisis, which has prevailed for some time, the local dealers in replacement parts have proceeded more carefully in their commitments than other local trades. Although their business has been affected by the existing adverse conditions, there has been no failure or suspension of payment by any important dealer in automotive replacement parts.

These circumstances should encourage American manufacturers to study local market conditions and business prospects more carefully with a view to extending their export business to the Turkish market.

#### ACCESSORIES

Imports of automotive accessories have decreased considerably in the past few years. This decrease is due to various factors, including the local feeling that a great number of accessories are articles of luxury. The cost of such accessories on this market has been considerably increased as a result of the import tariff which went into effect in October, 1929. The tightness of money and the adverse economic and business conditions have had a further adverse influence upon sales of accessories and have contributed considerably to the gradual abandonment of a number of lines.

A certain decrease in the local demand has been caused by the inclusion of certain accessories as a part of the original equipment. Furthermore, since about 65 per cent of all automotive vehicles operating in Turkey are light busses and trucks, they do not require as many accessories as passenger cars. Also, on account of the reduced individual purchasing power of the great majority of truck and bus drivers, sales of a large number of accessories throughout the interior have sustained a very considerable decrease.

In addition to these considerations, there is the additional fact that certain American accessories are either not adapted to or are too expensive for this market.

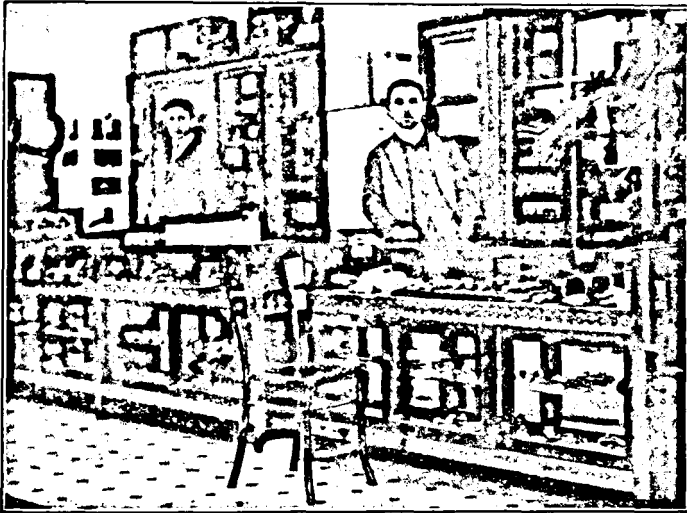


Figure 15.—Show-case display of accessories by an Istanbul automobile firm

At the present time, the most important single accessory items in demand are hand jacks, electric horns, and nonskid chains.

The American share in the local trade is estimated at about 65 per cent of the total imports. The remaining 35 per cent is distributed among European manufacturers, who either supply accessories exclusively for European vehicles, or furnish accessories of cheaper quality and price than American products.

Distributing methods are very much the same as those for replacement parts. Terms are likewise similar.

Stocks of accessories are carried by dealers handling replacement parts, as well as by automotive dealers and agents. Many of the leading dealers and agents also operate their own garage and service stations. Local independent garages do not carry accessories. There are practically no independent service stations in Turkey.

Annual imports of automobile hand jacks are estimated at from 1,500 to 2,000, with about 60 per cent coming from the United States.

Hand jacks from three-fourths ton to 3 tons and from 3 to 5 tons capacity are the two most popular items locally. The average annual imports of nonskid chains are estimated at from 3,000 to 4,000 pieces, and from 60 to 70 per cent is supplied by American companies, while the remaining 30 to 40 per cent is supplied by French and German firms.

Yearly imports of electric horns run from 1,000 to 1,500, from 80 to 90 per cent of which are supplied by American firms, with the larger share of the balance being furnished by a large German company.

Except for a few of the more or less essential items, the local business in automotive accessories is limited, with little or no prospect for a substantial increase in the near future. The majority of local dealers are, therefore, reluctant to invest in accessories beyond the limits of strict necessity.

While American firms may be able to develop a limited amount of business in a small number of strictly utility items, the Turkish market is neither attractive nor encouraging at this time.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Automobile-servicing facilities are extremely inadequate in Turkey. With the exception of a few more or less modernly equipped garages and workshops in Istanbul, and one or two in Smyrna and in Ankara, which are owned and operated by the principal car and truck distributors, all other garages have little or no servicing equipment or facilities. The majority of garages and automobile repair shops are poorly equipped, and frequently lack even the most necessary tools.

The items most needed and in regular demand on this market include garage tools, wrenches, welding outfits, reamers, small air compressors, small cylinder-boring machines, portable electric tools, paint-spraying equipment, grease guns, and mechanical jacks.

Practically all special equipment used in Turkey specifically pertaining to automobile and truck servicing, such as cylinder-boring machinery, is of American manufacture, while such equipment as lathes, etc., is controlled practically entirely by European, particularly German concerns.

The six or seven leading garages in Istanbul which are equipped for and maintain adequate repair and servicing facilities are owned and operated by local firms which are the distributors and agents of American automotive manufacturers. All the servicing and repair equipment in these garages is exclusively of American manufacture.

The majority of wrenches, welding outfits, reamers, jacks, cranes, oil and grease guns, etc., used in Turkey are primarily of European, and especially of German, origin, whereas such equipment as tire-repairing machines, cylinder-boring machines, paint-spraying equipment, portable electric tools, etc., are ordered preferably from the United States.

The principal factor contributing to the relatively successful sale and efficient competition of European, especially German, equipment is the lower prices, coupled with the liberal payment and credit terms extended by German manufacturers. Although a number of European, particularly German, items are of much lower quality than similar American equipment, the quality offered by European firms is considered satisfactory for conditions in this country.

Nevertheless, considering the very limited local trade in garage and service-station equipment in general, competitive activities are relatively unimportant for the present.

In the city of Istanbul trained mechanics are employed in a number of garages and service stations. The great majority of Turkish automobile mechanics and repair men are poorly trained and in general are not competent to make major repairs satisfactorily. Good mechanics are difficult to obtain, since they prefer to work as taxi or truck drivers rather than in garages or service stations.

The principal reasons for the restricted use of mechanical equipment in Turkey are primarily of an economic character. In the first place, the great majority of garage owners in Turkey operate with a small capital and therefore can not invest in adequate equipment. Also, the number of cars and trucks of any make circulating in the various towns and cities is not sufficiently large to justify the opening of service stations with special equipment. The owners of some of the largest and best service stations in Istanbul have pointed out that automobile and truck servicing in Turkey does not yield sufficiently satisfactory returns to justify an investment in complete equipment. Labor is very cheap, and, in addition, many car and truck owners do not fully appreciate either the necessity or the advantage of thoroughly servicing their vehicles at regular intervals.

There is a lack of central electric-power stations in many of the more important districts throughout the country. Electrification of the larger towns and cities is progressing slowly. Current is available at the present time in some 20 to 30 cities and towns, but as a general rule the cost of current and installation is expensive.

The majority of the leading automobile dealers in Istanbul, Smyrna, Ankara, and several other large towns operate their own garages, a number of which are well equipped for general repair and servicing work. A number of the smaller automobile dealers in Istanbul do not operate their own garage or service station. They maintain contract arrangements with independent garages for servicing their cars and trucks.

There are two modernly equipped tire-repair stations in Istanbul, which are operated by the local distributors of two well-known American tire manufacturers. In addition, there are also some 8 or 10 small tire-repair shops, with more or less incomplete equipment.

Although the use of hand tools predominates, the sale of hand tools for tire changing is still very limited, owing to the fact that the majority of drivers, especially those in the interior, change their tires in a very primitive way and with any ordinary emergency tools which they find handy.

In view of the reduced volume of business and the small demand which exists in Turkey for a number of important items of garage equipment, prospects for the sale of many others being practically nonexistent at the present time, special trips of American representatives to this market for the development of sales do not appear to be justified. Unless such representatives are prepared to visit this market simply to prepare the ground for future business and possibly to solicit small courtesy orders that may be obtainable, it would be wiser for them to wait until a more favorable opportunity affords itself.

Garage and service equipment is imported and distributed by distributors of tires and replacement parts and accessories, or by dealers in parts and accessories.

The more expensive types of equipment, for which there is only a limited demand, are imported by automotive dealers and distributors of tires and replacement parts. Smaller and cheaper items, for which there exists a more or less regular demand, are handled by dealers in replacement parts. A number of the cheaper items, such as reamers, welding outfits, wrenches, etc., are also handled by hardware, tool, and machinery dealers.

Importing dealers and distributors of the more expensive garage equipment have pointed out that they are invariably obliged to finance equipment which they sell to local garage owners, and to extend credit terms of from 6 to 15 months, to defray import duties, taxes, etc. Hence they must look to the supplying manufacturers or exporters for liberal payment terms and credit facilities. It is stated that there is practically no garage owner who can afford to purchase expensive equipment on less than six months' credit from the date of taking delivery.

Six months' credit may be safely extended to a few of the larger automobile and tire distributing agents in Istanbul, as such concerns generally enjoy a good reputation for financial capacity and standing. Small equipment is usually paid for by importing concerns on a 90-day D/A basis, acceptance being given upon arrival of goods in Turkey. These are the standard payment terms usually granted in this market.

The recognition of the need for better and more modern service and garage equipment, while growing slowly, is seriously checked by the lack of capital of garage owners and the low purchasing power of the majority of drivers. The absence of electric current in a great number of districts in the interior is another factor which hinders the development of the Turkish market.

Regardless of present conditions, it is reasonable to believe that the demand for garage and service-station equipment will increase in proportion to the development and growth of motor transport, and as the electrification of Turkey progresses. As there appears to be a decided preference for equipment of American manufacture, it is believed that American producers will obtain the largest share of the new business. There should be a gradual improvement in the demand for such equipment in the course of the next few years.

UNITED KINGDOM<sup>1</sup>

**Demand for Replacement Parts Good, Accessories Declining, Service Appliances Promising—American Participation Limited in the Parts and Accessories Trade, but Predominates in the Garage-Equipment Line—Domestic Production Large**

George Lewis Jones, clerk to commercial attaché, London

Motor-vehicle registrations as of January 1, 1931, including England, Northern Ireland, Scotland, and Wales: 1,126,691 passenger cars, 53,462 busses, 343,429 trucks, 732,667 motor cycles.

The following discussion covers all of the United Kingdom, including England, Scotland, Wales, Northern Ireland, and the Channel Islands. This territory should be considered as only one market and one of the most concentrated markets that can be found anywhere in Europe, rather than five separate and distinct marketing areas.

## REPLACEMENT PARTS

In a country so well developed along engineering lines as Great Britain, replacement parts have kept pace with the number of cars upon the roads. Manufacturers are able to supply parts for their cars on demand, and on one make it is said that the 1912 model is promptly serviced. In the minds of the British makers generally, however, the production of replacement parts has only been a casual necessity and not a studied outlet. With the increase in cars, the volume of sales of replacement parts has naturally grown.

Where a change of practice occurs, such as in the substitution of aluminum pistons for cast iron, a broader field is opened. In the past, so far as British cars are concerned, the makers themselves have secured all the business, production of individual models not being great enough to encourage outside manufacturers to make "imitation" parts. The manufacturer's parts become increasingly difficult to supersede as his factory methods improve, and considerable advances have been made in Great Britain of late. A car owner's use of "imitation" parts frees the manufacturer at once from all his guaranties. The dealer from whom the average family car was purchased originally is associated with it throughout its life. He is unlikely, therefore, to use anything but maker's parts where he is the official representative. Such casual components as gaskets and fan belts which are generally purchased by the makers themselves may, of course, be bought directly from their manufacturers, but this is an exception to the rule. The growth of the replacement-parts business, then, has been the natural one caused by the gradual increase of motor-car sales. The "imitation" part has practically no place in the market.

The following items are in good demand: Plain bearings, with roller bearings to a lesser extent; bolts, brake linings, bushings, fan belts, spark plugs, valves, pistons, piston rings, and pins. The busi-

<sup>1</sup> This section was prepared previous to the imposition of new duties in the United Kingdom late in 1931.

ness in replacement parts "made in America" has declined chiefly for two reasons. In the first place, the position held by American cars in new sales has been steadily declining during the past five years, owing to the horsepower tax basis.

At the same time considerable improvements have been made in the construction of small British cars with high efficiency engines, and the establishment of branch factories for popular American types of cars and their parts in England has considerably lessened direct imports from America. In the second place, the duties of 33½ per cent have taken away the price margin which mass production formerly gave to American parts. American participation is almost limited to the sale of parts for American cars now in service, and to certain special parts, such as aluminum pistons, where the make of car is not considered.

Competition is encountered from manufacturers in France, Italy, and Germany, which can render quicker service because of their proximity.

Parts for British cars are distributed by the various dealers who hold the franchise for a certain make, and foreign parts are largely obtainable from the distributors. Where the car is a popular one, the subagents operate in much the same manner as British agents in stocking parts. In the case of lesser demand, a garage may nominally be an "agent" and will telegraph to the distributor in London for parts for immediate delivery.

Pistons, piston pins, piston rings, brake linings, and bearings, which have a general field, are sold through salesmen visiting the various garages. Sizes in most general demand are supplied regularly, but odd sizes, when required, must be carried by the exclusive agent, who is expected to make immediate delivery on demand. Both European, domestic, and American lines are generally subject to the same discounts, ranging from 15 to 20 per cent to the dealer, and averaging 25 per cent to the distributor. London is the chief center of distribution.

Effective advertising mediums, so far as parts and accessories are concerned, seem to be rather limited, owing to the small circulations of the existing periodicals. The most prominent motor magazines, with their estimated circulations, are given as follows: The Autocar, 71,000; The Motor, 67,000; The Auto, 37,000; Commercial Motor, 24,000; Motor Commerce, 15,000; Motor Trader, 11,000; Motor Transport, 10,000; Auto Engineer, 10,000; Motor Boat, 10,000.

Newspapers have recently been making a drive for automobile advertising by means of motor pages on certain days and have had a definite success in regard to motor cars. Several are promoting composite half pages of small classified accessory ads, which are said to be useful, particularly from the mail-order point of view.

It is conceivable that a manufacturer wishing to reach all of Great Britain would utilize for his accessories or special parts a series of small ads in the leading daily papers of London, Birmingham, Manchester, Yorkshire, and Glasgow. Accessory advertising is not well developed in this country, however, and returns should be very carefully studied.



### ACCESSORIES

The demand for accessories in Great Britain has been on the decline for the past four years, due largely to the complete equipment included by car producers.

Two general tendencies are noticeable; the first is that of the accessory manufacturers who have relaxed their attention on the retail trade and are working up their production in order to be able to sell their products as original equipment to the car manufacturers. The second tendency is that of the accessory dealers switching over from retailing certain accessory items and selling garage equipment of the more technical type of goods. At the same time, the larger department stores have been selling certain accessory items and novelties, especially during the Christmas season.

The accessories most in demand are bumpers (and it might be stated here that a fault of the American bumper has been the fact that locally made adaptor irons have had to be used to attach them); heat indicators of the radiator type (and there is a tendency to make these a standard feature); horns (especially those with distinctive notes, in the high-priced class, a German make being particularly popular); radiator shutters and shields (with a tendency toward including these as standard equipment); shock absorbers (all supplied from English sources); speedometers (for replacement purposes); tire gauges and novelties.

Domestic competition is very heavy, while continental participation is moderate. The American share of the accessory trade is practically nonexistent; in special accessories America gets a fair share of the business, but here again price enters in, because whenever an accessory shows signs of success it is immediately copied both in England and on the Continent to sell at a price considerably less than that of the American article.

The most common method of distribution is through an exclusive distributor purchasing on his own account and selling directly to the local wholesalers, or to the large garages and motor dealers where an outstanding wholesaler does not exist.

Small stocks are carried by the distributor to cover rush orders, but an effort is made to keep stocks at a minimum. The usual discounts extended by the factory to the dealer are 25 per cent.

### GARAGE AND SERVICE-STATION EQUIPMENT

There is a demand at present for air compressors, auto lifts, brake-testing machines, car washers, cylinder-boring machines, garage tools, high-pressure chassis-lubricating and grease-dispensing systems, polishing machines, portable drills, reamers, valve grinders, wrenches, and wheel-alignment equipment. European competition is not great, due to the fact that the United States is looked upon as the outstanding developer of the best garage practice. There is a British imitation for practically every American device, but its finish and design is generally inferior to such a degree that the

lower price for which the product is offered does not afford serious competition. It is probable, however, that these products will improve and be important from a competitive standpoint to American garage equipment.

Most garages are operated by automobile dealers, and properly trained mechanics are employed. Where servicing equipment is used it is practically all of American origin or an American line which has been copied by local manufacturers.

The best selling method is through the large wholesaler or jobber. Tires are generally changed by hand; only a small amount of vulcanizing is done in the face of present low prices for new tires.

In the cities there is nothing which restricts the use of mechanical equipment. A number of garages in the country districts are without sufficient power to run servicing machinery. However, more power is becoming available each year.

For the purposes of distribution, a good wholesaler located in London, with a number of salesmen on the road, will reach all of the island except where a very large and steady sale exists for a standard product; there is no advantage in dividing up the territory as the salesmen will be familiar with their own districts. Bulky consignments may be shipped to the consignees through their nearest port, although the order is placed through London. The London agent may or may not cover Northern Ireland and the Irish Free State. He often works with an Irish firm as a kind of correspondent or cooperates with a separate agent appointed there. Most agents will not undertake a line without the rights for the British Isles.

There is certainly a promising field for American equipment in this country. However, English manufacturers are competing more and more in the trade, and if a new American design promises to be successful it is immediately copied in the local market by local producers.

## YUGOSLAVIA

### Replacement Parts Demand Fair, Accessories Low, and Service Appliances Promising—European Competition Increasing

Commercial Attaché Emil Kekich, Belgrade

Motor-vehicle registrations as of January 1, 1931: 9,050 passenger cars, 591 busses, 2,810 trucks, 3,219 motor cycles.

### REPLACEMENT PARTS

The development for replacement parts has followed the increased registrations of motor vehicles. Of the total registrations of passenger cars, trucks, and busses on January 1, 1931, 57 per cent were shown as of American make. Current sales, however, of American cars and trucks represented at least 75 per cent of the total, and the American participation in the parts trade is estimated at at least 50 per cent.

Replacement parts most in demand include pistons, piston rings, bearings, bolts, brake linings, chains, fan belts, spark plugs, valves,

gears, pinions, and drive shafts. Demand for these and most other items will undoubtedly increase as the market for motor vehicles expands. Body building is gradually growing and this eventually will call for increases in imports of body hardware and upholstery material.

Increasing European competition, especially from Germany, is noted in many lines such as brake linings, body-upholstery material, and bearings. The basic reasons for this are price and prompt delivery. The European competitors, therefore, are not only in line to get the business for European vehicles operating in Yugoslavia, but also some of the business for American vehicles, whereas all of the business that American replacement parts concerns receive, with the exception of some spark-plug business, is for passenger cars, trucks, and busses from the United States. Average dealers in Yugoslavia can buy small quantities of German parts at minimum wholesale prices and have them shipped parcel post, which is an enormous advantage.

Leading distribution centers for all materials in the motor vehicle trade, including replacement parts, are Belgrade, Zagreb, Osijek, Skoplje, and Bitolj. The two latter-named cities are both in south Yugoslavia, but because of lack of communications in that district the two centers are usually necessary. The cities are given in the order of their importance.

Distribution is effected locally through the automobile dealers and garages, but in the last two or three years some concerns have started special parts and accessories houses, as in the United States. Although there are no particular distribution changes evident at present, automobile dealers and garages will eventually organize and maintain special parts and accessories departments. A peculiar feature of the market is that the American manufacturer in many cases sells direct to dealers in Yugoslavia and in Vienna, Austria. Some of these dealers are parts and accessories jobbers, and some are car dealers, who travel the country. European manufacturers resort to this same method, but many of them also send representatives direct from the factories to canvass the trade.

European manufacturers generally ship on open credit and have been giving as high as 180 days, while American manufacturers are apparently beginning to grant 60 to 90 day terms.

The most effective advertising media in the trade are the newspapers. There are also a few technical automotive trade journals in which periodic advertising should be carried.

Most cars are chauffeur driven, and for this reason chauffeurs have a good deal to say in connection with owner preferences. This situation may be modified in time as the sale of motor vehicles increases; in fact, there is now apparent the beginning of a trend toward owners driving their own automobiles.

#### ACCESSORIES

At present (1931) the demand for accessories is rather low because of the depression, but with improved conditions and with the

greater buying of cars and trucks it is believed that the demand will increase swiftly.

There are no body hoists in the entire country, hand labor being used; these conditions are subject to modification as conditions improve. Nonskid chains are brought in chiefly from European countries, and there is some domestic manufacture; the chief consideration, however, is price. Covers for hoods, radiators, and tires, as well as seat covers, are supplied chiefly by domestic producers. There is a fair demand for bulb-horns, but these are supplied chiefly by European manufacturers on a price basis. The same is true of lamp lenses, license plates, tire pumps, taximeters, tire gauges, and windshield wipers, prices often being at least one-third under those quoted by the American suppliers. American business is shared with European in such items as lights, electric horns, jacks, speedometers, and shock absorbers. Items such as bumpers, glare eliminators, lubricating systems, luggage carriers and trunk racks, mirrors, radiator shutters and shields, and windshield cleaners do not offer a great deal of business as yet, because of the fact that in most cases they come as original equipment, and the public does not buy beyond what is on the car.

The American share of the accessories business in Yugoslavia is probably not over 30 to 40 per cent of the requirements. European manufacturers are tending to increase in importance because of price and the ability to effect prompt delivery.

Accessories are marketed in Yugoslavia through a few exclusive distributors purchasing for their own account and by dealers who buy direct from the manufacturers. Stocks are not as yet carried to any large extent by individual dealers or distributors, and often competitive lines are handled by the same firm. The best method of coverage is through a good distributing house or some automobile dealer having connections throughout the country. Such houses are as yet relatively few, and while present channels of distribution can hardly be considered inadequate because of the comparatively small registrations of motor vehicles, the next several years must inevitably witness a greater organization in the trade and more intensive marketing methods.

Usual terms of the accessories trade granted by American houses are cash against arrival of goods or limited credits, and by European sellers, open accounts or 90 days.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There is a great need for elementary education in the advantages of modern servicing, although there are indications that the most progressive automobile dealers will remedy this situation as soon as roads are improved and the motor vehicle becomes more in demand—which is generally conceded to be more or less certain in the next few years. There are two fairly good garages in Zagreb, but not in Belgrade, and less than half a dozen establishments in the entire country which might be called garages or service stations. Trained mechanics are decidedly few.

Practically every item of garage and service equipment is needed in this country, and as soon as there is adequate education and purchasing power these items will be purchased in larger quantities. Equipment from America or from other countries is very little in use at present, but there is a distinct field for introduction of such equipment when it is considered that registration of cars in the country will probably increase rapidly in a relatively short while.

There are no auto lifts or brake-testing machines, car washers, oil and grease guns, oil-dispensing pumps, polishing machines, towing and salvaging equipment, or lubricating and grease-dispensing systems. There is only one complete air compressor, only a few cranes, a limited number of valve grinders, and two or three wheel-alignment sets. The few portable drills in use are American, as are the limited number of paint-spraying sets. Only one proper battery-charging outfit is established, the present practice being to secure little sets which are plugged into the lighting circuit to charge one or a few batteries. Garage tools used are of inferior quality supplied by European sellers. European markets also supply a limited number of wrenches, reamers, and jacks. Gasoline pumps are operated by oil companies, and a few tire-repairing machines are in use. No equipment is made locally, nor is there any probability of domestic manufacture in the near future.

The principal reason restricting the use of mechanical equipment is the combination of lack of mechanical knowledge, cheap hand labor, and the absence of good roads. Low purchasing power is also a characteristic tending to make development difficult, 76 per cent of the population consisting of peasant farmers. Electric current on an economical basis is available in the larger centers, but not in the smaller. Projects are being prepared to electrify many sections of the country.

Change of tires throughout the country is done chiefly by hand, and there are very few up-to-date tire repair shops. Probably about 50 per cent of the garages maintained are operated by automobile dealers.

It is thought that the best method of introducing products into this market is through a manufacturer's agent, if possible, who would travel the country; or through some of the larger automobile dealers purchasing for their own account or on a commission basis, who are in a position to cover the country. As the market is not organized, firms desiring to introduce their goods must take particular care to endeavor to secure the best possible connections, and it would then be necessary to supply careful education and preparation for the demand which will undoubtedly come.

Present distribution methods are not satisfactory from the modern point of view, but the shift must be gradual. Terms in selling to the market must invariably take into account the relatively low purchasing power aggravated by the present depression and poor prices for agricultural products. Buyers will not pay until arrival of goods where the more expensive equipment is in question, and in most cases credits of 60 to 90 days are necessary.

The recognition of the need for better service and garage equipment is present in Yugoslavia, and it is only a question of time before improvements are made. Yugoslavia is in the midst of a readjustment period as well as one of construction, in which communications are a vital factor. The country is rich in natural resources and the people are willing to modernize their manner of living. Rapid strides have been made in the past three years, and it is anticipated that the next three will see even greater progress.

American motor vehicles enjoy good favor in this market, and articles of utility specially catering to the maintenance of these vehicles will find a market sooner or later. The real problem is representation, whether for the moment or in the future. In some lines it will be difficult to secure proper representation at present, and in most lines each problem must be solved individually, since there is not sufficient basis, not enough specific facts on which to generalize to advantage as to how to attack various questions for different lines.

American products have prestige and they are preferred, if price and other considerations can be combatted. Probably this factor of price will keep out many American lines for a time, but as the motor vehicle experience of the country grows, it is certain that American parts and servicing equipment will be more in demand.

## NORTH AMERICA

### BRITISH HONDURAS<sup>1</sup>

**Demand for Replacement Parts Negligible, Accessories Decreasing, and Service Appliances Nil—American Products Entirely Supplied**

Consul G. R. Taggart, Belize

Motor-vehicle registrations as of January 1, 1931: 174 passenger cars, 62 trucks.

#### REPLACEMENT PARTS

Spark plugs, brake linings, exhaust pipes and mufflers, fan belts, and certain bearings are stocked and sold in about the order given. Clutch facings are also occasionally stocked. Other items of replacement parts are only rarely required and are then ordered from the United States, generally from the representative in New Orleans for the particular car or truck. The small stocks of replacement parts are principally in Belize, with a few items in Corozal and El Cayo, about 90 miles distant.

American participation in the replacement parts in this colony is estimated at 98 per cent. A few Canadian-made parts are imported for the American cars assembled in Canada. Real foreign competition is, however, prevented by the distance of this colony from the United Kingdom and by lack of regular ocean transport facilities.

There are no British Honduras dealers specializing in replacement parts. The Belize agents for the two American motor vehicles most reasonably priced carry a small range of replacement parts usually needed for these cars. Otherwise parts are specially ordered from the United States.

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<sup>1</sup> This report was prepared by the late G. R. Taggart, American consul at Belize, prior to the hurricane which destroyed the city and caused his death in September, 1931.

SUMMARY OF THE MARKET FOR AMERICAN REPLACEMENT PARTS, ACCESSORIES, AND SERVICE APPLIANCES IN NORTH AMERICA

Country	United States exports in 1930			Present demand			United States participation		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Barbados.....	\$27,420	\$1,061	\$3,518	Growing.....	Limited.....	Limited.....	Leads.....	Leads.....	Leads.....
British Honduras.....	7,063	387	1,454	Small.....	Down.....	Nil.....	98 per cent.....	98 per cent.....	100 per cent.....
Other British West Indies:									
Bahamas.....	53,764	2,499	12,751	(Small.....	Small.....	Small.....	95 per cent.....	95 per cent.....	Indefinite.....
St. Lucia.....				Restricted.....	do.....	None.....	Leads.....	Leads.....	100 per cent.....
Antigua.....				Small.....	Limited.....	Limited.....	Fair.....	do.....	Leads.....
Nevis.....				Nil.....	Nil.....	Nil.....			
Canada.....	7,736,318	2,331,376	808,531	Active.....	Down.....	Good.....			
Quebec.....							80-85 per cent.....	90 per cent.....	90 per cent.....
British Columbia.....							75 per cent.....	25 per cent.....	25 per cent.....
Ontario.....							Leads.....	Leads.....	Leads.....
Prairie Provinces.....							Heavy.....	95 per cent.....	80 per cent.....
Costa Rica.....	40,855	3,466	4,140	Down.....	Down.....	Inactive.....	do.....	Heavy.....	Heavy.....
Cuba.....	639,320	40,306	103,256	Fair.....	do.....	Limited.....	95 per cent.....	100 per cent.....	Do.....
Dominican Republic.....	55,495	5,291	9,715	Good.....	Restricted.....	Down.....	98 per cent.....	98 per cent.....	98 per cent.....
Guadeloupe.....	90,767	1,266	3,245	Limited.....	Limited.....	Limited.....	Small.....	Small.....	Small.....
Guatemala.....	91,089	13,281	12,806	Good.....	Down.....	Growing.....	100 per cent.....	96 per cent.....	Leads.....
Haiti.....	55,725	6,634	9,441	do.....	Restricted.....	Restricted.....	Heavy.....	Heavy.....	Heavy.....
Honduras.....	36,769	9,696	4,916	Fair.....	Small.....	Limited.....	100 per cent.....	100 per cent.....	100 per cent.....
Jamaica.....	150,659	10,128	33,857	Growing.....	Good.....	Growing.....	95 per cent.....	85 per cent.....	Do.....
Martinique.....	(1)	(1)	(1)	Fair.....	Limited.....	Limited.....	25 per cent.....	50 per cent.....	25 per cent.....
Mexico.....	1,159,031	134,581	205,093	Growing.....	Down.....	Down.....	100 per cent.....	98 per cent.....	100 per cent.....
Netherland West Indies.....	89,224	8,577	15,898	Slow.....	Small.....	Restricted.....	do.....	Leads.....	Leads.....
Newfoundland.....	40,069	9,148	11,355	Growing.....	do.....	do.....	Leads.....	do.....	75 per cent.....
Panama.....	133,250	15,719	46,691	do.....	Down.....	Limited.....	95 per cent.....	99 per cent.....	100 per cent.....
Porto Rico.....	258,008	28,514	97,128	Fair.....	do.....	Nil.....	100 per cent.....	100 per cent.....	Do.....
Salvador.....	42,717	11,368	5,473	Limited.....	Limited.....	Limited.....	Leads.....	Leads.....	Leads.....
Trinidad and Tobago.....	91,170	2,517	19,095	Growing.....	Growing.....	Growing.....	90 per cent.....	95 per cent.....	Do.....
Virgin Islands.....	6,587	589	1,265	Down.....	Limited.....	Nil.....	100 per cent.....	100 per cent.....	100 per cent.....



Country	Domestic production			European competition		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Barbados.....	None.....	None.....	None.....	Slight.....	Slight.....	Slight.....
British Honduras.....	Slight.....	do.....	do.....	None.....	None.....	None.....
Other British West Indies:						
Bahamas.....	None.....	do.....	do.....	Slight.....	Slight.....	Slight.....
St. Lucia.....	do.....	do.....	do.....	do.....	do.....	None.....
Antigua.....	do.....	do.....	do.....	do.....	do.....	Slight.....
Nevis.....	do.....	do.....	do.....	do.....	do.....	do.....
Canada.....	Heavy.....	Heavy.....	Heavy.....	Nil.....	Nil.....	Nil.....
Costa Rica.....	None.....	None.....	None.....	None.....	None.....	None.....
Cuba.....	Slight.....	Small.....	do.....	Limited.....	Slight.....	Do.....
Dominican Republic.....	None.....	None.....	do.....	Nil.....	Nil.....	Nil.....
Guadeloupe.....	do.....	do.....	do.....	Strong.....	Strong.....	Strong.....
Guatemala.....	do.....	do.....	do.....	Nil.....	Slight.....	Slight.....
Haiti.....	do.....	do.....	do.....	None.....	None.....	None.....
Honduras.....	do.....	do.....	do.....	Slight.....	Slight.....	Do.....
Jamaica.....	do.....	do.....	do.....	Growing.....	Growing.....	Do.....
Martinique.....	do.....	do.....	do.....	Heavy.....	Strong.....	Strong.....
Mexico.....	Slight.....	Slight.....	Slight.....	None.....	None.....	None.....
Netherland West Indies.....	None.....	None.....	None.....	do.....	Slight.....	Slight.....
Newfoundland.....	do.....	do.....	do.....	do.....	None.....	Do.....
Panama.....	do.....	Slight.....	do.....	Slight.....	Nil.....	None.....
Porto Rico.....	do.....	None.....	do.....	None.....	None.....	Do.....
Salvador.....	do.....	do.....	do.....	do.....	do.....	Do.....
Trinidad and Tobago.....	do.....	Slight.....	do.....	Slight.....	Growing.....	Slight.....
Virgin Islands.....	do.....	None.....	do.....	None.....	None.....	None.....

<sup>1</sup> Included with Guadeloupe.

NORTH AMERICA

There are no service garages for automobile repairs. Consequently replacements are made only when the part actually fails. Instead of awaiting a new part from the United States the present part is frequently patched by the driver.

A proper garage and service station would apparently not pay, owing to the limited number of cars in the entire colony. Sixty-nine per cent of the passenger cars and 53 per cent of the trucks are in Belize, the largest town and capital, having a population of 13,000. The other six towns of the colony are distant from Belize from 40 to 100 miles, and there are no connecting motor roads. Outside the towns, motor traffic is limited to a few stretches of dirt roads rarely exceeding 15 miles and usually passable only during the dry season.

The town roads are fairly good, but are narrow and cars rarely are driven more than 30 miles an hour. Wear and tear are, therefore, much lower than in the United States, resulting in fewer replacements. The majority of the laborers are unskilled, and their individual purchasing power is very low.

The replacement market in this colony is, therefore, practically negligible and will doubtless continue so until there is a marked road improvement. This can not take place until there is money for the purpose and the prospects for this are not now in sight.

The manufacturing procedure protective of parts in tropical seaports would be helpful in British Honduras, such as chromium plating and other antirust measures. The roads are principally composed of reef rock which, with the air, is full of salt. The road mud is very destructive to exhaust pipes, mufflers, and fenders. Replacements of fenders, running boards, and even hoods are sometimes made when rusted through, by galvanized iron articles, handmade by local tinsmiths. These local replacements are rough and they spoil the appearance of the cars, but they are durable.

#### ACCESSORIES

Most accessory items are regarded in this colony as luxuries, and even the negligible demand is decreasing because of the present depression.

The only accessory items which are stocked in Belize include bumpers, tire covers, hand jacks, light bulbs, mirrors, tire pumps, tire gauges, and a few novelties. Those not required here are non-skid chains, radiator hoods, glare eliminators, luggage carriers, radiator shutters and shields, taximeters, and car heaters. License plates are either hand painted or are aluminum letters mounted on wood.

There is very little foreign competition with American accessories. It is estimated that 98 per cent of the few accessories imported come from the United States. No increased demand is expected in this colony until there is a decided economic change for the better.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There is not one service-equipped garage in the colony, but recently two American gasoline curb pumps have been installed in Belize, one by the Mexican Oil Co., and the other by a taxi repair

place. The oil company also installed an automatic air pump for the free use of its customers, the pump being of American manufacture.

The British Honduras Government recently passed an ordinance based on American and British practice, controlling the installation of gasoline stores, pumps, and tanks within the town area. Belize is a wooden town and the local labor is careless with gasoline, several fires having been caused by handling gasoline alongside an open flame lamp or candle.

The water table is only a few inches below the surface of Belize, and pump tanks must be encased in concrete. Battery charging is done by the Government-owned electric light board.

One car agent in Belize occasionally undertakes spray painting of cars, but he says that the few orders do not pay for the outlay.

There are in the colony no properly trained mechanics. The average colored driver is, through necessity, somewhat handy in making minor repairs; tires, for instance, being changed by manual labor with an ordinary jack. A properly equipped garage would probably not be generally patronized because of its probable higher charges.

There is practically no manufacturing in British Honduras of any kind. Mechanical equipment is restricted by the small demand, by the lack of trained mechanics, by the high cost of electric power, and by the lack of capital in general.

There is followed here a standard policy of requiring cash with orders. No credit accounts are kept, although agents are expected to retail on credit to their customers. Interagent purchases are made only in emergency and then only by mutual agreement.

Belize is the distribution center for the whole Colony. For the small imports the present distribution methods are satisfactory, namely, buying equipment as needed through agents resident in the United States or direct from the American factory.

It will be seen that the market in British Honduras for all automotive equipment is restricted by the limited demand in a colony without roads and with little money.

## BRITISH WEST INDIES

Consul William W. Brunswick, Barbados; Consul Graham H. Kemper, Hamilton, Bermuda; Vice Consul George F. Kelly, Kingston, Jamaica; Vice Consul Alfredo L. Demorest, Trinidad; and Vice Consul F. Ridgway Linenweaver, Nassau, Bahamas

## ANTIGUA

Motor-vehicle registration as of January 1, 1931: 233 passenger cars, 3 busses, 34 trucks, and 28 motor cycles.

### REPLACEMENT PARTS

American participation in the present registration of motor vehicles is 79 per cent of the passenger cars and 100 per cent of the busses, trucks, and motor cycles.

There is not a large market for replacement parts in Antigua. The chief articles handled are bolts, brake linings, fan belts, spark plugs,

springs, piston rings and pins, with other parts handled to a small extent.

There is a movement in Antigua to press the sale of British cars on the ground that greater mileage can be obtained from gasoline consumed. Consequently, if many British cars are sold, the demand for British parts will increase in direct proportion.

The manufacturers of American and English cars are represented by dealers who are also operators of garages, and these dealers receive all parts direct from the manufacturers.

St. Johns is the capital of Antigua and the seat of the government for the Leeward Islands. It is the distributing center for all automotive products. Credit terms are generally one month's time, drafts payable, if American, in American currency, and 2 per cent discount for sight drafts. No advertising methods exist beyond newspaper announcements or individual sales propaganda.

#### ACCESSORIES

The practice of purchasing replacement parts from the manufacturer of the cars to be repaired, which is followed in Antigua, is also adhered to with the sale of accessories. The accessories generally handled are of a limited nature and consist of bumpers, bulb and electric horns, hand jacks, tire gauges, and miscellaneous items.

The Antigua agent or dealer for a given car carries a small line of accessories. Credit terms are generally one month's time or 2 per cent discount for sight draft.

The continued sale of automotive accessories will depend upon the prices at which they are offered.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Antigua is provided with fair automobile service facilities for cars represented by dealers. Two of the low-priced American cars are handled by two garages who have good mechanics capable of effecting all repairs. The other garages give satisfactory service.

Equipment mostly used includes air compressors, battery chargers, lubricating apparatus and general garage tools. American equipment is used in all garages, but owing to the small number of vehicles used, the present equipment seems to meet the requirements of the colony. Foreign competition exists chiefly in minor garage tools, drills, and wrenches. No equipment is manufactured locally. The use of mechanical apparatus is restricted owing to the cheapness of labor and the limited capital of dealers. Tires are changed entirely with hand tools. All repairing of tires is done in garages, which are operated by automobile dealers.

In the absence of American traveling representatives, the best method is that of solicitation by mail to local dealers. Owing to the small turnover, articles can be handled only through automobile dealers. Present methods of distribution are suitable to local conditions. There is no present demand for increased service or garage equipment. It is doubtful if any improvement will soon occur owing to the severe economic depression and the small capital of the dealers.

## BAHAMAS

Motor-vehicle registrations as of January 1, 1931: 906 passenger cars, 18 busses, 251 trucks, and 10 motor cycles.

With a total population of 60,000, 85 per cent of whom are colored, poor, and living in relatively primitive conditions, the potentialities of this market are those of an American town of 4,000 to 5,000 inhabitants. There are approximately 125 miles of motor roads on New Providence, on which Nassau is situated, and 100 miles on the out islands. Approximately 98 per cent of the motor vehicles are of American manufacture, the others being British. The proximity of these islands to the United States, quality and price of American products, better transportation facilities, and familiarity with American methods are all factors favorable to American trade.

The same types of parts, accessories, and garage and service-station equipment are found in the Bahamas as in the United States, as they are largely of American manufacture. Prices are American prices plus transportation and duty. Engine parts are admitted free of duty, while all other parts, accessories, and equipment are dutiable at 12½ per cent ad valorem under the first schedule of the Bahamas tariff act of 1919 as amended. Similar goods, the manufacture or produce of the British Empire, enjoy a reduction of 25 per cent under the imperial preference act and the Canada West Indies trade agreement act.

There are no manufacturers of replacement parts, accessories, or garage and service-station equipment in the Bahamas. Nassau, the only city of importance as a distributing center for the out islands, has five garages and two service stations of important size. All of these carry accessories; however, the dealers do not carry large stocks of parts or equipment, but order them as needed, usually from Miami, Fla. None of them is in a position to stock a line of products. Credit terms are usually cash with order, although small amounts are sometimes purchased on a 30 to 60 day basis.

The colony is feeling the effects of the world-wide economic depression. The tourist trade, which is an important economic factor, has shown a marked decrease during recent years, the winter season of 1930-31 having been especially poor. The surplus assets of the colony have been practically exhausted for public improvements, and the Government is now operating on an extremely conservative basis, resulting in widespread unemployment and a slowing down of business generally.

Aside from the liquor trade, sisal growing, sponging, and the production of tomatoes for the New York winter market are the principal industries of the colony. All of these were seriously affected by the severe hurricanes that have passed over the islands in recent years, destroying crops and causing much property damage.

The peculiar character of the colony as a winter resort, active only three months of the year, and the large percentage and extreme poverty of the colored population, make it unlikely that there will be any noticeable increase in the demand for automotive equipment in the near future.

### BARBADOS

Motor-vehicle registration as of January 1, 1931: 1,355 passenger cars, 135 busses, 195 trucks, and 116 motor cycles.

The growth of the Barbados market for replacement parts, accessories, and service-station equipment has been in more or less direct ratio to the steady increase in the number of automotive vehicles in use on the island. American participation accounts for 88 per cent, 100 per cent, 95 per cent, and 30 per cent, respectively, of the passenger cars, busses, trucks, and motor cycles registered on January 1, 1931, as stated above.

#### REPLACEMENT PARTS

American participation in the Barbados market for replacement parts is in direct proportion to the number of American cars in use. Bolts, brake linings, fan belts, spark plugs, springs, valves, radiator caps, piston rings, and pins form the chief articles for which there is a small demand, although other parts are handled to some extent.

There is a movement at the present time to press the sale of British-made cars, and should the sale of these increase at the expense of the American product, the market and demand for British-made replacement parts would increase.

The principal American and foreign cars are represented in Barbados by dealers, who in nearly all cases are also operators of garages. Replacement parts are usually ordered direct from the manufacturer of the cars upon which they are to be used.

Credit terms are reported to be generally one month's time, drafts payable, if American, in American currency, with 2 per cent discount for cash.

Bridgetown is the capital and only port or city of Barbados and is the distributing center for all automobiles, parts, etc.

No advertising methods exist in Barbados aside from newspaper announcements, billboards, and individual sales propaganda.

The only special local requirements in regard to motor vehicles and parts appears to be in connection with the drive, inasmuch as all vehicles must keep to the left in Barbados.

#### ACCESSORIES

The accessories generally handled are of a rather limited nature and consist largely of bumpers, bulb and electric horns, hand jacks, tire gauges, and miscellaneous items.

The practice of purchasing replacement parts from the manufacturers of the cars upon which they are to be used, is followed to a large extent with general accessories. The Barbados agent or dealer for a given car carries, as a rule, a line of accessories adopted and suitable to use upon the cars he handles.

Credit terms are chiefly one month, or 2 per cent discount for cash. American accessories are on the whole very popular and are expected to continue so.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Barbados is provided with fairly adequate service facilities at least in connection with cars which are represented by dealers on

the island. The two largest garages which handle two well-known low-priced American cars are provided with well-trained mechanics. Other garages perform, however, work which seems as a whole to be satisfactory in its nature, at least if it is not too technical. American equipment is largely employed in all garages, but owing to the limited number of automobiles, few accidents, and small resources of the island such equipment is of a far more limited nature than would occur in larger centers. No equipment is manufactured locally, and foreign competition exists chiefly in minor garage tools, drills, and wrenches.

The equipment most in demand at present appears to be air compressors, battery chargers, lubricating apparatus, and general garage tools.

The use of mechanical equipment is restricted largely because of the limited number of automobiles in use, the financial conditions of owners and dealers, and general hard times which exist in the island.

The present methods of tire changing are entirely with hand tools. Tire repairing is performed in nearly all garages, which are operated by automobile dealers.

In the absence of American traveling representatives, the best selling method is that of solicitation by mail to the existing automobile dealers and garage owners. Aside from these there would be little or no means of selling, unless certain articles could be handled through commission merchants located on the island. Present distribution methods follow this line and seem to be suitable and satisfactory to local conditions. There does not seem to be any immediate demand for better or more modern service or garage equipment, and it is doubtful whether any marked improvements will occur until the severe economic depression has somewhat abated.

#### BERMUDA

Motor-vehicle registrations as of January 1, 1931: 1 passenger car and 51 trucks.

Bermuda is not a market for any sort of automotive equipment, since the general use of automobiles in Bermuda is prohibited by law. At the present time there are 56 automotive vehicles of all types in the islands, including trucks, tractors, ambulances, fire engines, etc. There is only one passenger car, a small runabout. About 90 per cent of all automotive vehicles are of American manufacture.

Owing to the small number of automotive vehicles, there are no dealers handling accessories or equipment of any sort. The owners of the vehicles import their own supplies as needed. There are, of course, no public garages or service stations, not only because of the small number of automotive vehicles but because most of them are not permitted to use the public roads.

#### GRENADA

Total automotive vehicles registered in Grenada as of January 1, 1931: Passenger cars, 338; trucks, 122; busses, 50; motor cycles, 79.

#### REPLACEMENT PARTS

The market for replacement parts has been given a decided emphasis during recent years by the increasing attention that has been given

to the proper care and maintenance of motor vehicles. Grenada's topography has been the main factor in making it, in relation to its size, a good market for many types of parts. American participation is high in the trade in practically all of these lines.

Parts most in demand in Grenada are brake linings, ball and roller bearings, spark plugs, fan belts, pistons, piston rings, piston pins, shims and shim stock, and bolts of all kinds. There is a small sale of such parts as steering wheels, auto frames, body upholstery material, body hardware, clutch facings, stampings and forgings, and driving and timing gears. Tropical weather conditions are hard on automobile tops, so that in Grenada there is a good market for retopping and top-preserving materials.

Partly because Grenada import duties give a decided preference to British products, a slight gain by foreign manufacturers in the automobile and parts trade at the expense of American products has been noticeable during the past few years. American parts enjoy a much greater popularity than the foreign lines, however, and the increasing competition is almost entirely attributable to the demand for parts for the small "baby cars" of English manufacture.

The leading distribution centers in Grenada are the largest two cities, St. Georges and Grenville. Automobile dealers themselves constitute the only channel of distribution. In the absence of purely independent garages, these dealers perform practically all service work. Usual terms offered in the trade are payment in New York, although importing firms with well-established credit are frequently allowed terms of 30 and 60 days.

#### ACCESSORIES

The demand for accessories is limited, and the American participation in this trade is approximately 85 per cent.

Accessories most in demand are bumpers, hand jacks, license plates, lights, hand tire pumps, tire gauges, seat covers, hand and electric windshield cleaners, various kinds of novelties, tire covers, both fabric and metal. Bulb horns are very popular, but the United States does not participate in this trade. The limited competition from foreign manufacturers is offered by England and Germany, the latter offering many products, such as jacks and tools of all kinds, at a very low price, while the former country supplies most of the better-grade seat covers used. Seat covers of cheaper quality are made locally.

Accessories are marketed exclusively by automobile dealers or their associated garages which carry ample stocks of those items in demand. As in the case of parts, these dealers all import on their own account. Competitive lines are usually handled by each dealer.

The usual terms are payment in New York, with credit of 30 days or longer sometimes extended to trusted companies.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There is an increasing realization in Grenada of the value of adequate service facilities, and the cost of modern equipment is the only limitation to a greater sale. Practically all of the equipment in use is of American manufacture, the proportion probably being 90 per cent. All of the foreign competition in this field comes from England.



Present equipment in use consists almost entirely of inexpensive hand tools, such as jacks, valve grinders, air compressors, gasoline pumps, oil pumps, a few portable drills, reamers, and welding outfits. The garage and shop equipment most needed includes all of the heavier and more expensive riveting machinery and electrical appliances of all kinds. Electrical tools which are of low original cost and do not require a great amount of current to operate would, in all probability, enjoy the best market at the present time.

Tires are changed entirely by hand, and most tire repair work is done in shops operated as part of the garages.

The best method of selling this equipment is undoubtedly directly to the garages, which, through their own organization or through an importer of automobiles, purchase on their own account. Credit of 30 days and longer is frequently extended.

There is a definite realization in Grenada of the need of more complete, efficient, and modern garage and service-station equipment, but the cost in relation to the size of the market, with the fact that hand labor is cheap, retards the installation of such machinery.

### JAMAICA

Motor-vehicle registrations as of January 1, 1931: 5,838 passengers cars, 67 buses, 1,709 trucks, 572 motor cycles.

#### REPLACEMENT PARTS

The outlook for sales in replacement parts during 1931 is considered better than that of the preceding year. Sales of automotive vehicles will decrease, but most of the cars in Jamaica will continue to be used, which should stimulate the purchase of parts.

The articles most in demand include brake linings, clutch facings, springs, gears, electrical parts for generators and starters, fan belts, spark plugs, valves, piston rings, pistons, shim and shim stock, pinions, and bolts. There is a moderate demand for body upholstery material, drive shafts, and bearings, while other parts are called for occasionally only.

Over 95 per cent of the replacement parts sold in Jamaica are of American manufacture, but foreign lines of pistons, piston rings, and bolts are reported to be gaining.

The usual terms offered to the automobile dealers are cash with a discount of 2½ per cent in most cases and also 60 days' credit. The dealers in Kingston, the leading distributing center, offer long credit of from two to six months to the garages throughout the island, and it is stated that they offer a 20 per cent discount for 60-day credit to garages of good standing.

It is suggested that American manufacturers correspond periodically with local dealers with the idea of ascertaining whether or not European parts are being offered at lower prices than similar American items, in order to permit a reduction of prices which will enable American products to meet competition with foreign articles.

In Jamaica most of the sales of replacement parts are effected by automobile dealers in Kingston.

The most effective advertising method for the sale of parts is use of the local newspapers.

## ACCESSORIES

The market for accessories is considered good by the automobile dealers when compared with the number of cars in use locally, due principally to the lack of care given the cars.

Accessories most in demand locally are electric horns, hand and mechanical jacks, tire pumps, tire gauges, speedometers, electric windshield cleaners, and luggage carriers. Other accessory items have only occasional sales. License plates are kept in stock by the Government of Jamaica and sold to those who register new cars. New plates are not required on reregistering a car annually.

It is estimated that 85 per cent of the accessories sold are of American origin. However, the sale of English and German accessories is increasing because local manufacturers' agents have taken on their representation and are soliciting orders from the automobile dealers and garages. These items include jacks, speedometers, mirrors, cigar lighters, and novelties.

Foreign manufacturers are offering accessories at 90 days' credit and at cheaper prices, although in some cases the articles are inferior to American items.

Most of the accessories sold in Jamaica are imported direct by automobile dealers in Kingston who sell to garages in the country sections. However, there are two accessory dealers in Kingston who sell direct to owners.

During the last two years certain manufacturers' agents have taken on the agencies for accessories of all kinds and are making good progress in sales to dealers and garages, especially of foreign accessories.

The best method of marketing a new accessory in Jamaica would be through the medium of a manufacturers' agent who would call periodically on the automobile dealers, accessory dealers, and garages. Otherwise, the American exporter would have to be soliciting orders constantly by mail and catalogue.

Competitive lines are handled by the same companies; the present distribution channels cover the market adequately.

The usual terms of credit offered to the importers locally are cash with a discount of 2½ per cent and 60 days' credit.

Accessories are stocked by car dealers, agencies, garages, service stations, and accessory dealers.

## GARAGE AND SERVICE-STATION EQUIPMENT

During the last two or three years considerable progress has been made in providing adequate automobile servicing facilities. The equipment most in demand locally consists of hydraulic and mechanical jacks, battery chargers, gasoline pumps, high-pressure chassis lubricating and grease-dispensing systems, oil and grease guns, paint-spraying equipment, portable drills and reamers, tire-repairing machines, and small tools such as wrenches and scrapers.

The garage equipment most needed at the present time consists of headlight testers, brake-testing machines, lifting cranes, and other labor-saving devices.

Properly trained mechanics are employed by all the automobile dealers and practically all garages. Many of the mechanics have received their training in the United States, and in the automobile agencies they perform their duties under the supervision of expert mechanics.

All the garage and service-station equipment is of American manufacture. There is no local production, and while there is no foreign equipment in use at the present time, it is understood that one firm will shortly be using English equipment in accordance with its policy of furthering the sale of Empire goods.

In Kingston the garages are operated by automobile dealers, while in the country sections they are privately owned. The high cost of the larger equipment restricts its use by the small garages throughout the country, and also because of the careless manner in which such expensive apparatus is handled in these garages by their workmen.

Electric current is available to garages on an economical basis in Kingston, Montego Bay, and Port Antonio, but not in the smaller towns of the islands where there are no electric companies.

Hand tools predominate in the changing of tires by the garages throughout the island. In Kingston some of the dealers use mechanical tools. Tire repairing is done by both automobile dealers and garages.

At the present time garage and service-station equipment is ordered by the automobile dealers from the manufacturers in the United States as the articles are required. They are then sold to the garages and service stations.

It is believed that it would be advantageous for an American firm to introduce its equipment in Jamaica through a manufacturers' agent who would call on the automobile dealers, garages, and service stations.

The best terms for selling garage and service-station equipment to automobile dealers would be at 60 days' credit or cash with a discount. In selling to the garages and service stations, it would be safer to sell at cash as many of them are not good credit risks. The automobile dealers in Kingston are compelled to wait in many cases as long as 8 or 9 months for cash after having granted credit of only 90 days.

The logical distribution center is Kingston, through the automobile dealers.

Local dealers realize the need for better and more modern service and garage equipment and they have been continually improving it the last two or three years. However, it is not believed that much progress in the sale of such equipment will be made during the year 1931 in view of the unfavorable economic outlook.

#### NEVIS

Motor-vehicle registration includes 12 passenger cars and 2 trucks.

There is practically no market for the sale of replacement parts, accessories, and service-station equipment in Nevis, as the limited needs of the island are all supplied from St. Kitts (St. Christopher).

### 314 AUTOMOTIVE PARTS, ACCESSORIES, AND SERVICE EQUIPMENT

Nevis Island has 12,000 inhabitants and the principal town is Charlestown with a population of 1,500. Nevis has only one road along the sea coast.

There are two small shops which do repairs and carry a few spare parts and accessories. There is no electrical-power station in Nevis, and all tires are changed by hand tools.

#### ST. LUCIA

Motor-vehicle registration as of January 1, 1931: 102 passenger cars, 2 busses, 36 trucks, and 19 motor cycles.

#### REPLACEMENT PARTS

American participation of the above registration amounts to 84 per cent, 100 per cent, 97 per cent, and 36 per cent, respectively, of the total.

Dealers carry only a small stock of parts, such as bolts, brake linings, fan belts, spark plugs, valves, radiator caps, piston rings, and pins. Parts not in stock are obtained from dealers in Barbados. All dealers purchase parts direct from the manufacturers of the cars for which they are agents.

Credit terms are generally one month's time, drafts payable, if American, in American currency, and 2 per cent discount for cash.

Castries is the only port or city in St. Lucia and is the distributing center. No advertising methods exist aside from an occasional newspaper announcement or individual sales propaganda. It does not appear that the market for parts can be increased in the near future.

#### ACCESSORIES

Accessories handled are limited, consisting of bumpers, bulb and electric horns, hand jacks, and tire gauges.

All accessories are purchased from the manufacturer of the cars for which they are used. In St. Lucia the dealer or agent for a given car carries a small line of accessories, and if they are not in stock will order for his customer.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are five garages which have adequate service facilities. Two of the largest, which handle two low-priced American cars, have good mechanics capable of making all repairs.

American equipment is employed in all garages, but is limited, owing to the comparatively small number of cars and the few demands for service work. No equipment is manufactured locally, nor is there any foreign competition.

The present equipment includes air compressors, battery chargers, lubricating apparatus, and general garage tools. No demand exists for this equipment at the present time.

The use of mechanical equipment is restricted, owing to the small number of automobiles in use and the cheapness of manual labor. Tire changing is performed entirely by hand tools, and tire repairing is done in all garages, which are operated by automobile dealers.

The market is very small, and the present method appears to cover the requirements of the Colony. No demand exists for better or

modern service or garage equipment, and little hope can be held out for the future, since the capital of dealers is small and the colony is also suffering from severe economic depression.

#### TRINIDAD AND TOBAGO

Motor-vehicle registrations as of January 1, 1931: 4,500 passenger cars, 350 busses, 1,600 trucks, and 700 motor cycles.

#### REPLACEMENT PARTS

The automobile-retail business, together with its associated lines, has during the past decade, enjoyed a steady growth until at the present time it occupies an important position in Trinidad's import trade. Registration figures show that there are in operation in Trinidad and Tobago approximately 6,500 motor vehicles, including passenger cars, busses, and trucks, of which 90 to 95 per cent are of American origin.

Owing to various factors, the growth of the market for replacement parts has been more rapid than the increase in the automobile registrations. Where previously but slight care was taken of motor cars, now comprehensive and instructional advertising, the introduction of more efficient and time-saving methods, and a higher and more uniform standard of workmanship, have combined to greatly foster the growth of the market for parts.

The difficulty in finding a market for new merchandise during the severe economic depression has resulted in more concentrated efforts by interested business men to maintain and possibly extend the market for replacement parts, which, no doubt, largely explains why this market remains relatively good.

Parts essential to the proper operation of motors are most in demand. These include especially ball and roller bearings, brake linings, spark plugs, fan belts, pistons, piston rings and pins, shims and shim stock, bolts of all kinds, bushings, springs, valves, radiator caps, drive shafts, generators, rims, and rim parts. There is practically no requirement for clutch facings, driving or timing chains, stampings, forgings, gears, body hardware, pinions, steering wheels, or automobile frames.

American products completely dominate the market in replacement parts, accounting for approximately 90 per cent of the trade. There have been no indications which would tend to show that American participation would be weakened in the future.

Owing to the tropical weather conditions, the average life of an automobile top is shorter than in most territories, so that materials for new tops have an unusually good market. The probability is that the use of materials for this purpose will increase, as a number of automobile garages are concentrating their efforts on such lines as engine repair work and top and upholstery repairs, in order to expand this branch of their business in the face of the depressed condition of other branches.

The leading distribution centers in the Trinidad area are the two largest cities of the island, Port of Spain and San Fernando. The leading channels of distribution are the automobile dealers who maintain, in conjunction with their motor-car agencies, the most complete

garages and service stations. Of late there has been noticeable a tendency toward independent garages dealing exclusively in repair and replacement work, but so far it has not been regarded as important.

Terms offered to dealers and distributors of both American and foreign lines are payment on acceptance, although 30 days and even longer credit terms are frequently offered, depending on the credit standing of the dealer concerned.

The most effective advertising methods are short but intensive campaigns conducted through the two daily newspapers, whose advertising rates are very reasonable.

#### ACCESSORIES

The demand in Trinidad for accessories is steady and annually shows a slight increase over the previous year. The fact that most of the automobiles sold are delivered equipped with many accessories, however, must be taken into consideration as affecting the independent sale of such accessories aside from new-car deliveries.

Because of the hot climate, seat covers of cloth and imitation leather are widely used, most of the former being manufactured locally, while the latter are imported from England. Other accessories most in demand are bumpers, hand tire pumps, tire gauges, and novelties. There is also a considerable demand for hand and mechanical jacks, lights, luggage carriers, trunk racks, and windshield cleaners. There are no sales of theft-proof locks, heaters, chains, glare eliminators, and hood and radiator covers.

The American share in the local accessories market amounts to from 90 to 95 per cent. Foreign competition is stronger than in the replacement-parts trade. For such items as bulb horns and cloth seat covers the market is exclusively European and domestic, respectively.

Products manufactured in England and Germany, owing to their cheaper prices, have been growing in competition, especially as regards jacks, hand pumps, and novelties. British-made goods, of course, are imported under a preferential tariff, and many German products are marketed at a price below that of corresponding American lines.

Accessories are marketed almost exclusively by automobile dealers, all of whom carry large stocks. Although there are one or two shops dealing exclusively in accessories, these are of no commercial importance. The present method of marketing accessories would appear to be sufficient for the local market. All dealers carry competitive lines of accessories.

The usual terms in this trade are payment on acceptance, although credit of 30 days or longer is often extended to customers having satisfactory ratings.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Local garages have recently installed more modern equipment and are rendering a much higher standard of motor service than has previously existed. While the present methods are not of the highest standards, they are nevertheless a distinct improvement, and con-

tinued advancement in equipment and standards of workmanship is evident.

The garage and shop equipment most needed are the heavy and more expensive servicing machinery and electrical apparatus of all kinds. The articles most in demand at the present time are, perhaps, electrical tools. This is due mainly to the fact that until recently electric current has not been available for power-driven machinery on an economical basis, but a reduction in the rate has been made so that if considerable quantities of electric current are used by garages it can be utilized on an economical basis.

Most garages are operated by automobile dealers, although lately a few small independent garages have been established. Properly trained mechanics are available at all garages and service stations.

Practically all equipment in use is of American manufacture, with foreign competition slight, and no domestic production.

The cost of mechanical equipment is the principal reason which restricts its use. Owing to labor being cheap, business men do not find it economical to invest money in expensive machinery if hand labor can perform the same duties.

At the present time, the methods of changing tires are about equally divided between mechanical and hand tools, with the hand-tool method still predominating. However, the use of mechanical tools is increasing. Most tire repairing is done in repair shops.

The opinions of the two largest dealers in automobiles and accessories and the operators of garages and service stations differ as regards the most desirable method of purchasing American equipment. One would prefer to deal exclusively with traveling factory representatives, while the other prefers to deal entirely by direct mail. However, none of the large automobile dealers who operate garages does business through a local manufacturer's agent, wholesaler, or jobber, since they all import on their own account and are themselves anxious to in turn sell equipment to small independent garages. Present distribution appears to be satisfactory.

Credit of 30 days and often longer is frequently extended to established firms of good financial standing.

## CANADA

**This Is a Leading Market for American Products, in Which Present Demands Are Active for Parts, Decreasing for Accessories, and Good in Service Appliances—Domestic Producers Offer Heavy Competition**

Motor-vehicle registrations as of January 1, 1931: 1,055,861 passenger cars, 1,631 busses, 168,606 trucks, 9,421 motor cycles.

In view of the unquestioned importance of the Canadian market for replacement parts, accessories, and garage and service-station equipment, this survey is divided into four geographical sections, comprising, first, the Province of Quebec and the Maritime Provinces; second, British Columbia; third, Ontario; and fourth, the Prairie Provinces. The three branches of the automotive industry covered by this study are separately treated under each of the geographical sections mentioned above.

## QUEBEC AND MARITIME PROVINCES

Trade Commissioner E. G. Sabine, Montreal

## REPLACEMENT PARTS

The development of the market for replacement parts has kept pace with the steadily increasing number of motor vehicles being placed in operation each year. The articles most in demand include bolts, brake lining, chains, fan belts, spark plugs, gears, piston rings and pins, valves, and springs.

Between 80 and 85 per cent of the trade is supplied by American manufacturers, the balance going to Canadian producers. The Canadian-made parts which enjoy the best demand are spark plugs, springs, stampings, forgings, and brake linings. Gains are being made by domestic manufacturers in those parts which they produce, mainly as a result of the consumer's desire to buy in Canada whenever possible.

The most general method of distribution is through jobbers who, in turn, sell to garages and retailers, car distributors, and direct to consumers. Motor-vehicle manufacturers sell replacement parts to automobile dealers, sometimes exclusively, who, in turn, supply a substantial part of the demand from subdealers handling the same makes of vehicles. While considerable trade in replacement parts is handled by automobile dealers, the majority of it is cared for by jobbers.

The usual terms are 2 per cent 10 days; 30 days net; and net payable on the 10th or 25th of the following month. These terms apply to both domestic and imported merchandise.

The leading center of distribution in this territory is Montreal. In many cases, distributors in this city not only cover the Province of Quebec, but send their travelers or have dealer arrangements in the three Maritime Provinces of Nova Scotia, New Brunswick, and Prince Edward Island. Second in importance from a distribution standpoint is the city of Quebec, from which the eastern part of the Province is covered. There are also a few firms in Halifax, Nova Scotia, and St. John, New Brunswick, which are adequately equipped to sell throughout the three Maritime Provinces.

There appears to be an increasing tendency on the part of American manufacturers to warehouse parts in one or more of the leading distribution centers in order to more thoroughly cater to demand and also to be able to manufacture certain parts in Canada without delay or loss of markets should circumstances warrant such action. This tendency is not yet well developed.

The requirements and preferences of the market are practically the same as in the United States and probably the most effective advertising is direct mail, although American and Canadian publications are also important media.

## ACCESSORIES

The demand for accessories is noticeably falling off, in view of the standard equipment included on current passenger-car models. On the other hand, novel accessories are continually being placed on the market and, if popular, enjoy a strong, even if temporary, de-



mand. This, however, does not offset the policy of manufacturers making use of accessories as standard equipment on the cars which they produce. All accessories are not thus affected, and all-around replacements keep a good volume of trade moving.

Accessories most in demand are electric wind-shield cleaners, non-skid chains, electric horns, jacks, tire gauges, mirrors, and car heaters.

The market for accessories is supplied about 90 per cent by American manufacture. The only competition afforded American merchandise is that of producers in Canada turning out such articles as chains, jacks, lamps, electric horns, and tire gauges.

As in the case of parts, the largest percentage of the accessory business goes through the jobbers, but in the sale of these articles the importance of the manufacturers' agents is much more in evidence. Agents are appointed on an exclusive territorial basis and cater to the jobbing, department store and, to a more limited extent, the larger automobile dealer and garage trade. In some instances, jobbers act as exclusive distributors. The jobbers sell to retailers, garages, car dealers, and direct to consumers. The choice of these two methods should depend largely on the class of accessory involved. Stocks are generally carried by jobbers. Car agencies, garages, and service stations in most cases stock very moderate quantities of accessories. At times competitive lines are handled by large jobbers, but very seldom is this practiced by manufacturers' agents.

Terms of sale range from 2 per cent 10 days to 30 days and 30 days net.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Rapid progress has been made in providing adequate service facilities in this territory, especially in the larger cities. There is constant pressure, both locally and as a result of the large number of tourists, for further improvement and the use of the most modern devices. Trained mechanics are employed except in the smaller service stations and even then the caliber of work usually is satisfactory. There are no restrictions to the use of mechanical equipment, and electric current is readily and economically available.

The items most in demand are air compressors, auto lifts, battery chargers, brake-testing machines, car washers, gasoline pumps, jacks, oil and grease guns, paint-spraying equipment, portable drills, tire-repairing machines, valve grinders and wrenches.

It is estimated that 90 per cent of the garage and service-station equipment is of American origin. The United Kingdom sells minor quantities of air compressors, drills, and cranes. There is no evidence at present of great expansion of domestic manufacture, although Canadian producers are becoming increasingly active in pushing the sale of such articles as air compressors, jacks, portable drills, grease guns, valve and cylinder grinders, reamers, wrenches, and welding units.

Most of the garages are independently operated, although those controlled by automobile dealers are probably larger and, as a general rule, better equipped.

The largest volume of tire repairing is done in repair shops, and the mechanical method of tire changing predominates.

The logical distribution centers for this type of equipment are the same as in the case of parts and accessories.

Probably the best method of distribution is through manufacturers' agents on an exclusive territorial basis, although jobbers capably handle most items and look after payments, which is an important consideration in the more expensive equipment. However, a considerable volume of this business is sold to garages on the partial-payment plan, and there is greater need for close supervision and individual attention which the manufacturer's agent is in good position to give. Credit terms are more restricted in this class of merchandise and most of it is done on a cash basis, although terms of 30 days net are usually given to large jobbers.

### BRITISH COLUMBIA

Trade Commissioner E. G. Babbitt, Vancouver

#### REPLACEMENT PARTS

The growth of the general automotive market is corresponding to the increase in population. At present British Columbia has an estimated population, in round numbers, of 600,000, so that the proportion of automotive vehicles to the number of people is approaching 1 to 6. The market for replacement parts is keeping pace with the market for vehicles, but in the past year it has increased somewhat out of proportion owing to the fact that fewer new cars were sold than would have been the case under normal conditions. More used cars were sold, and owners who ordinarily would have turned in their old cars for new models kept them in service, replacing parts where necessary.

Among the parts most greatly in demand are bearings, brake linings, pistons, bushings, fan belts, valves, piston pins, gears, piston rings, and spark plugs.

The participation of American manufacturers in this line is greater than in some other branches of the automotive trades, being estimated at about 75 per cent. Competition is almost entirely domestic. There are but few imported motor cars. The proportion of foreign-built trucks is slightly larger than of foreign passenger cars, but the total is unimportant.

Canadian products, however, have supplanted or are forcing out American goods in certain lines, such as brake linings, fan belts, bearings, batteries, springs, clutch faces, and spark plugs. By "Canadian" is meant goods made in Canada. As a matter of fact, such goods are largely made in branch factories of American manufacturers.

Distribution is made through the jobbing and wholesale houses to motor-car dealers and independent garages. Most of the larger distributors of motor cars carry stocks of replacement parts for their own repair work.

The usual terms throughout the trade are 2 per cent discount for accounts payable on the 10th of the following month.

The leading distribution centers of British Columbia are the three cities of Vancouver, New Westminster (practically a suburb of Vancouver), and Victoria.

The most effective advertising is by means of the local daily press and through radio broadcasting. These media have been used for such articles as brake lining, spark plugs, body upholstery, painting, and repair work.

Certain lines, particularly tires, spark plugs, brake linings, oils, greases, and periodical servicing are advertised by direct-mail circularization of car owners. Other lines are best advertised by the distributors to the garage trade or the retail car dealers.

#### ACCESSORIES

The demand for accessories is small and is decreasing since cars are now being sold fully equipped.

Accessories most in demand include nonskid chains, motor meters, jacks, seat covers, car heaters, fog lights, occasional luggage carriers, and novelties. In novelties American manufacturers have an advantage, as the smaller market in Canada does not offer an inducement for local manufacture.

American participation in this trade has been estimated at something over 25 per cent, the balance being Canadian. There is practically no foreign competition.

Accessories are marketed usually through exclusive distributors, who sell them to retail dealers, car dealers, independent garages, and service stations. The distributor carries stocks. Competitive lines are sometimes carried by distributors, but preference is given to exclusive agency lines which offer the most profitable turnover. Retailers frequently carry competitive lines to meet the varying preferences of customers. The present distribution channels more than adequately cover the market; in fact, there are probably too many outlets for the volume of trade.

Terms are 2 per cent for payment on the 10th of the following month.

Accessories are stocked by retailers, car agencies, garages, and service stations only to a limited extent. The distributors carry stocks and respond promptly to calls from the retailers.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Excellent progress has been made in providing adequate automobile service facilities in British Columbia. This is especially true in the principal cities of Vancouver, Victoria, New Westminster, etc. Properly trained mechanics are employed, and while prices are higher than in adjacent sections of the United States, satisfactory servicing and repair work is the general rule.

A good demand for the following items exists: Air compressors, auto lifts, battery chargers, brake-testing machines, car washers, cranes, garage tools, gasoline pumps, hydraulic and mechanical jacks, high-pressure chassis-lubricating and grease-dispensing systems, oil and grease guns, oil-dispensing pumps, paint-spraying equipment, portable drills, reamers, tire-repairing machines including tire changers and vulcanizers, valve grinders, welding outfits, and wrenches. There is a more limited demand for polishing machines, towing and salvaging equipment, and wheel-alignment equipment. The items most in demand at present include air compressors and brake-testing machines.

American equipment is imported to the extent of about 25 per cent, while equipment made in British Columbia includes hoists and some compressors. A considerable part of such equipment comes from eastern Canadian points.

There is nothing to restrict the use of mechanical equipment in this territory. Electric current is generally available to garages on an economical basis for operation of service appliances. The Province is well served in this respect.

Mechanical tools are more greatly in use in the changing of tires. Tire repairing is done more frequently in tire-repair shops, though most garages are equipped for emergency work in this line.

There are more independent garages than those operated by automobile dealers.

The logical distribution areas of British Columbia are Vancouver for the mainland and Victoria for Vancouver Island. These cities not only embrace more than half the population of the Province but Vancouver mainly contains the principal firms engaged in every line of business including the various phases of the automotive trade. General distribution is from Vancouver to the localized centers of the interior and the coast.

The best selling method is through the large wholesalers, though in some lines the manufacturer's agent is equipped to care for the trade. Factory branches or direct factory representation has also been employed in this district.

The usual selling terms are 2 per cent for payment by the 10th of the following month.

There is a growing recognition of the need of the most modern and scientific service and garage equipment. The demand will increase with the growth of the population and the corresponding increase in the number of the motor vehicles in service. The year 1930 was comparatively poor for the industry, but a considerable improvement is looked for in 1931.

## ONTARIO

Assistant Trade Commissioner Avery F. Peterson, Toronto

The Ontario market is in many respects comparable with similar trade in areas of the northern United States. Automotive registrations on a basis of population are less in this section than in the United States, being slightly in excess of six persons per vehicle.

In addition to the registrations in this section consideration should also be given to the market for automotive equipment furnished by tourist traffic in Ontario, which is showing steady increases, with the influx of cars usually about twice the number of Canadian cars leaving Ontario. Tourist trade undoubtedly offers a good market for automotive equipment, as in many instances the cars are given more severe work than usual, and the need for replacements becomes known along the road. In the tourist trade the necessity for prompt service is apparent.

It is probable that most of the competition met in this trade in the immediate future will be of Canadian manufacture, as automotive equipment from European and British sources is not in line with American engineering and style practices followed in this market.

No unusual merchandising problems are apparent in the trade, but there is some feeling that jobbers tend to handle too many diversified lines and that the retail outlet for a manufacturer's product is too far removed from possible sales assistance and pressure from the manufacturer. This condition is not the case, however, with agency dealer replacement-parts business, in which the sales outlet is kept in close touch with the manufacturer of the parts.

In the immediate future the outlook is excellent for sales of parts, as much hesitancy has been discovered in the sale of new cars, and it is believed that many car owners will recondition cars now owned and likely operate them for at least part of the forthcoming season. While garage equipment has been somewhat retarded by general market conditions, the expected increase in repair business is likely to have a favorable effect on the sale of equipment for use of repair and service businesses. This demand should follow better business in replacement parts. Independent garages have been less affected by reduced automotive sales during the last year. As compared with agency dealers, the overhead cost of establishments primarily engaged in repair and reconditioning work has been lower; they are, therefore, in better position to add to their shop equipment.

The outlook for accessories does not show prospects of marked change in the immediate future. In Ontario this is a fast-changing line in many respects, and there is a tendency for jobbers and dealers to keep minimum stocks of certain types of accessories to avoid being caught with merchandise which, by reason of style changes or changes in initial equipment of new cars, is made difficult to sell. Style and novelty lines are reported to have been somewhat slower than accessories for maintenance or lines essential for winter driving.

#### REPLACEMENT PARTS

The market for replacement parts in Ontario has shown a consistent increase. Those items most in demand include gaskets, particularly cylinder-head gaskets, brake lining, fan belts, starter and flywheel gears and spring parts for this assembly, ignition wiring systems, replacements to starting and lighting generators, cooling-system parts and couplings, and other equipment required in the engine and power-transmission units. As the mileage of a car increases, more essential engine parts are commonly replaced, requiring spark plugs, piston rings, oversize pistons, wrist pins, timing-system parts, bearings, connecting rods, valves, and electrical-system parts.

Accidents and collisions are causes for the sale of a variety of replacement parts, especially those for the body, is contrasted with the engine and chassis. Included in this group are fenders, wheels, running boards, and body hardware. In this line the agency parts dealer has little competition. Mechanics who specialize in repairing damaged automobiles have developed skill in this work, and the use of more workable metals for fenders and bodies has somewhat reduced the market for these parts.

American participation in this trade is predominant, although there is considerable production of replacement parts in automobile factories which manufacture rather than assemble in Canada. This supplies particularly heavier items of replacement parts and articles

which do not require elaborate production machinery or precision work for the manufacture of parts.

Foreign competition is negligible. Only two English lines were discovered in the market, one for use in automotive electrical systems, the other a part for universal joints, both being minor lines.

The following are examples of replacement parts in which Canadian-made competition is a considerable factor: Brake lining, roller and ball bearings, headlight lamps, electrical cables, radiator and gasket cement, clutch facings, fan belts, silent timing gears, packing, radiator cores, spark plugs, springs, and spring parts.

Ontario market requirements for replacement parts depend on a variety of factors, chief among which are weather and driving conditions, activity of new and used car sales, and general intangible factors affecting purchasing power. Instances have been noted where marked demand for such items as clutch-facing parts have naturally followed a heavy fall of snow, and untimely freezing weather has developed a call for radiator parts, cylinder heads, and gaskets.

Distribution is divided between two main classes of dealers, namely, those independent of automotive agencies and those whose parts are primarily manufactured by the automobile producer which the dealer represents. It is reported that, as compared to the United States, replacement parts of independent manufacturers are more extensively sold than are parts made in automobile factories.

In view of the present reduction in car sales, the car producers have come to look upon the parts department as a source of needed profit and have sought to extend their agents' share of this business. It is usual to require an agent dealer to carry a certain minimum of replacement parts, and manufacturers seek to have as complete a stock carried as possible. Replacement parts carried by agency dealers have been reduced in price in recent months.

Independent parts jobbers also cater to automobile agency dealers and seek to have their lines carried. It is said that some timidity is encountered among agents in the taking on of independent lines competitive to a line manufactured by the firm represented by the agent. However, agents in this territory are said to carry more independent parts than is common in the United States.

Considerable competition exists between automobile agency parts dealers and independent dealers for the trade of repair garages. Independent parts dealers were first to offer a discount to repair men, but it is now being given by both types of houses. This discount is usually between 20 and 25 per cent, depending on competition and volume of business.

Discounts in replacement parts lines are affected by the extent of demand for specific articles, the extent of use of advertising, and competitive conditions. On the whole, discounts are fairly high, being reported by several jobbers to approximate, on the average, 60 per cent. Manufacturers' agents usually receive about 10 per cent commission on sales of lines represented.

As far as can be learned, there is little difference between trade practices of domestic manufacturers and American manufacturers, and prices and terms offered are reported to be similar.

In replacement-parts advertising, the most generally used medium is the trade journal, of which there are two published, both of which cover the entire Dominion. Consumer advertising of replacement parts is not generally practiced in this section, although there is some effect of advertising in national magazines published in the United States.

#### ACCESSORIES

Ontario dealers in the accessory trade state that while business is fairly consistent in volume, it shows a marked tendency to change in character from year to year. However, it seems that as fast as one line is absorbed as standard equipment, new ones appear to take its place, and the total volume of trade is not greatly changed. During the past year, trade in accessories was somewhat slow, especially in novelty lines and articles which might be considered as nonessentials. Reduction in new-car sales affected the accessory business.

Accessories of United States manufacture are most popular in Ontario, and those which are produced in Canada follow the style of American lines. However, a number of accessories are made in industries other than the automotive industry, and as a result many brass foundries, molded-goods factories, and other establishments are to a minor degree interested in the trade. Chemical accessories and polishes, as well as antifreeze and paint products are largely of Canadian manufacture.

Generally, the articles manufactured in Canada are inclined to be fairly heavy or bulky and of a class not requiring special expensive dies or machining. Where the manufacture of an article requires a specialized manufacturing process, the Canadian market does not warrant local production.

Bumpers probably are the single accessory line most in demand, as it is a common practice for a new-car owner to install these on a new car before it is taken out of the garage. Luggage carriers and trunks, together with special parking and stop lights, are also popular with the new-car owner; and certain novelty lines, such as special radiator caps and similar articles, find ready sale.

Throughout the more populous sections of Ontario, cars are commonly run during the winter, and there is a heavy demand for car heaters. Winter driving is also conducive to extensive sale of non-skid chains and wind-shield cleaners of all types. A satisfactory sale has been made of an electric wind-shield cleaner for removing moisture from the interior of closed cars. Parking lights find ready sale in larger communities.

Competition other than that from domestic manufacturers is negligible, and it is not believed that foreign competition will be a factor in this trade, as the style of automobiles here is directly in line with American products.

Accessories are effectively sold through manufacturers' agents, who maintain contact with the jobbing trade. Automotive jobbers are of several varieties, some of which cover specific trade, and, by proper contact with several firms, it is possible to cover the hardware stores, accessory dealers, service-station operators, and other trade outlets.

In certain novelty lines it is often desirable for the manufacturer to consider retail outlets other than those commonly making a business of automotive lines. Often a good sale can be obtained through chain-store systems and other establishments which might be willing to display an accessory line.

If an accessory line requires considerable instruction to the retail dealer in order to properly sell the line, it is sometimes well for the manufacturer either to deal direct with jobbing houses or else assist the manufacturer's agent in his contact with jobbers and other intermediaries in the trade. It is important that the jobber be fully informed of advantages of a product in order that his salesmen may properly present it to the retail dealer.

Competitive lines are sometimes handled by the jobber, but rarely so in the case of manufacturers' agents. Usually when the jobber handles two competitive lines, there must be a price differential between them.

Present distribution channels appear to cover the market adequately, although the fact that jobbers in many instances handle a great number of accessory lines probably constitutes a disadvantage in the present distribution system. There is some belief that lines stand a chance of becoming "buried" as a result of the diversity of jobbers' stocks.

Terms to the trade vary greatly depending on the amount of sales effort required to successfully sell an article. On the average, it is believed that discounts range between 35 and 40 per cent to the jobbing trade, and manufacturers' agents usually receive about 10 per cent commission on total sales of lines represented.

Accessory stocks are quite generally carried by automobile dealers, these stocks usually being extremely small. The general rule is that a dealer has access to required accessories from accessory dealers, and when a new car buyer is sold or requires accessories, these are obtained from the accessory dealer, usually at a discount from retail prices. There is, however, a tendency for agency dealers to give more sales effort to accessory lines.

Independent accessory dealers usually carry a varied stock of articles. Novelty lines are included, as well as a wide variety of seasonable stock, but there is little uniformity in stocks carried. Usually the line is complete, but in some cases a firm will specialize in a few lines or even one, thus making a business of automobile trunks or such articles as car heaters and radiator shields.

In this territory there seems to be few of the "variety store" type of accessory dealer, in whose store automotive and radio parts are displayed in the boxed counter commonly found in lower price stores.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Ontario garages and service stations show considerable progress in providing for efficient equipment, and particularly in the urban districts conditions are comparable with those found in the United States. However, there is room for improvement and educational work in this field. It is reported that in smaller communities a good proportion of existing equipment is inefficient, and in many localities the amount of service and repair work is thought to warrant sale of



modern equipment. On the whole, the extent of use of modern garage equipment varies with the density of population in sections of the Province, but where good roads have brought tourist traffic, better equipment is usually found.

The predominance of the automobile-manufacturing industry in Ontario has provided favorable conditions for the training of mechanics, and the service men found in garages are comparable with those in the United States.

Practically all of the garage and service-station equipment is either of American origin or is of Canadian manufacture following American design. In recent years there has been a tendency for some of the equipment to be manufactured or partly manufactured and assembled in Canada, particularly in the heavier, bulky types.

The United States supplies the greater portion of the garage equipment, and foreign competition is negligible.

Electric current is generally available throughout Ontario at economical cost. Tire-repair shops are usually mechanically equipped for removing the casing from the rim. In smaller shops there is room for considerable sale of equipment of this type. Although competition in automotive service has caused many garages and service stations to go into the tire-repair business, it is believed that the bulk of repairing in this section is done in shops equipped for this work and catering to this trade.

The main distribution in usual lines of garage and service-station equipment is most common through manufacturers' agents, who cover the jobbing and wholesale trade. American firms which have sold through manufacturers' agents have continued these connections for many years, thus indicating their satisfaction with the method.

Equipment lines requiring special technical sales instruction sometimes require more in the way of selling effort than can be furnished by manufacturers' agents, in which case the product may require that direct selling be undertaken either to the jobbers or direct to the garage and service-station trade. The determining factor is the nature of the equipment.

Present distribution methods cover the market adequately, but there is room for additional sales help from the manufacturer directed to the jobber and to the purchaser of automotive equipment.

Garage and service-station equipment is generally sold to jobbers at discounts averaging about 30 per cent, and manufacturers' agents usually receive about 10 per cent commission on total sales of lines represented. As in other lines, discounts vary with particular lines, depending on competitive conditions and extent of selling help given the product in the way of advertising and field work.

The main distribution centers correspond to those for replacement parts previously mentioned, except that the equipment line is centered more around the border cities of southwestern Ontario. Freight costs are more of a factor in garage equipment, and distribution centers are for that reason more clearly defined. Leading local distribution centers other than Toronto, include Hamilton, London, Ottawa, Windsor, and Peterboro.

Automotive trade journals of Canadian circulation have stressed the necessity for up-to-date equipment. This missionary work is bound to prove of value in extending sales. It is believed that the

majority of garage owners appreciate that labor cost of garage mechanics is heavy and that any investment in equipment which will materially increase shop output is a profitable investment. Competitive conditions between garages serving the same local trade is also a factor in the sale of this equipment.

### PRAIRIE PROVINCES

Trade Commissioner John A. Embry, Winnipeg

#### REPLACEMENT PARTS

The market for parts in the Prairie Provinces has shown steady growth. Of all motor vehicles sold in this territory, 39 per cent are of American manufacture, and all replacements are imported from the United States. The Canadian plants of two American firms which account for 61 per cent of the motor vehicles sold in this territory manufacture replacement parts for their cars in Canada.

Parts most in demand include spark plugs, gaskets, pistons, piston rings, bushings, clutch facings, bearing, fan belts, gears, pinions, and springs. Foreign competition does not exist.

Distribution for American cars is partly effected through service stations run in connection with car-selling agencies, but the bulk of the business is still being done by large jobbers. The present tendency, however, is for the car manufacturers to put the parts business in the hands of their car dealers by refusing to sell to the jobbers in the territory given to the car dealer.

Practically all parts business done by American manufacturers is on a strictly cash basis, whether the replacements are sold to car dealers or jobbers.

The leading distribution centers in the Prairie Provinces are Winnipeg, Calgary, Regina, Edmonton, Saskatoon, and Lethbridge, in the order of their importance.

Requirements and preferences in the parts business in Canada may be said to be the same as those existing in the western part of the United States. Motor-vehicle owners expect and are given replacement parts identical with the original part which had to be replaced, so far as it is possible to do so.

Owing to the practice of car owners going to the service station operated by authorized car dealers or to responsible near-by jobbers and demanding replacement parts identical with the original equipment, little or no advertising is done. The media used by car dealers to keep car owners sold on the idea of having an authorized dealer make their replacements are newspapers and circulars.

#### ACCESSORIES

The demand for accessories is rapidly declining as a result of the growing practice of car manufacturers to include the more desirable items as standard equipment.

Accessories most in demand are car heaters, chains, gauges, radiator shutters, frost-proof windshields, bumpers, jacks, and other hand tools. The American share is estimated at 95 per cent, and foreign competition does not exist.

Accessories are marketed through exclusive distributors purchasing for their own account and through commission agents selling direct to wholesalers and the larger department stores. Both classes of distributors are protected by the manufacturer in their territories. Stocks are generally carried by the larger distributors, but orders secured by commission agents from the large department stores are usually filled by the manufacturer and shipped to these concerns direct. Competitive lines are rarely handled by the same distributor. The present distribution channels are believed to cover the market adequately. A number of exclusive distributors of automotive accessories located in Winnipeg maintain travelers who call regularly on the dealers in their territory.

The usual terms in the accessory trade are 2 per cent, 30 days; 60 days net to the better class of distributors. A few manufacturers give June and July datings to March and April orders, or 90 and 120 days' terms against trade acceptances.

Accessories are stocked to a small extent by practically all car agencies, garages, and service stations, but the bulk of the stock may be said to be in the hands of the automobile accessory departments of department stores and independent dealers in automobile equipment.

#### GARAGE AND SERVICE-STATION EQUIPMENT

The character of the garage and service equipment compares favorably with towns and cities of equal size in the United States. There is a constant demand for more and better equipment, and this demand is being filled as rapidly as business conditions seem to warrant.

Items most in demand at present are hoists, car washers, air compressors, battery chargers, garage tools, oil and grease guns, portable drills, reamers, valve grinders, and wrenches.

Eighty per cent of the garage and service-station equipment used is of American origin. Foreign competition is practically nonexistent, but domestic competition is increasing, a growing amount of air compressors, hoists, oil dispensers, and jacks being made in eastern Canada.

Electric current is generally available throughout the Prairie Provinces and compares favorably in cost with the current supplied to the towns and cities of similar size in the United States. Mechanical and hand tools are used for changing tires with practically all tire repairing done in repair shops.

It is estimated that only 10 per cent of the garages and service stations are operated by automobile dealers. However, at the present time all important automobile dealers maintain service departments. This is a rather recent development, and consequently service stations operated by car dealers usually have the best equipment.

In the absence of direct traveling representatives the best method of selling garage and service-station equipment is through exclusive manufacturers' agents. This is the practice at the present, and existing distribution methods are believed to be satisfactory.

Practically all garage-equipment business done by manufacturers is on a cash basis. Many distributors complain against having to pay cash to the manufacturer because they are often under the necessity of extending credit to garage owners in order to get business. Lack of capital necessitates small and frequent orders.

Logical distribution areas are grouped around the cities of Winnipeg, Calgary, Regina, Edmonton, and Lethbridge.

The need for better and more modern equipment has long been recognized, and such equipment will doubtless be acquired as fast as business conditions warrant. Collections at the present time in all lines of automotive business are very slow, and it is not believed the conditions can improve materially before the next harvest.

## COSTA RICA

**Demand for All Types of Replacement Parts, Accessories, and Service Appliances Depressed or Inactive—American Products Predominate—There Is No Domestic Production or European Competition**

Vice Consul Roderick W. Unckles, San Jose

Motor-vehicle registrations as of January 1, 1931: 1,233 passenger cars, 105 busses, 476 trucks, and 99 motor cycles.

The demand for replacement parts and accessories has been relatively attractive but has suffered to a considerable extent because of the general trade depression of the country. It appears that the demand for garage and service-station equipment will not be promising for some time. In the past this has probably been caused by the reluctance of owners to invest much capital in enterprises of which there were already too many; none of which produced much more than a small profit.

Replacement parts enjoying the greatest demand are ball and roller bearings, brake lining, clutch facing, fan belts, spark plugs, pistons, piston pins and rings, rims and rim parts. Accessories in greatest demand are electric horns, hand jacks, and shock absorbers.

Costa Rica has always been preeminently a market for American automotive vehicles, and there is practically no competition in parts, accessories, or garage equipment. There is no domestic manufacture or prospects that there will be except the occasional production of a spring leaf from spring steel imported from the United States.

With but one exception garage service has been supplied by numerous small machine shops already established and by individuals with a mechanical inclination who often have had experience as chauffeurs. As a general rule garage service is deficient.

Although the demand for garage equipment is now inactive, the following items have been purchased in the past: Battery chargers, hydraulic and mechanical jacks, oil and grease guns, reamers, valve grinders, welding outfits, and wrenches.

It has been the practice in the past for local distributors to purchase direct from American manufacturers, which is probably the best method. Even garage and service-station equipment has generally been obtained in this manner. The aggregate trade in parts and accessories has been relatively attractive, but individual purchases usually have been small. No local manufacturer's representative has evinced the desire to act for producers, whereas the latter have always signified a willingness to deal direct with distributors here. Credit terms should never be less than 30 days' sight draft against documents; usually 60 days' sight is allowed. It would be difficult to

demand cash with order or confirmed letter of credit, or even sight draft against documents.

Replacement parts and accessories are stocked by car agencies and service stations, practically all of the latter being engaged as distributors. Some of the smaller items of garage equipment are also stocked by car agencies and service stations; other items are requisitioned direct as needed.

There are no serious obstacles to be overcome in further development of the local trade; that would depend almost entirely on increased importations of automotive vehicles. At the present time, however, the principal factors affecting the trade are the depressed trade situation, which has greatly affected the importation of automotive vehicles, and, second, their local operation, as many passenger cars and trucks are retired for reasons of economy.

When the present situation shall have improved, demand for parts and accessories should again assume relatively attractive proportions; meanwhile the trade is abstaining from importing anything but those articles for which an active demand exists, and in the smallest quantities possible.

### CUBA

**Replacement Parts Demand Fair, Accessories Declining, Service Appliances Limited—American Goods Predominate—European Competition Limited**

Trade Commissioner Howard H. Tewksbury, Habana

Motor-vehicle registration as of January 1, 1931: 26,624 passenger cars, 1,776 busses, 12,822 trucks, 434 motor cycles.

### REPLACEMENT PARTS

With the steadily increasing number of motor vehicles in circulation in Cuba, there has been a corresponding growth in the market for replacement parts.

It is estimated that of all the motor vehicles in Cuba approximately 99 per cent of them are of American manufacture, and except for a limited number of articles, the same ratio applies for replacement parts.

Of the parts imported approximately 86 per cent of the total came from the United States in 1927, 96 per cent in 1928, and 98 per cent in 1929.

Those parts subject to constant wear have by far the largest sale. Until the opening of the central highway, there were very few good roads, and thus cars and trucks were subjected to hard treatment, especially those used outside of Habana. The following paragraphs indicate briefly the demand existing for a number of the more important parts.

A fair demand exists for plain bearings, and this is supplied entirely by American manufacturers.

There is a good demand for ball and roller bearings, the former being one of the few parts in which European competition is important. Swedish and Italian makes secure 50 per cent of the market demand. These two makes obtain some of the roller-bearing

business, but probably not over 15 per cent, and competition in this item is declining.

There is a good demand for bolts, a very good sale for brake linings and clutch facings, small demand for driving and timing chains, good sales of fan belts, spark plugs, and valves. Springs have had good sales up to the present time; prior to the completion of the central highway the roads were extremely poor and breakage frequent. There is some feeling that this demand will not be as active in the future. Sale of radiator caps, stampings, and forgings is small, as is the demand for pistons, but piston pins and piston rings enjoy excellent sale. The demand for body hardware is confined almost exclusively for use on truck and bus bodies of local manufacture, and the requirements are not large. A moderately good demand exists for body upholstery material. The climate in Cuba is such as to cause rapid deterioration of artificial leather. There is a fair market for gears and pinions, also drive shafts, rims and rim parts, and tire valves. There is practically no sale for steering wheels, automobile frames, and shims. A small demand exists for starting and lighting generators. Almost all of these items are supplied by American manufacturers.

Competition is keen, but is confined almost entirely to products of different American manufacturers. Some European competition does exist, aside from ball and roller bearings, but it is confined almost exclusively to supplying such articles as may be needed for the few European cars in circulation. There is practically no domestic manufacture, and there is little possibility of any development in the future.

There is a strong tendency toward the distribution of replacement parts through the manufacturer's agents rather than through exclusive distributors. While it was formerly quite common to give exclusive representation to a large importer, it has been found that a greater volume of trade can usually be developed by dealing through a commission representative. The latter can generally sell to several of the large importers, whereas if the exclusive representation is given to a single importer this firm can sell only to its particular clientele. For the most part the manufacturer's agents do not sell to any but the importers, which consist of jobbers, car distributors, and large retailers. The market is not sufficiently great to make it possible to limit sales strictly to jobbers or wholesalers. The importers, in turn, sell to the smaller retailers, garages, service stations, etc. This method of distribution applies likewise to accessories and garage and service-station equipment.

It is estimated that roughly 80 per cent of the sales are made against 60-day sight drafts. In some cases shipments are made against 90-day sight drafts, but this is generally avoided where possible. Sales are rarely made against cash in New York or even cash against documents in Habana. Manufacturers who are not prepared to meet the terms usually granted will find it extremely difficult to enter this market.

It is estimated that probably 80 per cent of Cuba's automotive equipment is handled through Habana. The principal secondary distribution points include Santiago, Camaguey, Cardenas, and Cienfuegos. In some instances direct imports are made through Santiago and Camaguey, although rarely through the other points.

All types of advertising are used in Cuba, including newspapers, periodicals, billboards, etc. It is generally considered that the most effective advertising is direct mail and space in the newspapers and automotive journals. Of the newspapers, *El Mundo* and *Diario de la Marina* are important. Among the automobile publications the *Automovil de Cuba* has the greatest circulation.

#### ACCESSORIES

For the past few years the sale of accessories has been steadily declining, owing to the growing practice of car manufacturers to include these items as standard equipment. Furthermore, adverse economic conditions prevailing in Cuba during the past year have accelerated this decrease.

The market for the individual accessories is indicated as follows:

There is a good sale for hand and mechanical jacks. Price, however, is an important factor, and the more expensive types have but little sale.

Lubricating systems enjoy a moderately good demand, and the sale of rear-view mirrors is fair.

Seat covers are used extensively, and in practically all cases are manufactured locally. The majority of the covers are made from a combination of straw matting with bindings and trimmings of imitation leather or similar products. The straw matting is practically all imported from Japan, whereas the bindings and trimmings and other seat-cover materials are purchased from the United States.

There is practically no sale of body hoists. Demand for bumpers is principally for replacements. Nonskid chains are prohibited on the central highway and in Habana, and therefore they have very small sale. Hood and radiator covers are not used at all, but there is a fair demand for tire covers, used chiefly for advertising purposes.

Chamois is used in polishing cars and is imported from France, but the sale is not large.

There is no sale of glare eliminators, radiator-heat indicators, and bulb horns, although there is a good demand for electric horns. There is a fair sale of lamp lenses for replacement, and small demand for spot lights, head, rear, stop, and parking lights. License plates are made locally. Theft-proof locks have almost no sale.

The sale of tire pumps is confined to the cheapest products and is only moderately good. There has been no demand for luggage carriers and trunk racks, but there may be a small increase in the sale of these products with the increased use of motor cars resulting from the opening of the central highway.

There is no market for radiator shutters and shields. Shock absorbers are rarely purchased, except for replacement, as is the case of speedometers. Taximeters are not used. There is a small demand for tire gages. No market whatever exists for windshield visors nor for electric windshield cleaners, but there is some market for the vacuum-type cleaners.

There is no sale of windshield wings, and car heaters are never needed. Novelties have some sale, but with business conditions as they are, few are sold at present.

American participation is practically 100 per cent, with foreign competition even less in the accessory field than in the case of replacement parts, being confined almost entirely to two or three items.

Accessories are marketed in practically the same manner as replacement parts; that is, they are sold by manufacturers' agents to automotive accessory and car importers, who in turn sell to the smaller retail establishments and garages. In some instances importers have exclusive representation; but there is a tendency toward granting the exclusive representation to the manufacturer's agent, which appears to be the most effective method of distribution. Stocks are generally carried both by the accessory and car importers.

Occasionally competitive lines are handled by the small companies, though this is generally not the case, and manufacturers' agents are careful to avoid this where possible. The large importers generally have traveling salesmen who cover the island, and the market is easily covered from Habana.

Accessories are generally carried in stock by car agents, garages, and service stations as well as by the accessories dealers.

Accessories are generally sold against a 60-day sight draft, though some manufacturers grant up to 90 days, and, in rare instances, sell on open account. The latter is not, however, recommended.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Very little progress has been made in providing adequate service facilities in Cuba. There are very few well-equipped service stations, and these are usually the stations of car dealers. It is possible to secure good mechanics, though there is a great variation in the type of work done.

All types of mechanical equipment are needed, but at the present time, principally because of the adverse business conditions, service stations are unwilling or unable to invest any capital in this type of equipment. Many of the garages and service stations are finding it difficult to make collections and likewise to meet their obligations. With economic conditions as they are, they are hesitant to make further investment even if funds are available.

Air compressors are used by a few of the more important service stations, as are auto lifts, cylinder-boring machines, cranes, lubricating systems, and welding outfits, but there is practically no demand for additional units. There is some market for battery-charging equipment, garage tools, hydraulic and mechanical jacks, portable drills, reamers, etc. Gasoline pumps have had a fair demand, and most of the garages and service stations are equipped. There is a fair sale of oil and grease guns and also of oil-dispensing pumps, as well as paint-spraying equipment and wrenches. Wheel-alignment equipment is almost unknown.

The equipment in use is almost exclusively of American manufacture, but mechanical service-station apparatus has up to the present time made little headway. None of the mechanical equipment is made locally, and there is little prospect that any industry of this sort will develop. Likewise European manufacturers have not succeeded in making any headway in Cuba.



Distribution is generally handled in a manner similar to parts and accessories. The manufacturers' agents are considered the most effective distribution medium.

Service-station equipment is generally sold on a 60-day sight draft, though some sales are made with a draft drawn at 90 days' sight.

Electric current is available in practically all parts of the island, and the price is moderately reasonable. Mechanical tools are usually used for changing tires, and most of this work is done in tire repair shops. A limited amount is done at garages by hand tools.

As soon as there is any material improvement in the business conditions it is very probable that an increase will be noted in the sale of various types of equipment. At the present time, however, there is practically no movement of these products. Although there is a real need for practically all types of equipment, it is very doubtful if conditions will improve to a point where any substantial increase in sales will occur for at least a year.

### DOMINICAN REPUBLIC

**Demand for Replacement Parts Good, Accessories Restricted, Service Appliances Depressed—American Percentage Runs 98 of the Total Business**

Vice Consul Hedley V. Cooke, Jr., Santo Domingo

Motor-vehicle registration as of January 1, 1931: 2,810 passenger cars, 751 trucks, and 78 motor cycles.

The market for replacement parts, accessories, and garage equipment is naturally limited, owing to the small number of motor vehicles.

At present the Dominican Republic is experiencing the effects of extremely subnormal conditions, caused by the natural reaction of the world-wide crisis, the low quality of recent crops and the weakness of foreign markets for Dominican agricultural products, and the effects of the hurricane of September, 1930, which swept over a wide area and wrought great destruction.

Under these circumstances, many automotive dealers have accumulated surplus stocks, which they are unable to dispose. The more reliable merchants are now manifesting a justifiable reluctance toward the assumption of new lines of merchandise, particularly those which are not readily marketable in the Republic.

There has never been a large number of wealthy people in the Dominican Republic. Consequently even those who were in command of sufficient resources for the ownership of an automobile have often felt the need of economizing on the purchase of parts which were not absolutely essential for the maintenance of a car.

### REPLACEMENT PARTS AND ACCESSORIES

In view of the small number of cars, the demand for replacement parts is relatively large. The roads of the interior are in poor condition, and all but a limited number of the city streets are decidedly unsatisfactory. It is scarcely possible to operate a car in the Republic without having to run frequently over roads which would be regarded in the United States as wholly inadequate.

The life of any given part of an automobile is much shorter than in the United States or Europe. As the result there is a constant demand for nearly all of the internal replacement parts. Those in greatest demand are springs, brake lining, pistons, piston pins, and piston rings, with the greatest demand of all for springs. Instances have been cited where one car has required two new springs in one day of driving through the streets of Santo Domingo city.

The market for accessories has never been satisfactory, largely due to economic conditions. The items most in demand are radiator ornaments, electric horns, lights (except parking lights), and theft-proof locks.

#### GARAGE EQUIPMENT

Automobile-service facilities are adequate in Santo Domingo city, fair in a few of the other cities, and poor along the highways of the country. In Santo Domingo modern garage equipment and trained mechanics are found. Elsewhere hand equipment for garages is still purchased. Although the need of better facilities is realized by automobile owners, the condition of the local trade is so poor that few garage owners feel justified in installing extensive new equipment. There is no local manufacture. About 99 per cent of the articles sold in the Dominican Republic are of American origin.

Replacement parts, accessories, and garage and service-station equipment are distributed throughout the Dominican Republic by automobile dealers in Santo Domingo. Several of these dealers have branch shops in other cities of the Republic, such as Puerto Plata and Santiago.

Distributors in Santo Domingo usually stock these products and pay on a strictly cash basis. Discounts, of course, vary as to article, but it is safe to offer the general statement that the terms usually offered by American manufacturers are regarded as liberal by Dominican importers.

Service stations usually carry small stocks of accessories, which they can obtain either from distributors or from nearby automobile dealers, this depending upon the quantity that they purchase.

Competitive lines are frequently handled by one company, but in some cases American manufacturers have made arrangements with Dominican distributors limiting the latter to the handling of one line only. The latter is, of course, the best method. In order to obtain the best results in the market, an American manufacturer should arrange that only one firm handle his line. Most garages are owned by automobile dealers.

The best medium for advertising is the circulation of literature among distributors in Santo Domingo city. These distributors should, of course, be supplied with sufficient literature for distribution among their customers. Practically all of the leading distributors are willing to devote close study to all correspondence from American manufacturers.

## FRENCH WEST INDIES

Vice Consul William F. Robertson, Martinique

## MARTINIQUE

Motor-vehicle registrations as of January 1, 1931, in Martinique: 1,760 passenger cars, 100 busses, 440 trucks, and 125 motor cycles.

## REPLACEMENT PARTS

The common use of the automobile in Martinique began during the early part of the World War, when only American cars were available. This initial advantage was offset by postwar increases in the French import duties and advertising by French manufacturers appealing to the buyers' patriotism. It is generally conceded, however, that American cars have a decidedly satisfactory performance and that their popularity in this market will remain assured.

The competition of foreign replacement parts is somewhat keener than that of new foreign automobiles, particularly of those parts which are considered to be suitable for use on any make of car. All upholstery material comes from France, as do bolts, straps, and other hardware used in making wooden bodies for busses and trucks. About half of the spark plugs are of American origin. Brake lining and springs come largely from France.

The policy of automobile manufacturers in urging the use of "original parts" and in requiring their agents to stock such parts, combined with the local lack of facilities for major repair jobs and of mechanics whose skill in repair work goes much beyond the ability to assemble ready-fitted pieces, have produced a condition in which American parts are largely used in the repair of American cars and French in the repair of French cars.

As long as this condition continues and the French tariff remains at its present high level, the market for American replacement parts will probably be limited to "original parts" and the parts which have clearly shown their superiority over similar French items.

There is, strictly speaking, no wholesale trade in Martinique in replacement parts. The distribution is principally through automobile dealers in Fort de France, who are the only operators of important repair shops. These sell to each other, and to the small repair shops, parts as required. There are, in addition to the dealers, two firms in Fort de France which do a retail and small jobbing business in electrical and automotive supplies, accessories, and parts.

American automobile manufacturers, as a rule, ship only against a New York credit or bank guaranty. Parts exporters ship payment against documents and at 60 days, with discounts for anticipated payments. French exporters' terms are usually 90 days, with discounts for anticipated payments. Some of this business, however, seems to be done on open account with interest.

## ACCESSORIES

The sale of all kinds of accessories is limited. A purchaser, having bought a car which has no bulb horn, as required by law, installs such a horn and then considers that his car is completely equipped.

If accessories such as bumpers are not included as standard equipment, the purchaser feels that that car does not require bumpers, and accordingly they are not purchased.

There is a small demand for luggage carriers, mirrors, tire gauges, seat covers, electric windshield wipers, and a few cheap novelties and a somewhat more important demand for necessary tool accessories, such as jacks and tire pumps.

Cold-weather accessories are not needed. License plates are not changed annually, each car when it is first sold being assigned a number which it keeps throughout its life. This number the owner must paint on a metal plate or on the body of the car.

The French import tariff on most kinds of accessories is protective, and, other things being equal, the consumer prefers French accessories.

American car manufacturers try to induce their dealers to stock their accessories. Certain tools and replacements are designed for use with certain makes of cars. Occasionally a dealer sees an American accessory advertised which strikes his fancy and he orders a small quantity. For this reason about one-half of the accessories used in Martinique come from the United States.

Among American accessories imported are: Electric horns, jacks, luggage carriers, mirrors, tire pumps, and electric windshield cleaners. Bulb horns, for which the sale is fairly large, come from France, as do the greater part of the jacks, tire gauges, and seat covers.

Accessories are marketed in the same way as replacement parts and are sold on similar terms.

It is possible that a small trade in nonmechanical novelty accessories might be built up through department stores to appeal to the feminine population. It might also be possible that the services of an indent agent could be profitably employed in introducing new types of accessories in this market.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are only three garages in Martinique which have any equipment except the ordinary mechanics' set of hand tools, a forge, an anvil, and a rheostat connection with the city lighting system for charging batteries.

There is one air compressor and only one cylinder-boring machine and one vulcanizing apparatus.

The three garages mentioned offer little in the way of service, and car operators look after their own water, air, lubrication, washing, and tire repairs. Mechanics are generally lacking in skill and training. The service station is unknown. Gasoline is dispensed from roadside pumps, rented or sold by the agents of the various oil companies. Garage owners are generally satisfied with their equipment.

The same factors which promote the sale of American parts and accessories work for the sale of American garage equipment but with less force. The best-equipped garage on the island uses French equipment entirely. Perhaps 25 per cent of the equipment in Martinique is American in origin.

The demand for garage equipment hardly justifies the visit of traveling representatives. The employment of a local indent agent who would take orders for single pieces of equipment might result in some sales.

The world-wide business depression is being felt in Martinique, and credit has become more difficult. The market for rum, the source of the greater part of the island's income, is weak and uncertain, and important losses have been suffered by dealers and distillers.

#### GADELOUPE

Motor-vehicle registrations in Guadeloupe as of January 1, 1931: 1,170 passenger cars, 130 busses, 130 trucks, and 150 motor cycles.

Guadeloupe is slightly larger than Martinique, but its prosperity is not so great, and its standard of living is lower, with the result that fewer automobiles are in use, and price is a more important factor in their choice.

The French protective tariff and popular preference favor the use of French merchandise, and the outlet for American parts, accessories, and equipment is in general limited to those articles which are designed for use with certain makes of cars and are marketed by the car manufacturers, those whose superiority over similar French products has been demonstrated, and an occasional advertised article which strikes the importer's fancy.

Distribution conditions are similar to those in Martinique, with possibly a little more small jobbing because of the distance between Basse Terre and the commercial center, Pointe a Pitre. Sales are made on similar terms.

Exporters should exercise great caution at present in granting credit in Guadeloupe as in Martinique.

#### GUATEMALA

**Demand for Replacement Parts Good; Accessories Slow, Service Appliances Growing—American Participation Practically 100 Per Cent in All Lines**

*Assistant Trade Commissioner J. E. Dyer, Guatemala City*

Motor-vehicle registrations as of January 1, 1931: 2,038 passenger cars, 56 busses, 755 trucks, and 225 motor cycles.

Within the last five or six years, considerable progress has been made in modernizing all branches of the local automotive trade and affiliated lines. Particularly noteworthy is the improvement in service-station equipment and service. Garage facilities and repair work still leave much to be desired, but some improvement can be seen. The principal deficiency of the garages is not due to lack of proper equipment but to a shortage of competent and trained personnel.

There are only about 5.5 miles of paved road in the Republic, and these are in Guatemala City. By far the greater portion of the capital and all the other cities still have cobblestone and flagstone streets. Many of these are practically impassable at times. Replacements of such parts as springs, tie rods, crank cases, and differential

housings run high. Owing to the constant vibration and jolting there is considerable crystallization of steering knuckles, driving axles, and other parts subject to more or less severe strain. Wood framing in the bodies is subject to rot and decay because of the excessive moisture during the wet season. This is particularly true of doorframes, corner posts, and sills. Finishes also deteriorate rapidly, owing to climatic conditions.

#### REPLACEMENT PARTS

The parts business increased about 35 per cent during the first six months of 1930 over imports for the corresponding period of 1929. Automobile owners are reconditioning their cars and keeping them in service instead of buying new models.

Springs are by far the greatest single replacement item required, owing to the present condition of the highways, and automobile manufacturers would do well to study the conditions in Guatemala as they affect automobile springs, and possibly add one or two leaves to give the springs additional strength. The parts next most in demand are bolts, hub caps, universal joints, muffler assemblies, steering knuckles, gears, brake lining, and clutch facings. Such items as pinions, drive shafts, bushings, piston rings, spark plugs, stampings (principally fenders), flywheel gears, crank case and differential housings, running-board matting and beading, fan belts, and distributor parts are next in importance, followed by bearings (plain, ball, and roller), valves, piston pins, shims, generator parts, starting motor parts, carburetor parts, gaskets, rims, and rim parts.

It will be noted that few engine parts are repaired, the majority being for the chassis and body. Motors have little wear, since road conditions do not permit high speeds. Bodies and chassis, on the other hand, are subject to constant abuse by the highways.

There is practically no competition to American parts. Items in most cases are carried by the agency handling the various makes of cars. In many cases stocks are inadequate, and it often becomes necessary to lay up a damaged car while the needed parts are brought from the factory. With two or three exceptions, dealers are not in a position to render proper service and maintenance facilities on the cars they handle.

Some few replacement parts, produced by independent manufacturers, are stocked by the better service stations, which are also the leading accessory firms. These items are, as a rule, springs, brake lining, clutch facing, radiator caps, fan belts, piston rings, and others, the use of which is not necessarily limited to any one make of car. Stocks of this type that are carried must have a rather steady demand.

The principal service station in Guatemala City carries what is said to be the largest stock of springs, fan belts, cylinder head, and intake and exhaust gaskets of any other dealer in the country. This is easily understandable, as these replacements must be stocked for many makes, whereas the automobile dealer carries only the stock required for his different models.

The usual terms for parts, when bought from the manufacturer, are cash with order or irrevocable letter of credit. When purchases

are made, whether direct from the independent makers or through an export house, the terms are as a rule 30 to 90 days sight draft, with interest at 6 per cent.

Local automotive dealers do little advertising for their products, such activity being confined to spasmodic newspaper announcements.

#### ACCESSORIES

The accessory business has shown a considerable decline. This may be attributed in part to the many accessories which are included on a new car as standard equipment. The same tendency is also forcing automobile dealers into the accessory field, as in case of replacements the car owner expects to be able to buy the corresponding accessory from the dealer who sold the car.

American manufacturers furnish between 96 and 98 per cent of all accessories sold in Guatemala. There is no local manufacture. On several occasions European goods have been introduced, but these have met with small demand.

Headlights and rear and stop lights have a good turnover, although parking lights are not much in demand. Lamp lenses, rear-view mirrors, tire pumps, tire gauges, and electric and vacuum windshield wipers have a fairly good acceptance, though hand windshield cleaners are not demanded. Some shock absorbers and taximeters are sold, but the demand is small and irregular. Items such as bumpers, nonskid chains, heat indicators, theft-proof locks, luggage carriers, trunk racks, seat covers, windshield visors and wings, and novelties have a very small demand. There is no importation of hood or radiator covers, glare eliminators, body hoists, lubricating systems, radiator shutters or shields, speedometers, or car heaters.

There are no accessory wholesalers, each dealer importing for his own account from the manufacturer or through export agents in the United States. Dealers are not as a rule agents for the products they sell, and in many cases they stock competitive lines.

The usual terms granted importers of accessories are 30 to 90 days' sight draft, depending on the responsibility and credit standing of the individual, with interest charges of 6 per cent.

#### GARAGE AND SERVICE-STATION EQUIPMENT

American products are used in this field exclusively with the exception of driving motors for power equipment, which are sometimes Swiss or German. No equipment is made locally, and European competition is a negligible factor. Both service stations and garages are fairly well equipped and the better shops have all needed apparatus. In fact, the present investment is far greater than is warranted by the amount of business available.

Mechanical equipment has enjoyed a fair acceptance in spite of the fact that labor, though in most cases unskilled and inefficient, is cheap and that electric current is high. There is a minimum charge on motors of \$4 per horsepower. This entitles the user to 70 kilowatt-hours of current. The next 100 kilowatt-hours are charged at 5 cents, and thereafter the rate becomes 2 cents per kilowatt-hour.

Many of the garages and one or two of the larger accessory businesses are conducted by automobile dealers, though there are also a number of independent operators. Practically all garages and service stations have more or less complete equipment as regards hand tools, portable drills, bench grinders, oil and grease guns, air compressors, and gasoline and oil dispensing pumps.

There are many installations of battery-charging equipment, but only three or four firms who do competent repair work.

No cranes are in use, but there are many chain hoists and blocks. The majority of the larger places have one or more hydraulic garage jacks. The largest service station and accessory dealer uses six.

The three better service stations have special equipment for changing tires. All employ mechanically operated tools, and one has in addition air-operated equipment. These establishments get the bulk of the tire work.

Several automatic and semiautomatic valve grinders and refacers are in use, as well as a number of welding outfits, both acetylene and arc.

Four establishments have fairly complete paint-spraying equipment, though a number are attempting to turn out paint jobs with small electric hand sprays.

Most garage and service-station equipment, with the exception of motors, portable drills, hand tools, air compressors, and gasoline and oil-distributing pumps, are sold either through export houses in the United States or local commission agents. The majority of the motors and portable drills are sold by the local light and power company. Air compressors are carried in stock by several machinery houses, and hand tools are sold by most hardware stores.

## HAITI

### Replacement Parts Demand Good, With Accessories and Service Appliances Restricted—American Participation Predominates

Consul Donald R. Heath, Port au Prince

Motor-vehicle registrations as of January 1, 1931: 2,384 passenger cars, 277 busses, 371 trucks, and 42 motor cycles.

The marked economic depression resulting from the decrease in the price of coffee, Haiti's chief crop, and other tropical products, which has prevailed over a period of 18 months, has caused considerable change and diminution in importations and sales of motor vehicles, parts, accessories, and garage equipment. Prior to this period there was a steady increase in such imports. Practically all automotive vehicles and equipment (with the exception of some French and English tires) are of American manufacture.

### REPLACEMENT PARTS

Owing to bad highway conditions in Haiti and to the fact that the majority of native owners and chauffeurs are inclined to be rather reckless drivers, replacement parts are in considerable demand, especially such articles as bearings, brake linings, bushings, driving and timing chains, fan belts, spark plugs, springs, valves,



radiator caps, pistons, piston rings and pins, body upholstery materials, gears, and generators.

No parts or accessories are manufactured locally, with the exception of a battery which is produced by one of the leading automobile dealers, and bodies for trucks, busses, and occasionally cars, which are turned out by two local firms.

Parts are stocked by each of the four firms with garages which hold the national agencies for various American motor cars, and their stocks are complete. The subagents in other parts of Haiti and two garages and the one specific accessory dealer in Port au Prince also carry stocks of the more usual replacement parts, but these are limited.

Port au Prince is the principal city and chief distributing point for the entire country. All the local garages maintain branches or subagencies in the larger towns, such as Cape Haitien, Gonaives, St. Marc, Jacmel, Aux Cayes, and Jeremie. Practically all parts and accessories are imported through Port au Prince, whence they are distributed to the subagents throughout the country.

Motor-car representatives usually get their parts from the automobile manufacturer they represent, but occasionally they order from jobbers in the United States. A very few garage and accessory dealers import some parts independently, usually from American jobbers.

Advertising of parts is carried on by local dealers through showcase exhibitions and by literature and small signs supplied by the manufacturers. Newspaper advertising is employed also, but only as regards the vehicles represented. Itemized lists of parts carried are not inserted in the newspapers.

#### ACCESSORIES

The local demand for automobile accessories is very much restricted owing to the fact that there are comparatively few motor vehicles in the country and on account of the present economic depression, which has affected the already low purchasing power of the people.

The principal demand comprises such articles as tire covers; jacks; head, rear, stop, and parking lights; tire gauges; seat covers; and novelties. In the case of jacks, the hand jacks are more widely used than mechanical ones, owing to the fact that both chauffeurs and labor are cheap and, in the case of the latter, very abundant. In the case of tire trouble the stopping of a car will nearly always attract immediately onlookers who for a few cents are willing to help.

Such articles as car heaters, heat indicators, hood and radiator covers, and taximeters are not used. Very few cars are equipped with glare eliminators. There is no market for taximeters as Haitian taxis make a flat rate or hourly charge. There is no indication of an early change in the taximeter situation.

There are only a few independent garages dealing in accessories and one specific accessory shop. These dealers occasionally import direct from the manufacturer but usually through American jobbers. Stocks are maintained at a minimum by distributors because the majority of cars imported carry most of the articles of standard equipment, and by dealers on account of economic conditions.

## GARAGE AND SERVICE-STATION EQUIPMENT

Only in the six relatively large garages in Port au Prince and in a few garages in the larger towns are there adequate and efficient automobile-service facilities available. There are numerous repair shops in Port au Prince and other cities, but in general the service rendered and the quality of the work is inferior.

The large garages, especially those maintained by distributors, obtain the bulk of repair work and employ the best mechanics. The many small garages have arisen as a result of an employee, after having become fairly efficient as a mechanic in one of the large garages or repair shops, opening a small shop on his own. The volume of business done is naturally small, due to the limited capital, which prevents purchasing of necessary equipment and also determines the number of employees, with the result that the owner must necessarily do the work himself.

Among the most needed articles of equipment are battery chargers, auto lifts, brake-testing machines, portable drills, reamers, tire-repairing machines, valve grinders, welding outfits, wheel-alignment equipment, and high-pressure chassis lubrication and grease-dispensing systems.

Two large garages and one of the government garages are completely equipped, while the other garages and repair shops have some modern articles installed. Only the larger garages operate their equipment with electric current. The cost of such current and the more expensive equipment is above the means of the smaller repair shop.

Only two large garages have mechanical tire-changing equipment. One independent repair shop, which does vulcanizing and electric welding, also has mechanical tire-changing equipment. A large part of the tire repairing is done both in repair shops and the five large garages.

Practically all equipment used locally, including the garages of the various departments of the Haitian Government, is of American manufacture. There is no domestic production.

The principal garages nearly always purchase their equipment direct, as does the Haitian Government, which has a purchasing agent in New York City. At present there is but one local firm which specializes exclusively in the importation of machinery, and its volume of business is very small. One local firm handling miscellaneous lines has the representation of an American manufacturer of certain garage equipment. Manufacturers desiring to introduce their products in Haiti should get in touch direct with the managers of the five principal garages and the purchasing agents of the various departments of the Haitian Government operating garages.

## HONDURAS

**Replacement Parts Market Good in View of Small Number of Motor-Vehicle Registrations; Accessory Demand Small; Growth of Service-Station Installations Limited by Size of the Market—American Products Predominant**

Vice Consul E. Austin Aclý, Tegucigalpa; Vice Consul T. Monroe Fisher, Tela; Vice Consul Lawrence F. Cotta, Puerto Castilla; Vice Consul Thomas C. Watson, Puerto Cortes; Vice Consul Warren C. Stewart, La Ceiba

Motor-vehicle registrations as of January 1, 1931: 737 passenger cars, 81 busses, 289 trucks, and 15 motor cycles.

The study of the market for replacement parts, accessories, and garage and service-station equipment in Honduras is presented here-with by consular districts, based on reports submitted from Tegucigalpa, the capital, La Ceiba, Puerto Castilla, Tela, and Puerto Cortes. A summary of the whole of Honduras is also included.

## TELA

There has been a slight increase in the market for replacement parts in the Tela consular district during the past few years. However, the demand for such equipment is small, owing to the limited number of motor vehicles in use, there being but 73 passenger cars, 2 busses, and 27 trucks as of January 1, 1931.

The market will not develop to any great extent until there is a considerable increase in the mileage of improved roads for motor use. At the present time there are only about 10 miles of suitable road in the entire Tela consular district.

Practically all replacement parts are in demand, and all that are in use are of American manufacture.

The majority of parts in use in this district are purchased through automobile dealers in San Pedro Sula, which is in the Puerto Cortes consular district and is the second city of importance in the country as well as a distributing center for the northern coast.

The only firm selling parts in this district is a distributor of a well-known low-priced American car, who handles parts only for the machine distributed.

The most effective advertising is by wall placards and posters for use in hotels, restaurants, etc.

## ACCESSORIES

The accessory demand is naturally limited in view of the small number of cars in use. Those most used include electric horns, hand and mechanical jacks, lamp lenses, lights, rear-view mirrors, tire pumps, gauges, seat covers, and wind-shield cleaners.

Accessories are marketed by automobile dealers who purchase for their own account. Stocks are not generally carried, and competitive lines are not usually handled by the same company. Present distribution channels cover the market adequately.

All accessories in use and for sale are of American manufacture. The usual terms in this trade are cash in advance.

## GARAGE EQUIPMENT

There are no public garages or service stations in the Tela consular district, and there are no adequate automobile service facilities afforded. Privately owned cars are serviced by chauffeurs and mechanics. All equipment in use is of American manufacture, as there is no foreign or domestic competition.

The chief restriction to the use of mechanical equipment is the small number of motor vehicles. Tires are changed by hand tools. Tire repairing is done by owners of cars or chauffeurs.

The logic distributing center in San Pedro Sula. The best selling method is through automobile dealers, and the best terms are cash.

## PUERTO CASTILLA

In the consular district of Puerto Castilla there are but four trucks and six passenger cars; consequently there is no market nor dealers for replacement parts, accessories, or garage equipment.

## LA CEIBA

La Ceiba has a population of approximately 10,000 and is in the center of a narrow coastal plain extending from Puerto Castilla to Tela. There is much talk of building a highway from La Ceiba to Tegucigalpa, the capital, but economic conditions are such that actual construction appears to be impossible with domestic capital. There are many obstacles to the present construction of a highway with its resultant expansion in the demand for motor cars and equipment. Until these obstacles are overcome, the demand for all these products will be limited to an approximate maximum of 150 cars, with parts, accessories, and service therefor. The market for replacement parts is definitely limited by the small number of automobiles.

American companies manufacture all cars and accessories sold here, distribution of replacement parts is effected by one local dealer in Ceiba, who orders direct from American automobile firms and pays cash with each order. There is no domestic or foreign competition.

Parts in demand include ball and roller bearings, bolts, bushings, fan belts, spark plugs, valves, piston rings, piston pins, and gears.

## ACCESSORIES

Accessory demand is extremely limited, and these articles are marketed by one local dealer. Stocks are carried in a limited quantity by this dealer, who covers the market adequately at present. He orders directly from American automobile firms.

Certain items of accessories are not used in this district; these include nonskid chains, parking and stop lights, radiator shutters, taximeters, and car heaters. Accessories enjoying some demand include electric horns, hand jacks, lenses, rear and head lights, and tire pumps. The one dealer in accessories has two car agencies, a garage, and service station.

## GARAGE AND SERVICE-STATION EQUIPMENT

This territory has one service station and garage, modernly equipped, which adequately serves all necessary purposes. The proprietor was trained in an automobile school in the United States.

All equipment in use is of American manufacture, there being no foreign competition nor any domestic production. No restrictions are placed on the use of mechanical equipment. Electric current is generally available on an economical basis. The garage uses the mechanical method of changing tires. Probably half of the tire changing is done by hand by individual operators of cars.

## PUERTO CORTES

The consular district of Puerto Cortes offers a restricted market for replacement parts, owing to the small number of motor vehicles, of which there are only about 400. There are approximately 200 miles of roads which are for the most part nothing more than graded tracks, impassable during the rainy season, which exists for six months of the year. These routes are in and about San Pedro Sula, the commercial center of this section of Honduras.

The life of a motor vehicle under the existing poor highways is short. Dealers state that there is a demand for all replacement parts for trucks and passenger cars, particularly for springs and electrical spare parts. With the exception of two trucks, all motor vehicles are of American origin, and replacement parts for these come from the United States.

The sole channel of distribution is through the automobile dealers. There are two garages in San Pedro Sula, but each of these purchases, or rather the owner of the car being repaired purchases, all of the special parts from the dealer. Replacement parts are sold for cash.

Two agents of American cars pay cash for the parts which they purchase. The financial standing of the automobile dealers in San Pedro Sula is such that it would be unwise to extend credit.

There is very little competition in the trade for replacement parts. The agents for each car carry the parts for their vehicles. There is no domestic or foreign competition. San Pedro Sula is the sole distributing center, all of the automobile dealers in the district being located there.

## ACCESSORIES

There is a relatively good demand for certain accessories, due to the hard service received by cars and trucks.

Accessories most in demand are bumpers, nonskid chains, which are hardly ever dispensed with in the wet season, electric horns, hand jacks, lamp lenses, tire pumps, shock absorbers, and tire gauges.

There is no competition from foreign or domestic manufacturers in automobile accessories, which are imported by the automobile dealers and sold at retail to owners of motor vehicles. Small stocks are carried. A dealer may carry two or three competitive lines of some quick-selling accessory, such as nonskid chains. The market is adequately covered by the present distribution channels.

It is believed that all American exporters of accessories would do well to require cash against documents, at least until business conditions improve.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There has been no recent progress in providing adequate service facilities in this territory. The small number of motor vehicles hardly warrants a large investment in any such enterprise. There are no properly trained mechanics engaged in the repair of automobiles. The two garages in San Pedro Sula are run by their owners, and their equipment is poor. The automobile dealers have repair shops attached to their showrooms.

The equipment most in demand includes air compressors, auto lifts, battery chargers, car washers, garage tools, oil and grease guns, portable drills, reamers, tire-repairing machines, etc. The principal reason which restricts the more extensive use of mechanical equipment is that there are no first-class garages. Electric current is available but is very expensive in San Pedro Sula, the price being 15 to 20 cents per kilowatt-hour.

The use of hand tools predominates in changing tires, and most of this work is done on the road.

Automobiles are generally run until they are past the repair stage, and then new cars are purchased. The life of a motor vehicle is stated to be about two years and that of tires from 2,000 to 4,000 miles.

All of the automobile dealers operate garages. They are all located in San Pedro Sula.

#### TEGUCIGALPA

The demand for parts in the Tegucigalpa consular district has increased gradually with the added number of automotive vehicles in use. The lack of good roads is largely responsible for the fact that up to the present time motor vehicles are not widely used. There are slightly more than 500 automotive vehicles now in operation, about 350 being passenger cars. However, the per car consumption of replacement parts is rather high, because of the roughness of the roads and the steep grades.

There is particularly good demand for such items as bolts, brake lining, clutch facing, springs, gears, drive shafts, auto frames, and wheel parts, which break frequently.

Practically all parts are of American manufacture. There are no domestic operations, and foreign competition is small. Distribution is practically all carried out by three firms, each of which maintains a garage and has the agency for one or more well-known makes of American automobiles. One operates the largest transportation company in the district, and two have accessory stores in connection with their garages.

The terms usually offered to distributors are 60 days sight or a 2 per cent discount for cash against documents.

Tegucigalpa is the only distributing center for automobile parts in this district. Most of the cars in use have their headquarters in this city, and the roads to the rural parts are so bad that cars rarely

ventures from the main highways even in the dry season. In the rainy season most of the roads are passable only for mules and ox-carts.

There are few methods of advertising in this community, but it is believed that American manufacturers should furnish assistance to the distributors in their advertising programs. There are several newspapers published in this city, all of which are good advertising media. There is also a radio station which accepts advertising. It is also possible to arrange for special announcements in the local motion-picture theaters, of which there are two.

#### ACCESSORIES

Due to the slightly increased number of automotive vehicles in use in this district the actual demand for accessories has improved. However, it is believed that the demand for cars is falling off because of the complete equipment now included on new cars.

There is a good demand for trunk and luggage racks, because of the fact that there are no railroads by which baggage may be sent. There is also a demand for novelties. Such items as hood and radiator covers, shutters, and car heaters are never used because of the warm climate. Bulb horns, theft-proof locks, shock absorbers, and taximeters are never sold. The government does not supply number plates, so all of these used are made by the individual car owners.

The three firms mentioned as the distributors for parts are also the only distributors of accessories. They generally buy directly from the manufacturers in the United States and sell directly to the consumers. All three of the local dealers carry stocks and occasionally handle competitive lines. In some cases their sales agreements will not permit this, but such agreements are not looked upon with favor by the dealers and are entered upon only when it is necessary to secure the representation for some particularly desirable product.

It is believed that the present method of distribution is the most satisfactory one that could be arranged in this territory.

Terms to dealers are usually the same with accessories as with replacement parts: 60 days sight or 2 per cent discount for cash against documents. These terms are, of course, varied in accordance with the standing of the firm in question.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Considerable progress has been made in providing satisfactory service facilities in Tegucigalpa. The three automobile dealers maintain a garage each, two of which are modern and well equipped. One garage has installed a complete machine shop, which is fitted to do all kinds of repair work and welding. In the rural districts there are no garages, but there are very few automobiles, and their owners are usually mechanical enough to do their own repair work. The mechanics employed by local garages are not well trained. However, they are the best that can be had in this country.

The main reason for the restricted use of mechanical equipment in this district is the fact that labor is extremely cheap. Electric current is available but at a rather high price. The principal garage maintains a large Diesel generating plant of its own.

About half of the tire changing is done by hand, with the exception of the changing of solid tires, which are placed on the rims by means of large power-driven presses. The repairing of pneumatic tires is done in repair shops in Tegucigalpa if the financial condition of the car owner permits him to carry a spare or if more than one flat tire does not occur on the same trip. Otherwise the tire must be repaired on the road.

American equipment is used practically entirely in the garages in Tegucigalpa. One German Diesel engine is the only piece of foreign machinery noticed. There is no equipment manufactured in Honduras nor is there any prospect of its manufacture in the near future.

In the absence of American traveling representatives, the most satisfactory method of distribution would be through a commission agent. Inasmuch as a large number of American concerns send direct representatives to this district at present, and in view of the limited market possibilities, it is believed that the present methods of distribution are the most satisfactory that can be arranged.

Sixty days sight are the usual terms granted to the firms at present engaged in this business. If other firms enter the market, it is suggested that transactions be limited to cash against documents until the credit standing of the firm is established.

Attention is invited to the fact that a great many firms in this district have difficulty in securing dollar drafts for remittance to the United States because of the fact that the banks only very rarely sell dollar drafts for silver pesos, the most common circulating medium of the country. Dollar exchange must generally be bought up in small quantities from individuals who have checks on American banks.

Tegucigalpa is not only the principal distributing center of this district for garage and service-station equipment, but it also has the only garages which would be in a position to install mechanical equipment.

#### SUMMARY

The preceding reports note that the main reason throughout Honduras for the limited use of automotive vehicles is the fact that roads are uniformly bad.

American replacement parts enjoy great popularity and are generally demanded by car owners.

The demand for automobile accessories is apparently slowly increasing, and American products are most popular and enjoy almost universal use throughout the country. The only foreign products seen are in the southern part of the country, where communication with the United States is slightly more difficult than in the northern part.

Accessories are generally sold in all parts of the country by dealers who buy on their own account and sell directly to the automobile owners. They usually carry small stock.



There are modern and well-equipped garages in Tegucigalpa and in La Ceiba, but throughout the rest of the country there seem to me no adequate repair and service facilities. In most parts of Honduras the mechanics are not experienced and are generally without the proper equipment for doing satisfactory work. There are too few cars in use to make any extensive installations for repair work profitable.

As in the case of parts and accessories, United States products are used almost entirely in garages and service stations. There is no domestic manufacture and an extremely limited amount of foreign competition.

The volume of possible business is not believed to warrant large additional expenditures for garage and service-station equipment. The demand consists mostly of purchases of equipment to replace that which is worn out, with an occasional new item being bought which the owner of the garage believes will pay for itself even in view of the small volume of business.

Electricity is available in most cities of the Republic, but it is usually too expensive to make its use profitable in garages and service stations.

There are two logical distribution areas in Honduras—the northern coast and the Tegucigalpa consular district, which comprises the central and southern parts of the country. Distribution of automobile parts and accessories is at the present time carried on in the most logical manner possible. Tegucigalpa is the center for distribution in the central and southern parts of the country, and San Pedro Sul, the second city in importance, is the distributing center for the northern coast. These two districts are separated by lack of communication facilities, goods being shipped to the north coast direct from the United States and those shipped to the Tegucigalpa district being routed by way of the Panama Canal and the Pacific Ocean.

In Tegucigalpa and La Ceiba tire changing is often done by mechanical methods, but throughout the other parts of the country tires are changed with hand tools.

In the absence of direct traveling representatives, the best selling method would be through manufacturers' agents, the volume of business in garage and service-station equipment being too small to enable wholesalers and jobbers to carry the goods profitably. Fortunately, a large number of American manufacturers of this kind of equipment send traveling representatives to Honduras. In addition to this, garage owners frequently order directly from the United States from catalogues.

Except in the case of firms with established reputations, it is suggested that transactions be limited to cash.

## MEXICO

**Demand for Replacement Parts Growing, Accessories Declining, Service Appliance Demand Poor—American Participation Practically 100 Per Cent in All Items**

Assistant Trade Commissioner Edward D. McLaughlin, Mexico City

Motor-vehicle registrations as of January 1, 1931: 59,500 passenger cars, 4,800 busses, 16,500 trucks, and 675 motor cycles.

During the course of the past five years the total number of automotive vehicles in Mexico has practically doubled. Each class of vehicle has increased in about the same proportion as the gain in total registration.

The majority of the motor vehicles are concentrated in the Federal District. On account of the concentration of wealth and the higher purchasing power in the capital, there are found in this vicinity probably 95 per cent of the country's registrations of high-priced cars and from 85 to 90 per cent of the medium-priced cars. The great majority of cars and trucks in country districts are of the low-priced groups.

It should also be kept in mind that in the outlying districts replacements are far heavier per car than in the metropolitan section. Tire dealers estimate that the owner getting three or four months' wear out of a set of tires running over country roads is doing very well. Moving motor parts, as well as fixed parts of frame and body, are more frequent items of replacement. Accessory and parts dealers estimate that cars used on Mexican country roads require from 25 to 30 per cent more in the way of replacements than the cars of Mexico City.

Another point to consider is the general economic and business condition of the country. Mexico, like practically every other country, has been working under decidedly depressed business conditions. World prices of basic metals have been lower during recent years than in a long time past. Petroleum, another of the country's main supports, has been low. Agriculture and ranching have been adversely affected. The serious decline of the Mexican silver peso has also affected Mexico's purchasing power.

As is usual in times of restricted buying, dealers are experiencing great difficulty in meeting expenses. Through price cutting and special rebates some have endeavored to keep going and to obtain an advantage over competitors. Others have tried to keep up their sales volume at the expense of collections and as a result have large amounts outstanding, representing poor accounts. Some territories, formerly well covered by travelers in good times, have been abandoned because it did not pay to work them under conditions prevalent the past year.

Dealers have, on the whole, been reluctant to take on additional lines. There is a decided trend, noticeable among the leading importers and jobbers, to handle only lines which are well known and well advertised. The manufacturer who expects to place in the Mexican market a line not already known and without the use of much and well-placed advertising will not meet with success. He may, of course, reduce prices far below those of already established com-

petitors, but even that will not be productive of immediate and worthwhile results in the general run of cases.

Another factor which has tended to disorganize the parts and accessory trade has been the selling policy of manufacturers' agents. In this they are said to have been assisted by a number of manufacturers who seemed more interested in getting into the market than in the method used and its results. In Mexico City there are probably six or seven leading jobbers, few of whom have factory connections. They buy in the open market from the 10 or 12 factory representatives. By far the larger portion of the business done in parts, accessories, and garage and service equipment in and about Mexico City is handled by these larger jobbers, some of whom cover the entire Republic by their salesmen. Many of the factory representatives who sell to these jobbers and distributors have sold at the same discounts to dealers who should normally be the customer of the jobber. The result has been that this jobber and distributor business has been gradually placed in the hands of those representatives who are careful to distinguish between distributors and small dealers. The other factory representatives, who have been slowly put to one side by the largest single buyers, have been seeking business among the smaller dealers and mechanics. The manufacturing principals of these agents have been experiencing heavy credit losses as a result. Few of the manufacturers' agents are competent to pass upon credits, even if inclined to do so in the interest of their principals.

In spite of losses incurred, chiefly through poor local representation, manufacturers still contrive to place their agencies with unreliable agents. The latter are generally willing to take on any account which they can succeed in working for a short time and then turn it back to the manufacturer with a sheaf of pending accounts. If the manufacturers and exporters of replacement parts, accessories, and garage equipment will realize the limits of the Mexican market and realize, too, that only the best and most reliable agent can obtain business, and at the same time protect him from disproportionate credit losses, then procedure in accordance with that understanding will do much to bring about a more orderly situation in this market.

#### REPLACEMENT PARTS

Despite economic conditions, the Mexican market for parts over a period of the last five years has been a growing one, although the parts business has not shared proportionately in the increase in registrations, owing largely to adverse economic conditions and also to the fact that the more modern cars require less in the way of replacements. Especially has this been true during the last few years, since this period has seen a remarkable increase in improved highways.

The items in chief demand include plain, ball, or roller bearings, bolts, brake lining, clutch facing, fan belts, spark plugs, springs, valves, radiator caps, piston rings, gears and pinions, drive shafts, axles, rims, and rim parts.

Replacement parts are practically all of American origin. There is no foreign competition, and very little domestic manufacture exists except in batteries, paints, springs, and bumpers.

It can not be said that batteries are manufactured in Mexico, yet there are several organizations assembling a local product from materials imported from the United States. Automobile and truck springs are produced in several small plants, both in Mexico City and Monterrey, although the greater part of the business is in the hands of a large manufacturer of bumpers, springs, and other iron and steel products whose firm is located in Mexico City.

While these lines are the only ones in which local competition is to be met at present, it should be understood that any line lending itself to local manufacture may suddenly be faced with increased Mexican duties and native competition.

Domestic manufacturers offer no special inducement to the trade. Their prices are equal to the prices of American manufactures plus transportation costs and duties. As a rule, prices are maintained at this level. Credit terms are in general the same as those extended

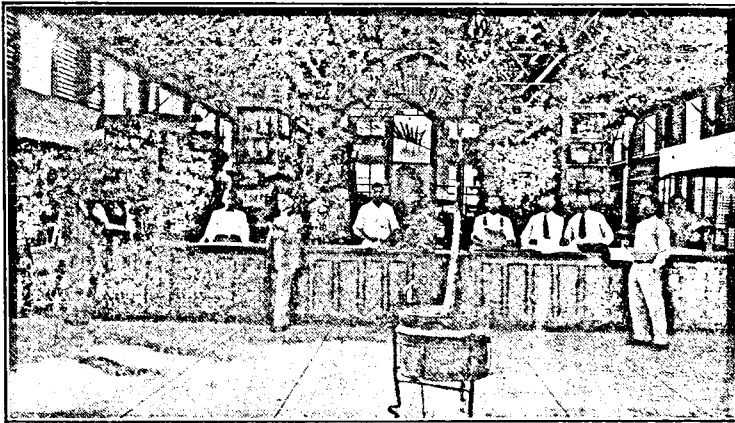


Figure 16.—American-made parts and accessories are sold in this store at Camaguey, Mexico

by American manufacturers, although the local producer is generally working under a limited capital and is less prone to give extended credit than are many of the American manufacturers.

Leading channels of distribution are through the importing and jobbing houses specializing in automotive replacements and accessories, which usually handle both parts and accessories, some carrying garage and service equipment.

There has been a decided trend on the part of automobile dealers to carry more or less complete lines of replacements covering the cars which they distribute. This they do, not so much to supply the retail trade as to enable their service departments and subdealers to effect efficient servicing. Dealers, as a rule, carry only the standard replacement parts for their lines, such as gears and pinions, bearings, axles, valves and pistons, and wheel parts. The bulk of the business is, as above stated, carried on by leading distributors specializing in replacement parts and accessories. This arrangement, it is felt, will continue, inasmuch as dealers are not anxious to increase the amount of stock which they must necessarily carry, and because the import-

ing jobbers may keep abreast of new market demands and at the same time are free to buy in the open market.

Manufacturers are offering to their Mexican distributors the maximum discounts offered to domestic jobbers and in many cases a slight additional discount to take care of the large distribution costs in the Mexican market.

Leading trade journals and Mexico City papers are the most used advertising media.

#### ACCESSORIES

Owing chiefly to economic conditions, the demand for accessories has been persistently falling off. Unlike replacement parts, accessories are looked upon as luxuries, and, therefore, are little in demand.

The accessories most used are bumpers, nonskid chains, tire covers, electric horns, hand jacks, theft-proof locks, tire pumps, and tire gauges. Car tools are likewise rather high in the list. Such articles as lend themselves particularly to the petty thievery are in considerable demand, such as tires, tools, locks, front and parking lamps, radiator caps, and gas-tank caps. A car owner may lose his complete front headlight and buy it back the next day at one of the numerous "thieves' markets" for the sum of two or three pesos. The prevalence of petty thievery boosts considerably the market possibilities of such articles as theft-proof locks and radiator and gas-tank caps.

American accessories supply 100 per cent of the demand, with the exception of such items as license plates, seat covers, and bumpers, which are manufactured locally.

Accessories are marketed exactly the same as replacement parts, with the exception, of course, that automotive dealers do not carry accessory lines. This concentrates the accessory business in the hands of the leading jobbers and manufacturers' agents. The latter sell not only to the importing and jobbing houses but have been in the past selling to the small dealers operating corner accessory and replacement parts stores. By far the larger part of the distribution is through the larger, well-established jobbers. The best method for the American manufacturer is to confine his sales to the larger jobbers or manufacturers' agents. Small stocks of accessories are usually carried and competitive lines handled by the same company.

The usual terms in the accessory trade are again in general those extended by manufacturers to the domestic American trade, with slight increases to take care of higher distribution costs of the Mexican market.

Accessory dealers carry the principal stocks, although some of the larger garages and service stations have a limited display of the more popular items.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Mexico furnishes a poor market under present conditions for garage and service-station equipment. While there are a number of garages in the Republic thoroughly equipped to give all necessary service, the majority are small, poorly equipped establishments, operated by a mechanic and his helper.

The garages and repair stations maintained by automotive distributors and dealers are equipped and organized to supply at least the minimum service requirements exacted by the automobile manufacturers whose agencies they hold. There is, of course, considerable variation, both in equipment and technical skill of the mechanics.

Garage equipment most in use consists of mechanics' tools, acetylene welding outfits, battery-recharging outfits, brake-lining machines, auto lifts, wheel pullers, paint-spraying machines, etc. The larger service stations require air compressors, gasoline pumps, oil-dispensing pumps, grease guns, tire-changing machines, in some cases battery chargers, and car washers to a limited extent.

The majority of the leading distributors in Mexico City maintain shops whose equipment is fairly complete. Independent mechanics and garages, however, carry incomplete equipment and are, furthermore, not financially able to purchase much more.

There are practically 750 filling stations in the Republic of Mexico owned by the various oil companies, and in these stations there are installed approximately 1,000 gasoline pumps. The four leading oil companies erect the filling stations, install the equipment, and rent them out to operators, on the agreement, of course, that the operator retail only their gasoline and oils. It is not believed that the number of filling stations will be increased during the next year.

The equipment generally installed consists of gasoline pumps, oil pumps, grease racks, and underground tanks. Facilities for compressed air and water are also provided.

The number of new highways which are being projected should give rise to a considerable demand for pumps, compressors, etc. These highways, especially the new Mexico City-Monterrey-Laredo highway, will require considerable equipment of this nature if the necessities of the traveling public are to be satisfied. Facilities in the country for obtaining gasoline, oil, and service are crude and in most cases lacking altogether.

Under present conditions, considering the roads already in use, there is little likelihood that much will be done in the way of individual and privately owned gasoline stations; manufacturers of gasoline pumps, compressors, etc., must continue to look to the leading oil companies as their best purchasers.

Distributors and dealers of the various cars represented in the market are naturally equipped to service not only their own makes but any other cars or trucks which come into their shops. The equipment in use varies from the latest and most complete obtainable to practically nothing in the smaller shops. On the whole, however, the dealers and distributors themselves are fairly well equipped to give the necessary service. In the country districts, service as a rule is very poor. It is the practice for owners of high-priced cars to send them into Mexico City for repair, it being nothing unusual for the owner to ship his car in by railway to Mexico City for extensive overhauling and repairs when needed. Only in the shops of the larger dealers are trained repair mechanics to be found.

The dependable garages are all operated by automobile dealers. Garages conducted by mechanics doing their own work, while numerous, are not particularly popular, owing to their questionable reliability.

Practically all garage and service equipment is American. No equipment is manufactured locally with the exception of small minor tools which may be made in a hand forge or lathe for use in local shops. There is no foreign competition.

The chief reasons operating against the more extensive use of mechanical equipment is the cost factor. Laborers may be employed for garage and service-station work at prices ranging from 1 to 2 pesos per day, and it is obvious that such conditions do not warrant the investing of any considerable funds in mechanical equipment. Electric current is generally available and may be used economically for the operation of service appliances. The larger shops operating lathes, drills, etc., obtain their primary motive power from electric motors, generally rigged up to a belt and pulley system.

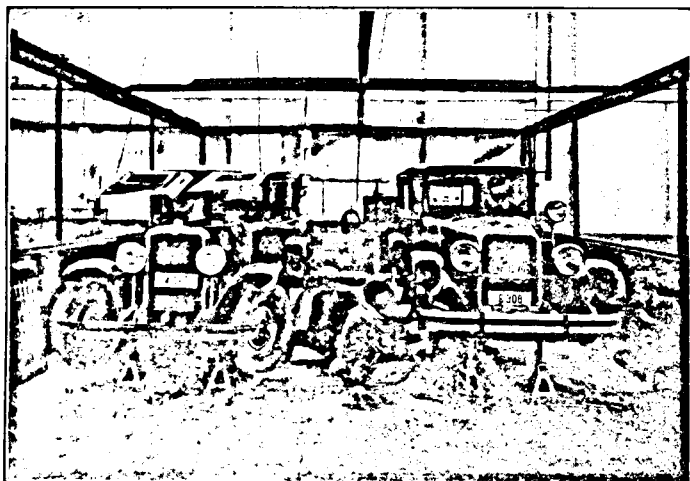


Figure 17—Brake and shock-absorber department of a service station in Mexico City

Hand tools are almost exclusively used for changing tires. Most of the larger garages and service stations, however, have mechanical tools for this purpose.

The best method of working the Mexican market is through the manufacturers' own traveling representative. However, owing to the limited market, this does not as a rule pay, and most manufacturers are represented through manufacturers' agents. The latter carry no stock and sell to the importing jobbers and many times to the smaller dealers and garages on a commission basis. It is felt that the best method of local representation is through the medium of manufacturers' agents.

Selling terms for accessories and replacement parts are practically the same as those extended in the domestic market in the United States. At times various manufacturers see fit to give additional discounts to meet the added cost of distribution or to enable a product not well known to gain a local foothold. Credit terms

covering most items range from cash against acceptance to 60 and 90 days.

The principal distribution center for garage and service equipment is Mexico City, the equipment being distributed both in the Mexico City market and the remainder of the Republic by the larger importers and jobbers of the capital. Certain sections, as in the case of replacement parts and accessories, are better covered by border jobbers, and in the case of the southern or southeastern sections may best be covered by direct correspondence from New Orleans or through a local agent, generally placed in Merida, Yucatan.

Under present conditions it is thought that expenditures which have already been made in the purchase of modern equipment are probably sufficient to cover the demands for service. Undoubtedly, however, as the new highways materialize and as the general business situation improves, the need will be felt for more and better service and garage equipment. Any increase in sales possibilities for such equipment must await the return of improved conditions.

### NETHERLAND WEST INDIES

**Demand for All Automotive Lines Considerably Reduced Owing to Depressed Condition in the Oil Refining Industry—Increased Sales Await Improved Economic Conditions**

Consul Thomas W. Voetter, Curacao, West Indies

Motor-vehicle registrations as of January 1, 1931: 1,221 passenger cars, 16 busses, 765 trucks, and 125 motor cycles.

There are several features of the automotive trade in the Netherland West Indies, which at present affect the market in all lines of parts, accessories, and garage equipment. The dominant industry is refining and shipping of petroleum, and the depressed condition of this industry generally has caused a great curtailment in the activities of the refineries, with a heavy reduction in the number of persons employed. A large proportion of these employees had been brought to the Netherland West Indies during the period of growth of the industry, and when they lost their employment they were returned to their homes, with the result that there is a noticeable loss of population in the principal islands of this group, Curacao and Aruba, with consequently a lessened use of automobiles. A considerable number of cars has also been laid up in garages.

It is not expected that commercial and industrial activities in Curacao will soon return to the level of 1930, and opinions have been expressed that the best that can reasonably be expected is that business may continue after the present depression is past on the scale it was occupying about 1925.

### REPLACEMENT PARTS

The automobile trade has shown its greatest growth in the past seven years, which coincides with the period in which the greatest improvement of roads and paving of streets has been made. It is believed that the increase of business owing to development of the oil refinery was a very great factor, possibly the principal one, in bringing about the increased number of cars in use.



Formerly there were a few European cars operating in Curacao, but these have all disappeared, and only American cars are in operation. The introduction of American parts follows from the use of American cars, and foreign parts are not now offered for sale. Neither is there competition from local manufacturers.

Articles in greatest demand are plain, ball, and roller bearings, bolts, brake lining, bushings, clutch facing, fan belts, spark plugs, springs, valves, radiator caps, starting and lighting generators, rims, and rim parts.

Formerly there were small stores in Curacao which carried small stocks of replacement parts, together with other supplies for automobiles, but these have disappeared and parts are now sold at garages and service stations, which are practically all operated by automobile dealers.

No hard and fixed rule can be stated as to terms for payment. Some dealers prefer to pay cash in order to secure all possible discounts, while with others shippers should use great caution and be in possession of recent credit reports. Terms over 60 days should not be granted without a thorough understanding of the situation.

While automobile dealers generally carry such replacement parts as are manufactured by the makers of the cars they represent, they frequently also carry competing lines.

Outside of local newspapers and printed posters there are no effective means of advertising in Curacao.

#### ACCESSORIES

The market for accessories is not great. The majority of cars are owned by persons of small means, who can not afford to make great improvements. At the present time, especially, only articles necessary for the operation of the cars are being acquired.

Accessories in most demand are bulb and electric horns, hand jacks, lenses and lamps, tire pumps, and seat covers. Accessories are practically all of American origin, but novelties, such as direction indicators, of German manufacture are carried by some dealers. There is no local production.

Practically all accessories are marketed through automobile dealers, who now operate most of the repair garages and service stations. The stocks carried are not large but are adequate for the demand. Frequently two or three competitive lines are carried by the same dealer. The trade here is not sufficiently large to warrant additional stocks being carried by other merchants.

The same terms apply as for replacement parts.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are about a half dozen service stations and repair garages operated by automobile dealers in Curacao and a few by other individuals. The department of public works is well equipped to take care of government-owned cars, and the oil refinery has well-equipped shops also.

In the past two years some modern garages have been erected and facilities now are about adequate. The employees of these garages are skilled in their work. Garage equipment, mostly imported, in-

cludes air compressors, battery chargers, car washers, garage tools, gasoline pumps, jacks, chassis lubricators, and wrenches.

The equipment of the independent garages is practically all American. There is no domestic production. The government shop and the refinery are expected to requisition from the Netherlands as much of their acquisitions as possible.

The principal reason for restriction in the use of mechanical equipment is the relative cheapness of hand labor. Electric current at reasonable price is available in abundance.

Tires at present are all changed by hand. Repairs of tires are made by chauffeurs when of a simple nature. In addition to the facilities in garages there are some separate workmen with vulcanizing apparatus.

The demand for garage equipment would be concentrated in Willemstad, Curacao, and Oranjestad, Aruba. The number of cars on the other islands would not warrant expensive repair facilities.

Some agencies for garage tools have been established through correspondence, but the visit of a traveler is the best method, though volume of sales at Curacao would probably not warrant a trip to this market only. In view of the pessimistic attitude regarding the future, large sales can not be hoped for. It is a debatable question whether there will be any improvement in garage facilities in the near future.

### NEWFOUNDLAND

**Demand for Replacement Parts Increasing, Accessories Small, Service Appliances Restricted—American Products Lead in All Classes—European Competition Negligible**

American Consul General Edward A. Dow and Vice Consul George C. Cobb, St. John's, Newfoundland

Motor-vehicle registrations as of January 1, 1931: 2,506 passenger cars, 11 busses, 510 trucks, and 97 motor cycles.

Notwithstanding the general world-wide depression, which has somewhat injured the trade of Newfoundland, and the economic loss locally due to the small catch of fish and low prices for fish abroad, registrations of new cars have held up well.

### REPLACEMENT PARTS

Replacement parts mostly in demand are those required for countries having long winters and few improved roads. There is a relatively large market for springs as a result of driving on rough and otherwise irregular highways. There is but little European competition in the supply of parts, since practically all Newfoundland purchases are placed in the United States or Canada.

Replacement parts are handled by approximately 20 firms, which are either distributors of American cars or are distributors or agents having their own garages. A few are well able to afford service to distributors in this city and island. The market for parts is increasing steadily. Most parts are for models not to exceed three years old.

Replacement parts which arrive from Canada usually cost more, but arrive sooner, coming from Halifax to St. John's in less than two days by weekly sailings.

The average retail cost to the consumer of parts, accessories, and garage equipment approximates 80 per cent above the price of the merchandise retailed at factory points in the United States. This cost includes duty and sales tax, as well as inland and ocean freight.

The best advertising medium is through the daily newspapers, the Daily News and Evening Telegraph of St. John's, which cover practically 80 per cent of the possible market for cars.

#### ACCESSORIES

The small demand for accessories is due to the fact that nearly all cars come to the country fully equipped.

Important in the trade are electric horns and jacks. The latter, as well as tire pumps, supplied with cars are usually of little use, especially because of lack of mechanics along country roads, garages being many miles apart.

Nonskid chains are an important item, relative to the number of cars on roads during the winter season, because of the prevalence of snow, ice, and wet roads from November until May. These chains should be easy to attach, because snow storms occur suddenly, and it is often difficult to reach a garage or find a sheltered spot to apply chains. It is estimated that metal chains will last for about 3,000 miles on local roads. Practically all owners remove chains promptly when the snow or ice disappears. The roads are too rough to require them in rainy, warm weather, since only one street in the island is paved and that with granite blocks. About 5 per cent of the cars are equipped with chains on either one or both of the front wheels.

Shock absorbers are of importance because of the prevalence of rough roads and holes in city streets. Despite the cold climate car heaters are little sold, probably because in the winter the traffic is confined to trucks or other open cars or to such passenger cars as are used over too short distances to justify heating.

The duty, to which is added a sales tax of 5 per cent of the invoiced value, varies from 40 to 60 per cent on most accessories, regardless of the country of origin.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are about four relatively well-equipped garages in St. John's. Outside the city, garage service has not been highly developed. The two paper mills at Corner Brook and Grand Falls, respectively, the iron-ore mine at Bell Island, and the lead and zinc mine at Buchans, all have garages attached to their plants and in some instances permit employees or other residents of the communities to have work done on their cars in these establishments. The latter are necessarily relatively well equipped for trucks and tractor repairs, since the respective town sites are too distant from other communities to permit quick and easy supplies or repairs from outside sources.

Few of the garage in St. John's have any considerable amount of floor space, and stored cars must often be removed to permit indoor work. Private garages are increasing in number in the city of St. John's, and the number of professional chauffeurs with experience is increasing. Most chauffeurs, however, have too little experience or equipment to perform complicated repairs, and these are done at public garages.

The high cost of equipment, owing to import duties, the combined water and land freight rates, and a 5 per cent sales tax, together with the small market which precludes purchases either by garages or by importers on a large scale, are important reasons for failure to equip garages properly or adequately.

Electric current supplied in Newfoundland is alternating, three phase, 60 cycles, 110 voltage, for the entire island. The rate supplied commercially, such as for power and light in garages, is 5½ cents per kilowatt-hour for the first 50, 3½ cents for the next 150 kilowatt-hours, and 2½ cents for the balance. The service charge is 60 cents per month. These are residential rates, which are preferred by all garages in St. John's in lieu of the regular commercial service rates.

Tire service affords an idea of garage service. Stations or agencies usually have mechanical jacks in St. John's, but these are rarely used in the few garages outside the city. There are no filling stations as established in the United States and other countries by the leading oil companies. Battery chargers are increasing in number, but this work is done properly by only a few dealers.

Garage equipment, replacement parts, and accessories are carried only to a slight extent by department stores and general hardware dealers; practically all of such goods are obtained either through distributors or through such of their agents as have garages.

The Furness steamship line has a weekly service from New York and one ship about every 18 days from Boston, both stopping at Halifax on outward and inward voyages, besides a fortnightly service of a third line from Boston to this port, the latter making several calls. It is important that even small parts be sent by this direct steamship service during the winter months, since the only railway from St. John's to Port-aux-Basques, Newfoundland, where connection is made for Canadian and United States points, covers a distance of 550 miles and takes about 30 hours. Express and mail trains run two or three times a week and are delayed for from one to several days by occasional storms. It is suggested that from December to April all shipments be made from either New York or Boston by direct all-water route.

Exporters should take the same precautions in packing as in the case of ordinary ocean voyages. Deliveries by mail or express can not be made within six days from New York. In view of the import duty and freight charges, prices should be kept as low as possible, particularly since the purchasing power of the average car buyer is lower than that prevailing in the United States.

The outlook for American accessories and garage equipment is favorable, subject to improved prosperity of this country. There is little doubt that American manufactures, whether produced in the United States and shipped from that country, or made or assembled

or shipped from Canada, will continue to hold their present strong position in this market, which, although small, is well disposed toward American goods.

### PANAMA

#### Replacement Parts Demand Improving, Accessories Decreasing, Sales of Service Appliances Limited—American Goods Predominate

Commercial Attaché George Curtis Peck, Panama City

Motor-vehicle registration in Panama and the Canal Zone as of January 1, 1931: 6,336 passenger cars, 486 busses, 1,196 trucks, 159 motor cycles.

### REPLACEMENT PARTS

Replacement parts most in demand are brake lining, clutch facing, fan belts, spark plugs, radiator caps, piston rings, and generators. A great deal of annoyance is caused by theft of radiator caps by street urchins, who either sell them to an out-of-the-way purchaser or throw them away.

The extent of American participation in the trade of replacement parts is estimated at 95 to 96 per cent. England and Italy have shown a slight activity in the market recently.

Dealers are employed as distributors in this trade. There is a trend on the part of automobile dealers to handle parts, particularly those applicable to the cars they sell. The leading distribution centers are Panama City and Colon, on a ratio of 90 to 10.

Newspaper advertising is the only method available at present, but some billboard advertising is making its appearance.

### ACCESSORIES

The accessory demand is on the decrease owing to the number of items carried as standard equipment on new passenger cars. Items most in demand are bumpers, electric horns, lights of all kinds, hand jacks, tire pumps, and tire covers.

Strangely enough in this country where the rainy season endures seven months of the year, there is almost no market for tire chains. The roads dry off within a half hour after a rain. Theft-proof locks should have a better sale than has been recorded. It is practically impossible to steal and get away with a car in Panama, but it is a common occurrence for persons to drive a car off and either smash it or leave it at some isolated point.

There is no foreign or domestic competition in accessory items. The only accessory dealer in the Republic orders direct from various houses in the United States, keeping a check on requirements and requisitioning as circumstances demand. Car dealers handling accessories generally order as required. Stocks are carried by car dealers such as will meet minimum requirements for their respective cars, and no dealer likes to carry too much stock as deterioration and oxidization are rapid in this country.

There are no usual terms in force in this trade, but credit terms of 30 to 60 days sight are often found.

Accessories are stocked by car agencies, garages, and accessory dealers, and a very few by service stations. Some car dealers operate service stations.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are not more than 25 garage and service stations in the Republic, and only about a dozen of these can properly be called "service stations." They are poorly distributed and, with a half dozen exceptions, badly conducted.

It must be remembered that Panama City, which harbors three-fourths of the cars of the country, was built and became congested long before automobiles reached their present state of popularity, and there is little space available for garages. The Canal Zone is well equipped with private garages, and there are one or two shops for repairs. Colon, being more spaciouly laid out, is more adaptable for garages, but on the other hand it does not have a great number of cars.

There are two or three emergency repair shops along the national highways for minor repairs.

All equipment in use is American; there is no foreign competition. A few bodies for busses are made locally, but no other equipment is manufactured and no future development is anticipated.

Garage and shop equipment needed most includes vices, hoists, and mechanical jacks.

The factors which restrict the use of mechanical equipment here are probably untrained men and lack of capital. Electric current is available in Panama City and Colon, and, of course, the Canal Zone. The charge for industrial use is 12 cents a kilowatt hour. For changing tires, hand tools predominate. Tire repairing is done in shops.

About 70 per cent of the garages are operated by automobile dealers. The main distributing center is Panama City; Colon is used for the Atlantic Coast, but possibilities there are small.

There are no large wholesalers. For the present at least, the present distribution through the one leading accessory dealer and the car dealers is meeting the situation. The market is too restricted and too competitive to encourage jobbing or agents.

The best method of selling to this market is direct contact with and direct sale to such an organization as the one accessory dealer, or to car dealers for their respective cars; terms, 30 to 60 days.

There is growing recognition of the need for better and more modern service and garage equipment, but there is a woeful lack of capital and space for this improvement. As the city moves toward old Panama, and is doing so rapidly, opportunity may arise to place more modern equipment.

## PORTO RICO

**Present Demand for Replacement Parts Fair, Accessories Declining—Spare Parts Only for Replacement and Occasional Additions as Expansions Are Effected—American Participation 100 Per Cent**

Assistant Trade Commissioner Darwin DeGolia, San Juan

Motor-vehicle registrations as of January 1, 1931: 10,421 passenger cars, 385 busses, 2,858 trucks, and 64 motor cycles.

## REPLACEMENT PARTS

Imports of parts and accessories have declined during the past three years as have car imports, but the decline in parts and accessories has been more rapid. While statistics do not separate parts and accessories, the decline in the total has been more largely in accessories. The sale of spare parts is not inclined to fluctuate widely except in cases where distributorships of cars are relinquished. Any decline that may have occurred in parts has been due to efforts by distributors and dealers to reduce inventories, thereby availing themselves of operating capital which was formerly tied up in stock.

It is rather difficult to outline the parts which are most in demand. The average Porto Rican wishes to operate his car as economically as possible, and for that reason if a deficient part can be repaired so as to serve the purpose it is done. If a bumper is broken or a fender dented, no repairs are effected as long as it does not affect the operation of the car.

Roads are frequently bumpy, and the local practice of overloading both passenger cars and trucks causes considerable breakage of springs. Many cars are in operation, however, with a broken spring which the owner does not bother to have replaced. The constant drying warm weather and a tendency on the part of drivers to make rather liberal use of their horns often uses up batteries rapidly. There are numerous battery repair shops with a great many brands of American-made batteries and one of local production. Prices are highly competitive, and no company can enter the market that is not prepared to meet them.

Radiator and hub caps are being constantly stolen by small boys to whom they have no value except as a gesture of spite toward a car driver who failed to hire one of these urchins to guard his car. As in all other lines, however, this demand is well supplied by numerous competing manufacturers.

All other lines sell, in general, in the same or somewhat lower proportion to the number of cars operating as they do in the United States.

All vehicles, parts, and accessories are entirely of American manufacture.

Parts are handled by the automobile distributors in order to give service to purchasers of their cars, and they do most of the business, effectually cutting out the independent parts manufacturer. Several of the latter are represented, but business in such lines is not good.

The manufacturer shipping parts, accessories, or garage equipment secures in Porto Rico either a representative on a commission basis or a wholesaler. The commission representative is an agent, carries no stock, and sells from catalogue or, in the case of small items, from sample. He calls on the large retailers and distributing retailers in the San Juan and a few of the larger equipment dealers and repair garages in other parts of the island. His sales are billed direct to the customer and he collects a commission of from 2½ to 10 per cent, depending upon the line, from his manufacturer. He is not responsible for credit risks, but is generally supposed, in the interest of his principal, to sell only good accounts. Owing to the very poor credit standing of the majority of the garages and smaller dealers in Porto Rico at the present time, however, the agent frequently sells a doubtful account, hoping that collection can be effected somehow. Considerable losses were suffered by manufacturers during 1928 and part of 1929 in this way, but more recently dealers have refused to buy anything that they do not have an immediate sale for, so that the credit losses have been cut down somewhat. The working principle of the commission agent is that he is to place the article in stock and on display at a number of retail establishments all over the island, thus effecting a wider distribution than a wholesaler would give. These retail establishments are expected to buy the articles for stock, paying usually at 60 or 90 days date.

In practice, however, the commission agent works at a disadvantage. He carries no stock himself and is not financially capable of carrying any, but if sales are brisk he can not supply the demand, and if they are poor he is likely to have his customers refuse to meet drafts on one pretext or another, forcing him to repossess the stock shipped them, which puts the goods in his hands and takes him out of the "agent" class. When he has the goods, which is bad business as the agent presumably operates without capital and so can not be considered a satisfactory credit risk, he is morally liable for them but not actually so, as they were not billed to him. He tries to sell them elsewhere, but if the original customer refuses them others are liable to, so he can only return them to the manufacturer, who has suffered losses in freight charges, overhead, and depreciation of the goods. If the manufacturer allows the agent to sell them at a reduced price, he does so only when he intends to get out of the market, as no one will pay the regular price after having seen the goods on sale at a "bargain."

Occurrences such as described above are frequent. The manufacturer tends to blame the agent for selling a bad account, but the dealer who refused to accept delivery may be quite solvent. He merely has had time to think over the order and realize, once the selling pressure is absent, that his chances of retailing the article in question within a reasonable time are small. He operates close to margin and can not afford to tie up capital in slow-moving stock. He does not like to cancel the order, as that would bring a return of the agent and perhaps unpleasantness, but when the goods arrive he claims that they were late in delivery and the "season" is past, that they are not what he wanted, that he did not agree to accept a draft but bought on account, or any one of a dozen other excuses that are often rather hard to disprove. Sometimes when terms are not



D/A he accepts the goods but refuses to accept the draft which is presented a day or two later. Then he offers to settle for a reduction of 10 to 15 per cent, on one pretext or another. He is always willing to return the goods, but the manufacturer, anxious to keep the outlet, usually does not wish to accept return.

The frank conclusion regarding such occurrences is that the market can not absorb the goods, and that many manufacturers should not be trying to sell in it.

There is a somewhat different procedure if the manufacturer selects a wholesaler as his outlet. The term "wholesaler" is a misnomer in the automotive trade of Porto Rico, as there is not a single establishment on the island selling only to retailers. Most of the firms that are wholesalers in automotive lines are also retailers, and they not only do the major portion of their business as such but generally sell to lesser retailers at retail; that is, while they may give a small dealer's discount, the quantity sold is usually only one or two units, called for to fill an immediate demand at the lesser retailer's store. The term "distributing retailer" is therefore more accurately descriptive of the operations of the larger dealers in automotive lines, all of whom are located in San Juan.

The average distributing retailer is well acquainted with conditions in all parts of the island. He has numerous small retailers, whom he considers as his accounts, and generally has a salesman to call upon them occasionally. His extensions of credit to them are small and generally sound. He is a more hard-headed and experienced business man than the small retailer, and he will not as a rule allow himself to be "sold" a new line unless he can see definite promise of doing a satisfactory business with it. He is straightforward and honest with his manufacturers, accepts shipments and drafts if in order, and is generally a good credit risk, although shippers should not neglect to make the proper investigations in each case before extending credit. It is somewhat more difficult for the manufacturer to "sell" the retailing distributor than for a commission agent to get orders from the small retailers, but the results are almost invariably more satisfactory.

The distributing retailer's customers are of three classes. Class 1 is the medium-sized dealer in automobiles and supplies located in the larger island towns, such as Ponce, Mayaguez, Arecibo, etc. This retailer generally is a dealer for a make of cars and also for one or more lines of tires. He operates a garage in conjunction with his store, chiefly to give service to buyers of his cars and tires but also does general repair work. He may also conduct a gas station. In his store he carries a small stock of parts, usually by no means complete, for the cars, a small stock of tires, various items of equipment such as spark plugs, brake linings, tire-repair kits, etc., and a few accessories such as radiator caps, dash clocks, a small spotlight or two, and paint. His most important lines, in order, are gasoline, tires, new cars, repair work, and accessories. When one or two items of equipment or accessories are sold out he orders a few units, in the case of accessories perhaps only one or two, from his retailing distributor in San Juan. His turnover in most lines is slow and his capital generally small, although he is kept under constant check by the companies for whom he sells gas, tires, and cars.

Class 2 is the small-garage owner. He may be a minor factor in a comparatively large town or the only garage operator available in a small hamlet. He probably sells gasoline for one of the big oil companies and may have a small stock of tires. He does general repair work, but keeps no parts and little equipment. When a job comes in requiring a piece of equipment, he sends to his distributing retailer for the unit needed.

Class 3 is the service station specializing in gas, oil, and free air. A few ornamental accessory items may be for sale, possibly tires. This class of retailer has practically gone out of existence in the last two years, however, to be replaced by the company-owned service station. So keen is the gasoline competition that in order to assure themselves outlets, the four large oil companies have been furiously engaged in buying up service stations or opening new ones. Generally the manager is merely an employee of the company and has no choice as to what is sold in his store. Sometime oil companies have made iron-bound contracts with owners regarding oil sales and left them to conduct a garage and accessory business if they choose. These stores, however, offer a very poor outlet for the accessory lines and practically none for the equipment and garage machinery lines.

The outlets available to the commission agents are the same as those listed above in addition to what sales he might make to retailing distributors. It will, therefore, be seen that the major portion of the parts, accessory, and garage-equipment sales are made at retail by retailing distributors.

The foregoing should by no means be taken as a condemnation of the commission agent. Numerous successful lines are represented by reliable men conducting this type of business. The advantages of having stock on the island, however, together with the manufacturer's freedom from concern over small credit risks, are factors which weigh heavily in favor of the distributing retailer.

Usual terms are 30 to 60 days against acceptance. In order to make sales in this highly competitive market, however, manufacturers often give 120 or 150 days. Some distributors buy from their manufacturers on open account, with varying special arrangements for handling the account.

There is no advertising of parts, nor any great efforts made to push the sales thereof.

#### ACCESSORIES

Sales of accessories have decreased in Porto Rico especially during the past two years. The reasons for this decrease are the tendency of manufacturers to equip stock models with all the necessary accessories, the serious overstocking of some slow-moving lines by dealers several years ago, which tied up their capital and made them cautious against stocking any device for which they are not sure a good demand would be created, and the general depression in the automotive trade.

Items which find the greatest volume of sale are horns, especially fancy electric horns at low prices, lamps and lenses, seat covers, and certain novelty radiator caps. In all of these lines, however, many models are already on sale by dealers, so that the demand for new lines is by no means good.

All accessories are 100 per cent of American manufacture with no foreign or domestic competition.

The statement as to methods of distribution and distribution centers is treated under replacement parts in detail.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Adequate servicing for all makes of automobiles sold is available in Porto Rico, chiefly at the garages of distributors and dealers in the particular type of car needing attention, but also at general repair shops located in all of the larger towns of the island. The smaller towns invariably have one or more filling stations and small shops where minor repairs can be effected. So adequate has become the servicing facilities that practically no new garage repair shops are being opened, the existing ones being all that can be supported by the trade.

In most garages mechanics properly qualified to effect ordinary repairs are available. For large jobs, such as differential repairs, generator, electric systems, or other more complicated work, it is generally necessary to call upon the large dealers or specialized shops located in the larger cities.

It is difficult to point out any particular equipment which is most needed. Larger garages are naturally supplied more extensively with tools than the smaller ones. Most garages are supplied already with tools, and except for replacements and occasional additions as expansions are effected, they may be considered as equipped and not in the market for further additions.

American equipment is used entirely; there is none manufactured locally nor any foreign competition.

The principal restriction of the use of mechanical equipment is the cost, both initial and maintenance. Repair shops running very close to the margin can not afford to invest in expensive mechanical devices which would be used infrequently. Electric current is generally available at reasonable rates.

Tires are almost invariably changed by hand, although larger tire shops frequently have mechanical tire equipment and air compressors. There are numerous small filling stations effecting tire repairs, but few specialized tire-repair shops.

Storage garages are frequently operated by dealers. Repair shops are also operated by dealers, although there are some independent establishments. Filling stations, frequently offering minor repair facilities, are owned by the oil companies in most cases.

Distribution is covered by the detailed description under the heading of "replacement parts."

Terms of from 60 to 90 days should be offered. In some cases it is necessary to grant 120 days to get the business.

Servicing facilities are adequate at present, and there is no feeling that improvement is necessary.

In summary, the following facts of general interest should be kept in mind with reference to the Porto Rican market for parts, accessories, and garage equipment at the time of writing this report (April, 1931):

1. The market is supplied entirely by American manufacturers.
2. It is already adequately stocked and provided with all the equipment that it can use and pay for.

3. It is very difficult to introduce a new item, as the market is flooded and suitable agents or distributors are hard to find.

4. Every conceivable item of motor car or garage equipment is on the market, or has been offered in Porto Rico, except car heaters, antifreeze mixtures, and other cold-weather equipment, which is obviously unsalable.

5. The competition in every line, among retailers, distributors, and American manufacturers is very keen.

### SALVADOR

**There is a Limited Demand for Replacement Parts, Accessories, and Garage and Service-Station Equipment, Largely Due to the Small Number of Motor Vehicles in Use—American Products Supply the Entire Demand**

Consul A. E. Carleton, San Salvador

Motor-vehicle registrations as of January 1, 1931: 1,829 passenger cars, 110 busses, 309 trucks, 85 motor cycles

El Salvador offers a limited market for replacement parts, accessories, garage and service equipment owing to the small number of motor vehicles in operation. While the imports of motor vehicles declined during the year 1930, as compared with the previous 12 months, there was a general tendency toward better and more frequent servicing.

Dealers are not expecting any great movement in automobiles during the year 1931, and business will depend largely on the results of the coffee crop and the adjustment of Government finances. However, the paving of the city of Santa Ana, the second largest city in the Republic, which it is expected will be well advanced by the end of 1932, the permanent construction of a trunk line between San Salvador and Santa Ana, and other highway construction should greatly stimulate business.

Bolts and spark plugs are the replacement parts most in demand, and there is a fair sale of ball and roller bearings, brake linings, bushings, fan belts, springs, piston rods, piston rings, and pinions. Among accessories there is a fair demand for tire covers, bulb and electric horns, hand and mechanical jacks.

There are no separate parts and accessories dealers in the country, such business being handled by automotive agencies. All dealers maintain repair shops, and these, for the most part, are well equipped. Garages are also maintained by the dealers, but apart from these there are few garages doing any great amount of business.

San Salvador is the chief distribution center, and dealers have agencies in various parts of the country.

Distributors buy on the basis of irrevocable letters of credit or cash with documents. The more responsible firms receive equipment on 60 days sight. Jobbers in San Francisco and New York grant 90 days sight with interest at 6 per cent.

Most American cars arrive equipped with the necessary accessories. The only additional equipment are traffic lights, and these are installed by the dealers at a cost between \$12 and \$15.

Various advertising methods are used, the more popular media being the newspapers; canvassing through the mails is also popular.

There is no particular reason for the restricted use of mechanical equipment except the limited size of the market and the proximity to the American source of supply.

Electricity is supplied at reasonable rates. Labor is cheap, and the more important dealers employ American mechanics. Since the percentage of American cars in use amounts to 95 per cent of the total registration, it can be seen that the question of competition offers no problem whatsoever.

### VIRGIN ISLANDS

**Present Demand for Replacement Parts Declining, Accessories Limited, Service Appliances Nil—American Participation 100 Per Cent with No Competition, Domestic or European**

**Trade Commissioner J. E. McKey, San Juan, Porto Rico**

Motor Vehicle registration as of January 1, 1931: 486 passenger cars, 7 busses, 116 trucks, and 13 motor cycles

The Virgin Islands of the United States constitute in effect two separate and distinct markets. One is St. Thomas with the adjacent island of St. John, and the other, the island of St. Croix, 45 miles distant from St. Thomas. Each has a little over 10,000 inhabitants, of whom about 7 or 8 per cent are white. There are in the two regions something like 100 families of considerable wealth, while most of the remaining population has a very low purchasing power.

St. Thomas, whose commercial life is dependent almost wholly upon traffic with passing vessels and upon expenditures of the Federal Government, has only a few miles of paved streets and roadways. With respect to automobiles and accessories, St. John may be dropped from consideration.

St. Croix, an agricultural community, has over 100 miles of fairly good road.

### REPLACEMENT PARTS

The existing market for motor vehicles and replacement parts in the Virgin Islands is wholly American, and may be expected to remain so. Indications point to a decline in the existing market rather than an increase during the next few years. With the recent change from naval to civil government the number of government-operated vehicles will doubtless be less. Likewise, with the removal from the islands of a considerable number of naval officials and their replacement by a smaller number of civilians, registration of privately owned cars will probably decrease.

Most of the motor vehicles in the islands are small cars of one or another of two leading American makes, both of which have distributors in both St. Thomas and St. Croix. In the case of one of these cars the distributors carry complete stocks of replacement parts. Distributors of the other car carry only the parts for which there is likely to be a demand. Two or three garages in each island each carry a few parts for various cars, but as a general thing re-

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placements for cars other than the two referred to must be ordered from San Juan, P. R.

The most effective advertising is through local newspapers, The Emancipator and Daily News, in St. Thomas. These mediums are used by local distributors and garages.

### ACCESSORIES

Only American accessories, and these in a limited number, are sold in this territory. They are ordered direct from the factories by the local garages and automobile distributors. Competitive lines are not handled by the same concern.

The market is adequately covered by existing distribution channels. The prevailing terms are cash with order.

### GARAGE AND SERVICE-STATION EQUIPMENT

There are in the islands 6 service-station garages, 3 in St. Thomas, 2 in Frederiksted, St. Croix, and 1 in Christiansted, St. Croix: Most of these are operated by automobile dealers. Competent mechanics are employed.

Items most in demand are racks with inclined runways, electric carbon removers, and paint sprayers. Only American equipment is used. Electric current is available to all garages at comparatively high rates but not too high to prevent its use.

Garages generally order equipment direct from the factory. Prevailing terms are cash with order.

There are in the islands only 4 or 5 compressors, 1 auto lift, 4 or 5 battery chargers, 2 brake-testing machines, 2 cylinder-boring machines, 1 small crane, and 8 or 10 gasoline pumps. There are no hydraulic jacks, high-pressure lubricating systems, or tire-repairing machines. In general use will be found oil and grease guns, paint sprayers, portable electric tools of various kinds, welding tools, wheel-alignment equipment, and hand tools.

## **SOUTH AMERICA**

### **ARGENTINA**

**Demand for Replacement Parts Good, Accessories Variable, Service Appliances Growing—Domestic Production Increasing—A Leading Market of Importance**

**Trade Commissioner Thomas C. Ballagh, Buenos Aires**

Registration of motor vehicles as of January 1, 1931: 294,764 passenger cars, 2,800 busses, 68,700 trucks, and 2,183 motor cycles.

Argentina is the largest foreign market, with the exception of Canada, for American replacement parts and accessories and ranked third in purchases of garage equipment in 1929, following closely after Brazil. Shipments during 1930 fell sharply, and the prospects for 1931 are not bright, but Argentina will doubtless maintain its position as one of the leading markets with increasing sales for some years to come. The importations of this country in the automotive field are appreciated when it is realized that more automotive vehicles are in operation in Argentina than in all of the rest of South America and over 95 per cent of the passenger cars and trucks, together with 80 per cent of the busses, are American, which tends to reduce imports of miscellaneous products from Europe.

SUMMARY OF THE MARKET FOR AMERICAN REPLACEMENT PARTS, ACCESSORIES, AND SERVICE APPLIANCES IN SOUTH AMERICA

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Country	United States exports in 1930			Present demand			United States participation		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Argentina.....	\$3,449,899	\$392,411	\$623,512	Good.....	Variable.....	Growing.....	87 per cent.....	85 per cent.....	Leads.
Bolivia.....	44,103	5,356	5,252	Growing.....	Slow.....	Small.....	90 per cent.....	90 per cent.....	Do.
Brazil.....	1,008,360	87,405	408,219	Good.....	Down.....	Growing.....	Leads.....	70 per cent.....	Do.
British Guiana.....	9,621	1,641	5,383	Fair.....	do.....	do.....	50 per cent.....	50 per cent.....	90 per cent.
Chile.....	891,651	91,702	212,200	Favorable.....	Slow.....	do.....	90 per cent.....	50-60 per cent.	70 per cent.
Colombia.....	289,391	29,708	48,850	Low.....	Small.....	Limited.....	100 per cent.....	100 per cent.....	100 per cent.
Ecuador.....	32,452	4,195	9,733	Fair.....	Limited.....	do.....	95 per cent.....	Leads.....	Leads.
Paraguay.....	21,297	1,744	4,472	Small.....	Growing.....	do.....	Leads.....	do.....	Do.
Peru.....	185,765	18,701	36,438	Fair.....	Fair.....	Growing.....	95 per cent.....	95 per cent.....	100 per cent.
Uruguay.....	361,845	61,360	139,048	do.....	do.....	do.....	95 per cent.....	95 per cent.....	95 per cent.
Venezuela.....	485,279	105,997	71,578	Depressed.....	Down.....	Limited.....	90 per cent.....	90 per cent.....	Leads.

Country	Domestic production			European competition		
	Replacement parts	Accessories	Service appliances	Replacement parts	Accessories	Service appliances
Argentina.....	Limited.....	Heavy.....	Growing.....	Growing.....	Small.....	Limited.
Bolivia.....	Nil.....	Nil.....	Slight.....	Small.....	do.....	Nil.
Brazil.....	Heavy.....	Fair.....	do.....	do.....	do.....	Small.
British Guiana.....	None.....	None.....	None.....	do.....	do.....	Do.
Chile.....	Small.....	Limited.....	Growing.....	Limited.....	Fair.....	Fair.
Colombia.....	None.....	None.....	None.....	Nil.....	Nil.....	Nil.
Ecuador.....	do.....	do.....	do.....	Small.....	Small.....	Do.
Paraguay.....	do.....	do.....	do.....	do.....	do.....	Do.
Peru.....	do.....	do.....	do.....	do.....	do.....	Do.
Uruguay.....	do.....	do.....	do.....	Slight.....	Slight.....	Slight.
Venezuela.....	do.....	do.....	do.....	Small.....	Small.....	Small.



Up to the present, the question of distribution is simplified by the fact that import business is practically confined to the city of Buenos Aires, which has a population of 2,000,000 people and which is the center where 90 per cent of the import business in every type of merchandise is done. This concentration of the market, however, makes competition extremely keen as shown by the fact that some 40 manufacturers' agents represent several hundred American manufacturers, and sell to some 35 or 40 importers, some of whom purchase only a few items. In addition, each importer of automobiles and trucks carries a greater or lesser proportion of the spare parts needed for the vehicles he sells.

The year 1930 was very unsatisfactory in the Argentine trade for automotive accessories, replacement parts, and garage equipment. A partial loss of grain crops which form the largest item in Argentina's exports, unsatisfactory condition of wool, hides, and other pastoral products during the year 1929, the drop in grain prices in 1930, unsettled political affairs—all contributed to the unsatisfactory condition. During the beginning of 1931, however, indications point to an ability to sell most of Argentina's abundant 1930 crop, even if at low prices.

Numerous road programs are in progress, which is increasing the optimism, although the greatest benefits will undoubtedly be felt in future years. Both as an index to general conditions and as a return to normalcy in the price of imported parts and accessories, an improvement in the exchange value of the peso will mean increased orders for parts, accessories, and garage equipment. While import orders for parts and accessories during January of 1931 were very low, there was noted a slight improvement in February, and agents are hopeful that 1931 may even show a slight improvement over the preceding year.

#### REPLACEMENT PARTS

The demand for different replacement parts is substantially the same as in the United States. Parts are generally purchased in the United States, except in those rare cases where the European articles can compete or in the more frequent cases where local manufacturers are beginning to get a share in the market. Generally speaking, however, the parts imported from Europe are used as replacements on European cars. The relative demand for parts on the different makes of American cars depends, of course, on the relative sales of each make, which in general are similar to their sales in the United States, with low-priced cars predominating to a somewhat larger extent and high-priced cars securing a much smaller proportion.

Among the parts which are most in demand are the following: Motor parts, including spark plugs, bearings of all kinds, pistons, piston rings and pins, connecting rods, pinions, valves, valve springs, cotter pins, washers, gears, fan belts, gaskets, gasket packing, and shim stock; chassis parts, such as brake lining and clutch facing, ignition cables, rims and wheel parts, and gears; and body parts, including artificial leather and top material, curtain fasteners, and fenders.

There is a fair demand for bolts, springs, hub caps, battery parts, and other items, whereas there is only a relatively small demand for

timing chains, drive shafts, steering wheels, starting and lighting generators, radiators, chains, and other parts.

Although the United Kingdom appears in the Argentine statistics as the largest foreign competitor in parts and accessories, these are largely parts for replacement on British automobiles and trucks, and little competition is offered in parts for American makes. The principal item in which England competes is brake linings. Germany is becoming a more serious competitor and beginning to make certain parts for American cars, usually at lower prices. These items include piston pins, starter springs, rim parts, battery plates, and air hose. They are also very strong in ignition cables and parts, and supply the Robert Bosch magneto. Italy not only supplies parts

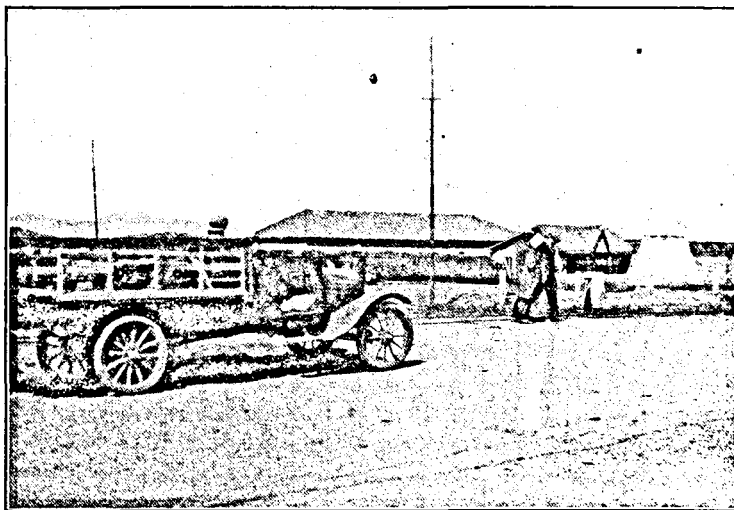


Figure 18.—This American truck in Ushuaia, Tierra del Fuego, the world's southernmost town, obtains its service requirements from the farthest south automobile dealer

for Fiat cars, which are the largest selling European car in Argentina, but also produces pistons and piston rings for use in American cars. The Belgians have long had almost a monopoly in the local market for wind-shield glass, but since the advent of safety glass the United States is beginning to secure much of the business, with some competition from Great Britain. Swedish ball bearings offer keen competition to the American products.

Up to this time, local manufacture of replacement parts is largely limited to those items of simple manufacture which are heavy in proportion to their value and which pay duty on a weight basis. In this class come automobile and truck springs, ring gears, bushings, radiators, etc. In these, local manufacturers secure the bulk of the business. Recently they have offered more or less competition in cast-iron pistons, piston rings, axle shafts, and steering wheels. A local branch factory of the Italian Piretti Rubber Co. produces radiator hose and air hose as well as ignition cables of various kinds.

### ACCESSORIES

The Argentine demand for accessories has fluctuated during the past few years, and with the advent of increasing number of accessories which are included as standard equipment, there has been a downward tendency in demand for new accessories to be placed on cars after purchase. The demand therefore has been largely for replacement for those accessories which come as standard equipment on the car, such as shock absorbers, horns, cigar lighters, etc. The increase in the number of cars imported has also carried with it an increasing demand for replacement accessories, thus offsetting the decrease in the demand for new accessories.

Accessories which have a good demand in Argentina include hand and mechanical jacks, electric horns, lubricating systems, tire gauges, and electric cigar lighters, while automobile paints and lacquers, together with lubricating oils, are sold in large quantities through accessory importers. There is a fair demand for shock absorbers, head lights, stop lights, rear lights, and spot lights, as well as lenses for these. A fair quantity of automobile polishes, top dressings, etc., are also sold. There is no demand for heaters and hood covers because of the mild climate in the central sections of Argentina where most of the cars are located. The demand for motor heat indicators is also small because of the Argentine preference for using ornamental radiator caps rather than heat indicators. Parking lights are not used, and there is very little sale for wind-shield visors, glare preventers, and traffic signals.

The French have practically a monopoly of the taximeter business, which is handled through companies that rent the meters to the taxi drivers. French competition is also felt in electric head lights and spot lights. Germany also supplies headlights and other electrical equipment, including horns, together with novelties of various kinds, which are also furnished by other European countries.

Favored by import duties, local producers are securing the bulk of the trade in articles of simple manufacture such as wind-shield wings, seat and tire covers (for which the material is imported) ornaments of all kinds, tire chains, mirrors, bulb horns, tire pumps, license plates, step and kick plates. Local producers offer more or less competition in body hoists for trucks, luggage carriers, and novelties of various kinds.

### GARAGE EQUIPMENT

Argentina has made considerable progress in recent years in installing modern garage equipment and in providing better service facilities to car owners. Much remains to be done, however, so that this country may be considered a growing market for most kinds of garage equipment and one which warrants intensive and careful development. The training of mechanics so far is secured principally in garages, but undoubtedly the number of schools for mechanics, which are now very few, will be increased. Various large distributors of automobiles are devoting a great deal of effort to seeing that their dealers and agents in various parts of the country have modern well-equipped service stations, and even go so far as to train many of their mechanics for them.

Although many automobile dealers maintain garages, the tendency is generally toward garages and repair shops being maintained independently and it is principally among these independent garages and machine shops that much work remains to be done in instruction and in raising the standard of equipment.

Most of the equipment installed at present is of American manufacture, but local firms are now producing an important share. There is a good demand for American cylinder-grinding machines, reamers, high-pressure lubricating systems, tire changers, portable drills and other electric tools, valve grinders and hand tools. There is a fair demand for paint-spraying equipment, wheel-alignment equipment, oil-dispensing pumps, drill chucks, and garage jacks.

Among those articles of small demand are those which are manufactured locally and certain others which have only begun to be introduced in the market, such as brake-testing machines, towing and salvaging equipment, battery chargers, polishing machines, and car washers.

There is comparatively little competition from Europe in special appliances for service stations, although Germany supplies reamers and hand tools, and France, vulcanizers and gasoline pumps. In general, however, European competition is mostly limited to metal-working tools and machinery, which can be used in other industries besides automotive work, such as lathes, power tools, and hand tools.

Local manufacturers during the past two years have developed surprisingly the manufacture of garage equipment. They are especially strong in those items which are bulky, and which can be constructed locally out of angle iron at a considerable saving in freight and duties.

Garage equipment made locally includes motor supports, garage cranes, hydraulic elevators (the central steel tubing coming principally from Germany), tool carts, welding equipment, motor testers, bench presses, vulcanizers, tire changers, and air compressors (of which the pumps and electric motors are imported), tire inspectors, garage creepers. Gasoline pumps are manufactured to such an extent that American pumps are practically excluded, because of requirements and specifications of the governmental department of weights and measures, which apparently no American manufacturer has been able to meet so that the business has been secured by the one local producer who is able to do so. It is hoped, however, that these specifications may be changed to such a degree that American manufacturers will be able to participate in this business.

The duty on most garage equipment and service-station appliances specifically mentioned in the Argentine tariff is 32 per cent of their value c. i. f. Buenos Aires. Certain equipment, however, enters as "machinery not otherwise mentioned," with a duty of only 5 per cent ad valorem. Although a competent customhouse broker should always be consulted to verify the duties on a particular piece of equipment, it is reported that various kinds of inspection and testing machines, together with cylinder-grinding machinery enters under the 5 per cent classification, while a higher duty must be paid on air compressors, vulcanizers, tire inspection and repair equipment, hydraulic elevators, etc. Drill presses and cranes are specifically mentioned in the tariff with duties approximately 6 and 3½ cents, in United States currency per pound of weight, respectively.

Local manufacturers state that it is profitable to make locally such garage equipment as can be produced at a saving of 35 or 40 per cent on the cost of the imported article laid down in Buenos Aires after paying freight and duties. When the saving is only 20 per cent, however, it is stated that it is much more satisfactory to sell the imported article, which is better finished and preferred by the local customers. It is therefore apparent that American manufacturers now losing business might be able to regain some of their trade by shipping equipment unassembled at a saving not only in freight but sometimes in duties because of lower rates charged on angle iron, castings, bolts and nuts, etc. Angle iron and steel girders are also made locally.

#### DISTRIBUTION OF AUTOMOTIVE PRODUCTS

The problem of distribution is both difficult and exceedingly important. Since American manufacturers have the bulk of the Argentine business in parts and accessories, competition is principally between different American brands. The manufacturers are already aware of their relative competitive positions in the United States, as to price, quality, and style. Each manufacturer, however, is faced with the problem of how to secure the best possible distribution in Argentina. The importance of this country as the largest market outside of the United States and Canada, and a growing one, makes it well worth while for each manufacturer to study changing conditions thoroughly, to determine a broad definite policy of distribution over a period of years, and to select agents and distributors with utmost care.

The definite trend toward local production protected by import duties may later reduce imports from the United States substantially, in which case those manufacturers who have pursued a successful policy of wide distribution of advertised high-quality products will be better able to withstand local price competition than those firms whose distribution has been weak.

One of the criticisms most frequently made by Argentine importers of automotive equipment is that American manufacturers change their agents and distributors too frequently and appoint new ones with insufficient investigation. It may be assumed that each change leaves one or more dissatisfied parties in the market, and that it is wiser for the American manufacturer to choose with care and to work as closely as possible with his agent over a period of years rather than to change to the first person who promises larger sales, which he may or may not be able to deliver. During 1930, when Argentine imports dropped sharply, it was perhaps natural that American firms, which saw their orders decreasing, began to wonder if some other agent or distributor might not produce more business. On the other hand, most manufacturers felt it was wiser to stay with the agent who had produced good business in previous years, who had the advantage of knowing the product and the customers' requirements for it, and who could be depended upon to sell carefully to firms most likely to pay their drafts at maturity.

## TRADE-MARK REGISTRATION

In order to make certain that they will not lose the agency or distribution of lines on which they have spent time and money in introducing, many Argentines feel justified in taking advantage of the Argentine trade-mark law. This provides that anyone may register in Argentina any trade-mark not previously registered there, and unless protest is made within 30 days of the publishing of the application in the Official Bulletin, that trade-mark becomes the property of the applicant, who may prevent the importation into Argentina of the genuine article bearing that trade name.

Previous registration in the United States or other countries provides no recourse. The only exception is in the case of the registration of the name of a living person connected with the manufacturing company. Also the American manufacturer may always use the full name of his company on the label of the product as "manufactured by the Blank Manufacturing Co.," although he may not use the trade-mark "Blank," if some one else has registered it in Argentina.

It has frequently happened that an American manufacturer who decides to change his agent or distributor finds the local firm has registered the trade-mark. The manufacturer then must either buy the trade-mark rights at whatever price the holder sets, or leave the agency or distribution with the holder, or else market the product under a different trade name. It costs approximately \$50 in United States currency to register a trade-mark for a period of 10 years through a Buenos Aires patent attorney. In some cases where American manufacturers have failed to register their trade-mark and some one else has done so, it has cost them as much as \$5,000 or even more to buy it back.

Thus before an American firm begins to negotiate a change of agency, it should check up and see who owns the trade-mark in Argentina. More important still, when entering the market it should see that the trade-mark is registered in the name of the manufacturer and not in the name of the export agent, Buenos Aires agent, or distributor, so that 10 years later the firm will have a free hand in determining its policy of distribution.

## DISTRIBUTION CHANNELS

The various distribution channels mentioned below are practically all used for parts, accessories, and even service-station equipment. Probably the only exception is that garage equipment and accessories are not handled by branches of American motor-car manufacturers, nor by car importers.

Many American firms confine their lines for export to combination export managers or commission houses in New York or other cities, who appoint manufacturers' agents or distributors in each individual country. There is a strong tendency, however, on the part of both agent and distributors to seek direct connections with the manufacturers, both in an effort to secure a low price and also because of a feeling that there is less likelihood of the line being withdrawn from them because of any break between the New York export house and the manufacturer.

On the other hand, the use of an export agent may be often advisable, especially for articles of relatively small sale. The export agent handling a dozen or more automotive lines can have his Buenos Aires representative secure small orders in each of them, which grouped together will make a profitable business. It has become the practice for customers placing various small orders to have the shipments combined in New York by a forwarding agent, and this is easier when the lines are handled by the same export agent. The expense of securing credit information about the customers and trade experience in the market can be divided among the various lines at less cost than if the manufacturer of each product carried on business direct.

#### LOCAL MANUFACTURERS' AGENTS

Most of the business in automotive products and accessories is carried on by manufacturers' agents in Buenos Aires, who have either direct connections with the factory or who represent an export agent. As previously mentioned, there are some 35 or 40 manufacturers' agents resident in Buenos Aires handling automotive products. These agents limit their efforts almost entirely to wholesale importers in the city of Buenos Aires, although some of them sell also to the direct importers which have begun to do business in recent years in the principal cities, such as Rosario, Cordoba, Tucuman, Mendoza, and Bahia Blanca.

Direct imports from these other cities, however, are not estimated at the present time to exceed 5 or 10 per cent of the total business. This is because many interior importers who are buying relatively small quantities find that the expenses and details of importing, and the larger amounts that must be ordered, make it less satisfactory to import direct than to pay a higher price to the Buenos Aires importer for the privilege of ordering smaller quantities and securing prompt delivery. It may be assumed, however, that the continuous growth in the number of automotive vehicles in circulation, already surprisingly large and increasing yearly, will result in future years in an increase in direct importation from interior towns in those articles which can be ordered in fairly large quantities.

The manufacturers' agent generally sells to half a dozen or more of the thirty-odd importers in Buenos Aires, realizing that each of these has an established clientele in the interior and that to confine a line to one distributor may mean only partial distribution. However, in certain cases agents have, with the consent of their factories, confined their sales of a given product to a single importer. This is particularly the case in certain articles where there are a number of competitive brands in the market, and an importer is able to take the attitude that he will sell only a product not carried by a competitive house. Some American manufacturers have solved this problem by producing different brands of the same type of product (such as brake linings) and confining each line to a different distributor.

The position of the agent in cases where sales are made to only one importer is that he continues to watch out for the factory's

interest by reporting conditions in the market, by seeing that the distributor carries an adequate stock and does not carry a competitive brand if such is the arrangement, by adjusting claims and disputes, and by suggesting to the factory when he feels it advisable to change the distributor, for credit or for other reasons.

#### TRAVELING REPRESENTATIVES

Some American manufacturers have a traveling representative whose territory is frequently all of South America. This agent appoints distributors in each country and secures a commission on all business done in his territory. This method is not usual, but has been used in selling batteries, shock absorbers, and other equipment with apparent success. The traveler may represent only one company or two or three manufacturers and visit each country periodically.

#### EXPORT MERCHANTS

A few lines of equipment are distributed through export merchants who have offices in New York and who have local organizations in Buenos Aires and other markets of South America. The firms purchase for their own account and sell locally either to other wholesalers or retailers.

#### EXCLUSIVE DISTRIBUTORS

A substantial proportion of the business is handled through firms in Argentina who import for their own account, but who handle only those lines for which they have exclusive distribution in Argentina. Some of these sell from their stocks only to other wholesalers. Others compete with the wholesalers by selling to the interior and to city retailers.

#### IMPORTING WHOLESALERS

The bulk of the business is probably done by wholesale import houses which handle a complete line of parts, accessories, garage equipment, and tools, and which purchase each of them through whatever channels the manufacturer of each product has determined to use. As previously mentioned, most of their purchases are placed through manufacturers' agents resident in Buenos Aires, who sell on commission. In some cases they have made arrangements with the agents that they shall be the only customer to whom he sells a given product. Some goods they purchase from the exclusive distributors.

Usually there are one or two or more lines in which they have direct connections with the factories as distributors without intermediaries. This is, of course, the method which the wholesalers prefer, as it assures them the lowest prices without competition from other wholesalers, so that they can set their own prices high enough to make a substantial profit. On the other hand, it is not always the most satisfactory method for the manufacturer, unless the wholesaler is very strong and promises a larger amount of orders for sale to his portion of the clientele than can be secured by selling to other wholesalers. An abnormally high price placed by a wholesaler on the line he has exclusively may give him more profit, but may cut down the manufacturers' sales volume. However, in compensation for



having exclusive distribution on contract for a period of years, such wholesalers often advertise the product and push their sales vigorously.

#### FACTORY REPRESENTATIVE OR BRANCH

In some cases manufacturers believe they can maintain closer contact with the market by placing one of their own men in Buenos Aires on salary to sell to the wholesalers. Electric tools is one example. In other cases groups of associated manufacturers have established a branch office for carrying stock and distributing to wholesalers and retailers. Occasionally a factory has assisted its Buenos Aires distributor by sending a technical man, not to increase sales, but to look after service and education in the use of the company's products, especially in the case of electrical equipment. Such co-operation is readily appreciated by the distributor, and in the case of garage equipment might be further used to advantage as a means of instructing purchasers in the most profitable employment of the equipment they buy.

#### PARTS DEPARTMENTS OF AUTOMOBILE IMPORTERS

All the means of distribution previously mentioned are used to care for the distribution of parts, accessories, and equipment sold by their manufacturers, rather than by manufacturers of automobiles and trucks. In addition, a considerable proportion of the imports in parts consists of those replacements brought in by each importing distributor of automobiles and trucks, which are made up of parts used for their own make of car or truck. The manufacturer of one leading low-priced make with a very extensive dealer organization throughout Argentina is said to supply nearly all of the parts used for that make of car, and the producers of other low-priced makes supply smaller proportions. In medium-priced makes of cars it is estimated that only 30 per cent or 40 per cent of the replacement parts are supplied by the automobile importers, and most of these are parts that wear out less frequently. In high-priced makes, however, a larger proportion is supplied by car dealers.

In this connection, reference is made to an earlier paragraph in this report describing the relative imports of low-priced, medium-priced, and high-priced cars.

#### SECONDARY DISTRIBUTION

Once the replacement parts and accessories have been imported, the wholesaler makes up his catalogue, showing illustrations of the different parts, each with its corresponding number. Catalogues which show retail list prices are made anywhere from twice a year to once every two years. Confidential price lists or dealers' discounts are put in a separate booklet. The 8 or 10 larger wholesale houses have corps of salesmen traveling the interior, and several importers have branch stores in the important interior towns. A leading wholesaler says that his sales in the interior amount to approximately 40 per cent to machine shops and repair shops, about

30 per cent to automobile dealers, about 20 per cent to houses dealing only in parts and accessories but which make no repairs, and 10 per cent to garages.

Sales of garage equipment, however, during the past two years have been mostly to automobile dealers as a result of the campaign among Buenos Aires automobile distributors to improve the service facilities of their interior dealers. Sales to garages, machine shops, and service stations are expected to increase in the future.

#### TERMS OF SALE

The most general terms of sale in parts, accessories, and equipment sold by manufacturers in the United States have been in the past 60 days' sight draft with documents attached. It has been the tendency during the past year or so for dealers to insist upon and to obtain 90 days' sight draft. During 1930 the question of terms was complicated by the fluctuation and the depreciation of the Argentine peso. Whereas at par 2.35 paper pesos will purchase \$1 in United States currency, in January, 1931, it was necessary to pay 3.35 pesos to buy a dollar. Thus importers had to pay as much as 42 per cent more for parts and accessories. As the exchange value fluctuated daily, many importers who ordered merchandise when the peso was worth, say, 2.70 to the dollar, found their drafts coming due at a time when the dollar was worth perhaps 3.20 pesos. As a result, many local importers requested extensions on individual drafts and began even to ask for a lengthening of the terms on the written order to 120 days' sight draft. Their arguments were based partly upon unfavorable exchange, which they thought might better in another 30 days or so after their draft was due, and also partly because of the slowness in receiving collections from the interior. In normal times, Argentina being an agricultural country, interior credit is allowed to accumulate until receipt of money from crops twice a year. This means that importers must pay for their merchandise on comparatively short terms and extend longer terms to their interior customers.

However willing United States firms may be at present to make credit concessions in order to secure much-wanted orders, it must be remembered that once terms of 120 days' sight draft are granted upon taking the order, when business improves it will be more difficult to cut down the credit terms to 90 or 60 days. It would seem preferable to make extensions on individual drafts as a special concession after the regular 60 or 90 days had elapsed. Many North American firms have listened to the plea of their Argentine customers that it is unfair to require them to pay 30 or 40 per cent more for their merchandise because of depreciation in the Argentine peso when in the customer's opinion the peso would be worth more in another 30 to 60 days. Some manufacturers have replied by taking orders and agreeing to receive his money in pesos at fixed rate of 10 per cent below par regardless of what might be the current rate on the day of payment. In this case the manufacturer keeps his money in pesos in Buenos Aires waiting for the peso to recuperate, which amounts to speculating on the exchange. Other American firms have felt that to grant an extension for reasons of exchange is simply to

prolong the risk unnecessarily, and they have replied that the customer may do his own gambling on the exchange. In such a case a manufacturer accepts a deposit in a Buenos Aires bank of the amount of money in pesos at the rate of the day, with an arrangement whereby the customer can remit later should the peso recuperate further.

#### ADVERTISING

Generally speaking, United States manufacturers have placed the burden of advertising upon the Argentine importers and distributors. It is partly for this reason that importers who have spent money on advertising adopt the above-mentioned attitude in regard to trade-marks. Some manufacturers, however, grant a discount for advertising ranging up to 10 per cent and sometimes as high as 25 per cent for specialties. Usually the distributor is required to add an equal amount. Advertising is very widely used in Argentina for all kinds of products and should form part of the distribution policy of a North American company interested in permanent distribution on an important scale. Although manufacturers may be well established in the United States, if they have never sold in Argentina, it is just as hard for them to get started without advertising as it would be for them to begin in the United States without spending money in making their products known. It is absolutely essential that advertising material should be in Spanish. Finding from experience that interior dealers lose sheets out of loose-leaf books, Argentine wholesalers prefer to issue bound catalogues and make their own cuts illustrating the articles, which prevents American firms from supplying illustrated descriptive price sheets of the type used in United States. However, dealers would gladly have illustrated folders printed in Spanish to send with their catalogues. To supply these in English is in most cases useless, and it frequently arouses antagonism.

The various media available are numerous. Several newspapers published in Buenos Aires have a national circulation, and there are smaller newspapers in the interior cities. Automotive magazines can also be used, including those published in Spanish in the United States for distribution in South America, in which case the name and address of the distributor or agent in Argentina should always be mentioned in the advertisement.

#### BOLIVIA

**Replacement-Parts Business Increasing, with Accessories Slow and Service Appliances Offering a Small Market—American Participation Amounts to Over 90 Per Cent of Requirements—Practically No Domestic Production**

American Vice Consul Paul C. Daniels, La Paz

Registration of motor vehicles as of January 1, 1931: 1,220 passenger cars, 129 busses, 866 trucks, 132 motor cycles.

The Bolivian automotive market has suffered considerably from the effects of the severe depression through which the country is passing. Imports of automotive items have declined considerably during the 12 months ended December 31, 1930. However, it is pointed out that stocks in dealers' hands have been greatly reduced

and that recent orders have been made on a small scale, so that an improvement in the economic condition of the country is almost sure to be immediately reflected in increased automotive importations.

Aside from the unfavorable business conditions prevailing, which, it is hoped, will prove to be only temporary, the chief obstacle in the way of increased sales of automotive products is the lack of good highways. This fact is generally recognized, and most Bolivians are desirous to see more and better roads in the country. Unfortunately, the necessary funds are not available, and at present no important road construction is being carried on in the Republic. As time goes on, nevertheless, there is bound to be more activity along this line, with beneficial reaction in the automotive trade.

#### REPLACEMENT PARTS

The market for replacement parts has shown a gradual trend upward, which may be expected to continue in the future. With the number of motor-vehicle registrations increasing from year to year, it is only natural that the demand for parts will increase in proportion.

There is a demand for all types of parts, with the exception of stampings, forgings, and automobile frames.

The bulk of the trade is with the United States, although there is some foreign competition in certain lines. England and Germany are able to compete in brake lining and electric bulbs, and Italy supplies a certain amount of automobile batteries. Dealers state that although the quality of American products is unquestioned, the European countries are able to offer lower prices and greater facilities for payment. In some cases parts are sent from Europe on consignment, which is never done by United States exporters in this field.

It is estimated that at least 90 per cent of the replacement-parts trade is with the United States. Parts are usually handled by automobile dealers. The larger dealers have their own garages and service stations as well. Storage batteries, however, are also handled by dealers in radio supplies and electrical equipment.

The usual terms offered dealers by American exporters are 60 days, documents against acceptance. European firms are more liberal, generally offering from 60 to 180 days, documents against acceptance.

There is practically no advertising of replacement parts, since the limited nature of the market does not warrant it, although window displays and placards are used to a certain extent.

#### ACCESSORIES

In spite of the gradual development of the automobile market in Bolivia, the market for accessories is not increasing proportionally, owing to the fact that standard makes of cars are now completely equipped.

Accessories most in demand include electric horns, nonskid chains, jacks, lenses, lights, luggage carriers, rear-view mirrors, tire pumps, tire gauges, and windshield cleaners.

The American share of the accessory trade is estimated at approximately 90 per cent of the total. There is no domestic competition

and foreign participation is negligible. Accessories are generally marketed by direct seller to the dealer. Small stocks of the articles most in demand are carried, and present distribution methods cover the market adequately. The usual terms in this trade are similar to those in the parts field.

Accessories are generally stocked by the larger car agencies, which also operate garages and service stations. There are no dealers specializing in accessories alone.

#### GARAGE AND SERVICE-STATION EQUIPMENT

The large automobile dealers operate garages and provide adequate service facilities for their clients and other car owners. In addition, there are small repair shops, usually poorly equipped, where minor jobs can be undertaken. The number of skilled automobile mechanics has increased, and there are adequate servicing facilities in all the larger cities.

There is a very small demand for this style of equipment. The items in most general use are auto lifts, cylinder-boring machines, garage tools, gasoline pumps, jacks, oil and grease guns, oil-dispensing pumps, paint-spraying equipment, polishing machines, portable drills, reamers, tire-repairing machines, valve grinders, welding outfits, and wrenches.

American equipment is used almost entirely. There is very little local manufacture of garage and service-station equipment, although air compressors, towing equipment, and car washers are produced to some extent by local foundries. However, many of the parts and materials entering into the finished product must be imported, such as motors, rubber tubing, etc. Foreign competition in these lines is negligible.

Hand tools are usually used for changing tires. Most tire repairing is done in repair shops. A few vulcanizers have been installed, but it is stated that there is not enough business to go around. Electrical current is available in the chief centers, such as La Paz, Oruro, and Cochabamba. The rates are fairly high, but this is not an important factor. The chief reason restricting the use of mechanical equipment is the limited extent of the automotive market. It has been found that although mechanical equipment soon pays for itself when there is a big turnover in its use, it is an expensive luxury when there is not sufficient business to keep it in more or less regular use.

The larger and better equipped garages are operated by automobile dealers. There are also a number of small repair shops.

The main distributing centers for Bolivia are La Paz and Oruro, and secondarily Cochabamba, Sucre, and Potosi. Imports to these centers are made through the Pacific ports of Antofagasta and Arica in Chile, and Mollendo in Peru. Santa Cruz, the distributing center for eastern Bolivia, should be treated as a separate market, owing to the difficulty of communications with the rest of the country.

The best selling method is through automobile dealers, who carry similar lines, have suitable contacts, and know the trade. Some dealers act as manufacturers' agents, taking orders locally, sending them to the factory, and receiving a commission on the business obtained.

Sales in this case may be made directly to the ultimate purchaser or to the dealer who resells at a profit. The latter is by far the more satisfactory method, since misunderstandings and credit risks are minimized and orders may be larger.

Dealers desire to obtain as long terms as possible. It is generally true that European exporters grant more liberal terms than American houses and that this is frequently a factor considered by Bolivian importers in placing orders. So long, however, as American products can continue to dominate the market without the granting of additional credit facilities, there seems to be little reason for extending more liberal credit, especially when business conditions in Bolivia are poor.

There is a slowly growing recognition of the need for better and more modern service and garage equipment. It is unlikely, however, that there will be much business along this line until the number of automobiles and trucks increases, which in turn will depend on general business conditions. At present the servicing facilities in the chief cities are believed to be sufficiently developed in proportion to the market.

## BRAZIL

**Good Demand for Replacement Parts, Accessories Declining, Upward Trend in Service Appliances—United States Leads in All Lines—Domestic Production of Parts Considerable; Noticeable European Competition**

Assistant Commercial Attaché A. Ogden Pierrot, Rio de Janeiro

Registration of motor vehicles as of January 1, 1931: 132,550 passenger cars, 1,500 busses, 65,520 trucks, 2,600 motor cycles.

### REPLACEMENT PARTS

The growth of the Brazilian market for automobile replacement parts in recent years has been a steady one and has kept pace with the growing sales of automobiles.

The parts in demand include practically every item making up the list of such parts, with bearings, fan belts, timing chains, spark plugs, valves, piston rings, gears, etc., enjoying the best sale.

American parts predominate in this market. In some items keen competition is encountered from European manufacturers to such an extent that American products are practically unsalable. This is true of very few items, however, and the majority of the parts sold are of American origin. The following comments give detailed information as to the competition of various items.

Practically all bearings, plain, roller, and ball, are of German manufacture. Producers of American bearings have found it next to impossible to compete with the German product. Spring bolts are usually purchased from the United States, as they vary somewhat with different makes of cars and are usually purchased direct from the car manufacturer. The more simple or plain bolts, however, are principally of German origin, owing to the cheaper prices quoted on German products of this character. There is little competition on brake lining except among the numerous brands of American linings on the market. Competition is keen, and it is

difficult to interest agents and importers in makes of brake lining not well known unless the manufacturer or exporter is willing to assist in aiding the introduction of his product by giving his local representative adequate support either in the form of an advertising allowance or through consigning stocks when the exporter is convinced that his representative is deserving of the confidence that this requires.

Practically all bushings for use on American vehicles are of United States manufacture. Since nearly all the passenger cars and at least 85 per cent of the trucks in use in Brazil are of American manufacture, the small amount of replacement-parts business resulting from the needs of these foreign cars and trucks is negligible. Parts used in repairs to European vehicles are sold almost exclusively by the distributors of the individual cars, as the demand is too small to interest importers in stocking these parts.

Clutch facings are all obtained from the United States. There is a small demand for driving chains, but timing chains have a fair sale, coming from the United States. Fan belts are practically all American, as are the spark plugs.

Springs are now being largely produced in Sao Paulo. Formerly, the car manufacturers as well as special spring manufacturers sold the bulk of the springs purchased in Brazil, but the depreciated exchange has so increased the price of imported springs that they are now being manufactured on a fairly large scale in the country.

Valves, radiator caps, gears, pinions, and drive shafts are imported practically exclusively from the United States. Dealers report a steady demand in ordinary times for valves and gears.

The bulk of the pistons and piston pins are purchased in the United States, but Italian competition has made itself felt to some extent. Piston rings are primarily American, although some competition is experienced from the German product. The competition among the various exporters in the United States is so keen as to put this business strictly on a price basis. In order to succeed in selling this item agents are obliged to make every concession in the way of extra discounts, and when their factories fail to lower prices to accompany price decreases of other factories, they are out of the market.

Stampings are being produced on a large scale in Sao Paulo. The domestic products of more simple design give entire satisfaction, and their prices are sufficiently under those of the imported products to enable them to sell. American stampings are sold in small quantities. Some German stampings, particularly running-board plates, are sold.

The bulk of the forgings have been imported from the United States in the past, but there have recently been a growing number of these produced in Sao Paulo. Body hardware is primarily American with some German products offered.

Most of the body-upholstery material is produced locally. A very small amount is imported from the United States. The only industry that may be considered to be in a position to take care of the country's needs is the textile industry, and though the production of fine count goods is still insufficient, the materials used for automobile upholstery are nearly all available here. There is an ex-

ceedingly small sale of steering wheels, and orders when placed go to the United States.

There is no demand for auto frames and little sale of shims and shim stock. There is a regular small sale of generators, starting and lighting, but competition is extremely keen. A fair sale exists of rims and rim parts.

As will be noted from the foregoing, foreign competition with American replacement parts is of comparatively little consequence. The major German competition is in bearings, plain bolts for use in body mounting, body hardware, and to a slight degree piston rings. As in most lines, the German parts sell purely on a price basis.

Springs, stampings, forgings, and upholstery material of domestic manufacture compete strongly with the American goods. This is particularly the case with upholstery material, practically none of which is imported, owing to the high state of development of the local manufacturing industry which has been built up largely as a result of a protective tariff. The competition in springs offered by the Sao Paulo product results largely from the present weakness in Brazilian exchange. The local manufacturers are less capable of effectively competing with the American product, but exchange is quoted at the rates which obtained a year ago. With the present exchange situation, however, and the cheap labor available here, the domestic manufacturer is in a fortunate position. The same explanation may be given for the ability of the local manufacturers to compete in stampings and forgings.

It is not believed that European or domestic manufacturers are offering any special terms to importers at this time. Prices of these products are lower than American prices, the German undoubtedly due to lower manufacturing costs and to articles of lesser quality; the domestic due to tariff protection and the present depreciated currency, which gives the local manufacturer an advantage, owing to the fact that his labor costs have thus far risen but little, while imported merchandise must be sold at an increased price of not less than 50 per cent on account of the decline in the value of the milreis, in terms of foreign exchange, to at least that extent. The extent to which the domestic manufacturer can compete in this business in the future is limited, of course. Brazilian manufacturers are not equipped, either from the standpoint of the raw-material supply or technical knowledge, to produce many of the parts involving complicated engineering and manufacturing processes, and the exchange advantage enjoyed can not be considered as a permanent condition, due to the natural tendency of wage and material costs to mount in milreis if the present low exchange continues.

#### DISTRIBUTION CENTERS

The leading distribution centers are Rio de Janeiro and Sao Paulo. The secondary centers are Porto Alegre, Recife (Pernambuco), Bahia, Para, and Ceara.

Practically everything in the way of foreign parts sold in Rio de Janeiro and Sao Paulo is imported direct. In the case of a few items destined for Rio, importation is effected through Santos for reshipment to Rio by rail or highway, due to the smaller expense



involved in importing through the port of Santos, as compared with any other major port of the country. The 2 per cent gold port tax, collectible in Rio, is based on the official value of the imported merchandise. In the case of goods dutiable "ad valorem" the invoice value is taken as the official value. In the case of goods on which the duty is specific the official value is an arbitrary figure, as established in the tariff. At present exchange rates the 2 per cent gold actually amounts to about 15 per cent. This important item, which is payable separately from the import duties, naturally diverts a considerable amount of import trade to Santos which is really destined for Rio. As an example, the local importer of replacement parts would effect a considerable saving on any large amount of goods were he to import through Santos and have his shipment relayed to Rio by truck. As exchange weakens, the rate of the port tax in paper milreis increases. Most of the automobiles imported into Brazil, as well as innumerable other items, are imported through the port of Santos for this reason.

In the case of the secondary distribution centers a portion of the importing is done direct and the remainder is bought in the principal importing centers. Porto Alegre imports approximately 80 per cent of its orders direct—that is, the importers there place their orders with foreign exporters—whereas the remaining percentage is purchased from importers in Sao Paulo and Rio. Recife buys about 80 per cent of its imported parts and accessories from foreign exporters direct and the rest is purchased from Rio importers, with some being purchased in Sao Paulo. Bahia importers receive about 50 per cent of their parts and accessories direct from abroad, while the remainder is purchased in Rio and Sao Paulo. It is estimated that 30 per cent of these items sold in Ceara represent direct importation, while 30 per cent is purchased in Recife and the remaining 40 per cent in Rio. The Para market, owing to its remoteness from Rio, and despite its relatively limited demand, imports about 60 per cent of its parts and accessories direct. The remainder comes primarily from Recife and Rio. When business conditions are normal Para imports a larger percentage direct.

It should be borne in mind that shipping facilities between North American ports and the north of Brazil are fairly satisfactory. That applies also, of course, to the central coast section. The ports along the Brazilian coast from Santos northward may be said to enjoy adequate freight transportation connections with the United States. South of Santos, however, this is not the case, and cargoes destined for Paranagua, Florianopolis, Rio Grande, Pelotas, and Porto Alegre must be transshipped at Santos if they originated in the United States. Occasionally a freighter out from North American ports calls at these Brazilian ports, but this service is not regular. On the other hand, a German line operates a direct service to the Rio Grande do Sul ports named, which is a considerable advantage to German and other European shippers, though the effectiveness of this superior service is little felt in the market for the products under discussion, owing to the limited extent to which European manufacturers compete.

Distribution of most of the replacement parts is effected through manufacturers' representatives who sell on a commission basis to

the importers. The latter are combination importers-jobbers-dealers. In all of the principal distribution centers there are a few larger houses which do most of the importing and jobbing, and these firms always maintain their own retail departments. The bulk of the importing of parts is done by about a dozen houses in Rio, and a slightly larger number in Sao Paulo. The important accounts in the secondary centers seldom exceed six or seven. These importers generally cover the interior of the country that is commercially tributary to their district. The Rio firms, for example, in addition to serving as a partial source of supply for the jobbers in the secondary distribution centers, cover the section consisting of the States of Rio de Janeiro and Espirito Santo. Sao Paulo, through Santos, serves the important States of Sao Paulo and Parana as well as the south of Minas Geraes, in addition to the secondary distributing centers already discussed.

Replacement parts are sold by the dealers especially handling such items as well as by the automobile dealers and a few garages. The garages, referred to here as repair shops (*officinas*) carry parts only for a few of the better-selling makes of cars. Even parts for these cars are not always available in the shops but must be purchased from the importers who act as dealers or from the car dealers. In general, the car dealers do a large part of the repair work on cars which they have sold, and most dealers are obliged by their factories to maintain a stock of the more expendible parts. A number of private repair shops are operated in all Brazilian cities, but these shops ordinarily carry little in the way of parts. These they purchase as needed from dealers in parts. The firms which do most of the business as importers, jobbers, and dealers of replacement parts devote their major attention to that line and allied lines such as accessories, motor vehicles, household electrical devices, tires, etc., while a few, especially the larger firms, carry on a more varied class of business, their interest extending to some other lines not allied with the automotive business.

Certain trends are to be noted in the development of the business in parts in Brazil. Some of these are not as yet well defined, but it is the belief of many observers here that a tendency exists which may have the effect of somewhat altering the distribution system adhered to in the past. Automobile dealers, for instance, are practically all losing money. The only exceptions are the dealers selling the lowest-priced cars, and not all of these have realized a profit on their operations during the past year and a half. As a result, it is likely that a marked change will come about in the merchandising of automotive vehicles. Individuals and firms have been convinced definitely that there is little profit in this business, considering the risk involved, as judged by the example of those who have gone into the business in recent years and for various reasons lost all or a good part of their resources. It is the opinion of many observers of the situation that the practical impossibility of interesting the local merchant in this business on an importer-dealer basis, as in the past, will force the manufacturer to go further in merchandising his product than heretofore. Factory-branch sales offices in Brazil, a system that has been tried by one North American manufacturer with excellent success at first, is believed by many as the solution to the problem of distribution of vehicles faced by the exporter.

Another theory of the line along which distribution of vehicles will develop is that of consigning stocks to a distributor. Certain it is that the day is past when, except for the cars which have a ready acceptance on account of popularity or price, the manufacturer can locate firms in Brazil to purchase from the factory on short-term payments. This tendency will, of course, affect the distribution of replacement parts. As mentioned above, the automobile dealers do an important share of the parts business. One way in which this would come about is through the more complete stock of parts that a factory-selling organization would carry as compared with that carried by the average dealer, who always is reluctant to tie up capital in materials of this nature, due to the risk involved of not being able to dispose of them.

In the above paragraph the subject of consignments is discussed as one way to bolster the present demoralized distribution system of automotive products in general and vehicles in particular. It is realized that this principle is one that has never been accepted by the United States manufacturer of this class of merchandise. Developments have made many changes here during the past two years, however, and the new situation calls for no little amount of study on the part of exporters if their products are to be properly and effectively distributed. No recommendation is made herein for or against greater participation in marketing by export organizations. It is essential, however, that important United States exporters lose no time in studying this changed situation with a view to adopting a policy that will provide a more satisfactory means of distribution than most of them now possess in the Brazilian market.

This situation is less serious in the case of replacement parts than vehicles. The manufacturers of standard parts will continue to deal through agents for the most part. However, their sales would probably be affected by any step taken by car manufacturers to maintain their own sales organizations and stock rooms, for the manufacturer would thus compete with the regular importer of parts. This, therefore, would indicate a possibility of the individual parts manufacturer losing ground to some extent, in so far as his distributors would feel the inroads of the factory organizations selling vehicles and parts.

Another trend that has been noted in recent years is toward the manufacturers' agent and away from the exclusive distributor. While many lines are still handled by such distributors, the greater part of the replacement-parts lines sold here has been handled by agents working on a straight commission basis for many years. It is the consensus that the percentage of lines of this nature sold through agents is slowly increasing, by virtue of the tendency on the part of the distributing-jobbing organizations to get away from the handling of any one particular make of a certain class of product. These firms believe it is to their advantage to carry a stock of the better-known makes of parts, rather than of one make only, despite the fact that as exclusive distributors handling only one line they stand to earn a slightly larger profit on the single line handled, due to the elimination of the agent's commission. There are exceptions to this, of course. Where there are but one or two outstanding makes of any given part, the distributor naturally desires to have

the sole distributing rights, but in such cases the manufacturer, realizing his advantage, refrains from limiting his sales to the customers of any one distributor and generally works through an agent who is supposed to be able to cover the entire distributing trade.

#### TERMS OF PAYMENT

The basic terms of payment for parts imported from the United States are from 60 to 90 days' sight draft. In many cases the American exporter has granted up to 120 days, particularly during the past two years. The German and Italian exporters generally grant the latter terms as a matter of course. During the prosperous period in 1928 and early 1929 more rigid terms were demanded by the foreign, particularly the North American, exporters, and were secured. During the past year, however, possibly owing to the slow demand from all sources, including the domestic market in the United States, exporters have been willing to go somewhat further in the granting of credit terms to firms believed to be sound but temporarily in need of this help. There are a few, very few, firms that are still in a position to avail themselves of the discount that is enjoyed by being able to meet their obligations at sight.

The few domestic parts sold are marketed on terms ranging from 30 to 90 days. It should be noted, however, that terms established in the domestic market are subject to a great deal of elasticity in the matter of fulfillment. In times such as the present it is not at all unusual for local firms to concede repeated extensions of bills falling due, and the early part of 1931 witnessed the end of a moratorium march on all commercial obligations originating in the country. This moratorium applied to bills falling due between October 3, and December 31, 1930. The ultimate date of payment for such obligations was March 15, 1931, in the Federal District and March 30 in other parts of the country. Now that the bills that enjoyed this respite are falling due, it is a foregone conclusion that many debtor firms will not be in any better position to meet these obligations than they were before the moratorium, and in an endeavor to prevent the failure of the debtors, creditor firms will in most cases continue to grant extensions of the maturity dates of obligations by tacitly agreeing to refrain from forcing debtors into bankruptcy by protesting unpaid bills.

This situation is somewhat more acute now than in ordinary times, but even when credit conditions are less serious than at present, it is not unusual for creditors to refrain from protesting overdue bills. This leniency of creditor toward debtor is a characteristic of the Brazilian credit system and is rarely understood by North American firms unfamiliar with Brazilian conditions and psychology.

#### ADVERTISING

Very little advertising of replacement parts is done. Some of the few automotive publications carry advertisements of such parts as generators, piston rings, etc., but the total amount of advertising is small. It is believed that the most effective media for parts is direct circularization of the trade and also possibly newspaper advertising. In many cases, a liberal advertising allowance to the distributor is

necessary to the introduction of makes of parts hitherto little known in the Brazilian market.

In handling advertising of these products in Brazil it should be borne in mind that there are two distinct classes of automobile owners in all Brazilian cities—the private owner and the operator of the “for hire” car. Until a very few years ago the latter class of owners outnumbered the former. Means should be devised for appealing in advertising matter to these two classes of purchasers. In many cases the taxi operator is the higher grade customer, for he knows more about the mechanism of his car than the average private owner and gives preference to quality parts as being the cheapest. Some of the leading distributors of parts publish house organs in which space is given to the parts handled by them, and this is believed to be particularly effective as a means for reaching the taxi class, as they are listed by the principal distributors to receive such publications.

#### ACCESSORIES

The present demand for accessories is estimated to be approximately 60 per cent below that of two years ago. This is primarily due to the general business situation, involving greatly reduced demand, heavy stocks carried by importers at the end of 1929, and unfavorable exchange. Accessories have suffered to a far greater extent than parts, for the economic situation of the country has forced the consumer to dispense with many of the items of limited utility that he formerly installed on his car. At present, as a result of the tremendous decline in imports throughout 1930, stocks on hand are relatively small, but orders for new importation are extremely difficult to secure because of the unsatisfactory exchange level and the unwillingness of importers to commit themselves for more than they know can be liquidated in a minimum of time. Agents state that firms which regularly ordered \$1,000 of any given accessory item now feel reluctant to order more than a tenth of that amount.

Agents and importers of accessories also state that the manufacturers have seriously cut into their trade during the past two or three years by delivering cars with many accessories, as original equipment, which they formerly sold in large quantities.

Accessories most in demand include electric horns, for which there is a fair sale in ordinary times, particularly of the higher-priced makes. These are generally of American manufacture, though there are some German horns on the market. Hand jacks have a fair sale, with car dealers doing a large part of the business. A fair business is still done in the supplying of windshield cleaners to owners of old cars. The vacuum-type cleaner sells best.

Only the spare parts of lubricating systems are sold here. The biggest demand is for the nipples, which are of American and German origin. Greasing machinery sells fairly well, all being of American make. The following comments are made about the other principal accessory items.

There is a small demand for chains, largely supplied from the Sao Paulo factory. Hood, radiator, and tire covers are all of domestic

make. Lenses and lamps are locally produced. License plates are supplied by municipal governments which have them made locally. Rear-view mirrors, having a small sale, are locally produced. Taximeters are practically all of German origin, with the demand reduced. Tire gauges have a small sale. Wind-shield wings are now supplied by a manufacturer in Sao Paulo. Very few novelties of any kind are sold. There is no demand whatever for body hoists, bumpers, glare eliminators, radiator heat indicators, head, rear, or stop lights, parking lights, theft-proof locks, luggage carriers, trunk racks, tire pumps, radiator shutters and shields, shock absorbers, speedometers, wind-shield wings, and car heaters.

It is estimated that about 70 per cent of the accessory business is controlled by American manufacturers. About 20 per cent is locally produced and the remaining 10 per cent is of German origin.

#### DISTRIBUTION

Accessories are marketed in much the same manner as replacement parts. The bulk of the business is handled by manufacturers' representatives, who sell to the importer-jobber-dealer combination referred to previously in the discussion of the distribution of parts.

There is little doubt but that the best type of representation is the manufacturers' agent. This class of representative must, however, be on sufficiently good terms with at least a majority of the more important promoters to enable him to do justice to his principals abroad. He must also be equipped to protect his principals against credit losses. The more efficient and active representatives here keep closely informed regarding the credit standing of their customers, particularly in times such as the present.

The fact that there is a marked scarcity of active and reliable firms in most Brazilian commercial centers with a knowledge or experience in the accessories business has resulted in the better firms becoming heavily laden with lines, many of which they are not in a position to handle satisfactorily. In a few cases agents handle competitive lines. In such cases, they generally come to an agreement with one of their better customers whereby he undertakes to handle one of the competing products on an exclusive basis, and a similar arrangement is made with another outstanding importer to handle the other competing line. This can not be said to represent as effective representation as could be desired, since neither of the competing manufacturers secures the fullest possible distribution or coverage.

There are other factors to be considered, however, before condemning this matter of permitting a single manufacturers' representative to handle two competing lines. In some markets the one manufacturers' representative may be so outstanding superior to the others available that even on the basis described above better results are obtained than by the appointment by one of the competing manufacturers of an agent of less ability. Still another point to be considered is the absolute inability of some manufacturers to locate possible agents, owing to the small number of firms engaged in the line of business and the fact that all of them already represent similar types of products.

The importers, who also act as jobbers and retail dealers, carry stocks of accessories. As remarked above, stocks now are small, owing to the unwillingness of importers to invest funds in large amounts at present because of the exchange risk and the general shortage of ready funds combined with the small consumer demand.

It is a matter of considerable doubt as to whether the present distribution channels adequately cover the entire Brazilian market. It is a common failing of manufacturers' agents and distributors in Rio de Janeiro and Sao Paulo to exaggerate their ability to cover the whole country when dealing with a manufacturer for his representation in Brazil.

Visits to the principal distributing organizations from Pernambuco northward prove that in some cases the Rio and Sao Paulo houses are not known there. In a few cases it is probably desirable to name firms for the whole country which may be located in Rio or in Sao Paulo, but it is believed that this is an unwise procedure as a general rule. The most satisfactory coverage will be obtained by the appointment of different representatives in each important center such as Rio de Janeiro, Sao Paulo, Porto Alegre, Bahia, Recife, Ceara, and Para. Ceara does not rank in importance with the other cities mentioned, but it is somewhat isolated and it is believed that a larger share of the available business would be available to the more important local firms than to the small firms serving as a sub-agent of the agent in Rio or some other city. In some cases, of course, the subagency may be in the hands of the more important firms in these secondary centers, but such firms would unquestionably prefer to represent the foreign manufacturer or exporter direct. In cases where the agent for the whole country, located in one of the principal cities, assumes the credit risk, there is something to be said in favor of the single representative for the whole country, for it is easier for the agent in Rio to maintain credit information on his remotely located customers than for the exporter abroad to do this.

Very few American exporters work with agents in Brazil on that basis, so that this justification for the single-agent method of representation does not exist. Another justification for it is the fact that the business in the important centers of Rio and Sao Paulo so greatly outweighs that available in the other parts of the country that the manufacturer or exporter is at the mercy of the agent, to a certain degree. Agents in these two cities often refuse a line unless they can secure the sales rights for it for all of Brazil. Such firms may be outstanding in one or the other of those two important markets, and in some cases in both, but they may have only a skeleton organization in the outlying sections of the country, decidedly inadequate. Here the North American exporter is faced with the problem of availing himself of the services of a good or even superior type representative in the more important centers and sacrificing the less important yet worth-while districts, to a certain extent, at least. Naturally the only reasonable choice is made—that of securing the best possible distribution in the more important communities. As a result, it may be said that the average case shows the North American exporter to be securing not more than 75 per cent coverage, at best. Perhaps this is considered to be a good average. Such matters must be decided by the exporter.

The above exposition of the situation in which the average North American exporter of accessories, and to a considerable extent the exporters of many other allied lines, finds himself, shows the nature of the prevailing situation. It is probably impossible for any exporter to secure perfect coverage in a market as extensive (geographically) as Brazil. It would be prudent, however, for the exporter to guard against the claims of small or mediocre agents, who usually insist on the sales rights for a product throughout the entire country, when they rarely have more than correspondents in the secondary centers, and not infrequently are without even this connection in some of the remote sections from Rio and Sao Paulo.

The reason why the manufacturers' agent, as a general rule, is not better represented in the northern or southern sections of the country is the difficulty and expense of travel to those districts. Travel north from Rio is very slow and time consuming, particularly north of Pernambuco. The alternative is air travel, available weekly to the extreme north of the country. This is expensive. In any case, it is expensive to cover the north coast of the country, not to mention the physical inconveniences to be encountered, and so representatives of American concerns sent out from the United States ordinarily limit their Brazilian contact to the two major commercial centers easily reached from the United States (Rio and Sao Paulo), and the firms in these two cities either completely ignore or greatly restrict their connections with secondary districts of real importance.

Travel to the extreme south of the country from Rio or Sao Paulo is almost as completely shunned. Service by boat is equally poor. The air service is expensive. The reasons why the southern markets of the country are often completely ignored by travelers visiting Brazil for the purpose of appointing agents or distributors, and why the Rio agents of North American firms limit their sales, in many cases to those they can make in the two major markets, are (1) the expense of covering the outlying districts and (2) the inconvenience of travel to them.

The writer has been careful to point out that there are firms in Rio and Sao Paulo that constitute exceptions to this rule, in practically all classes of merchandising, for these exceptions either have satisfactory connections in these distant sections, or they maintain travelers, but the firm thus giving its North American principals almost perfect coverage is exceptional and may be said to have attracted so many lines to itself as to make it unavailable to exporters just entering the market.

#### TERMS OF PAYMENT

The payment terms on which business is done here in accessories do not vary from those extended by manufacturers of replacement parts. As already stated, the average terms are now 90 days sight or 120 days, date of invoice. It is unnecessary to concern the manufacturer or exporter with the exceptional interpretations that have been placed on the meaning of "sight" terms such as sight of goods, which has been argued here as the significance of this term. Similarly "date" terms have been claimed to refer to date of shipment, as well as other dates, but date of invoice is the commonly understood significance of this term here as elsewhere.



Accessories are stocked primarily by the wholesale and retail dealers. Service stations in Brazil do not as a rule stock this class of goods. There is a small number of organizations in the larger cities that are privately operated by individuals with comparatively little capital which in some respects resemble service stations. They may be operated in connection with garages, and in addition to offering for sale gasoline, oil, tires, and a few parts for the more popular makes of cars, they occasionally carry a very meager supply of accessories. Very few car agencies handle accessories. The exception to this rule is the fairly large establishment that does a varied business, including the sale of cars, tires, parts, accessories, and in some cases the lines handled by such organizations are still more varied, extending to electrical household devices, machinery, motor boats, motor cycles, etc. The principal outlets (retail) for accessories are such firms as these and the specialized dealers in parts and accessories.

#### GARAGE AND SERVICE STATION EQUIPMENT

Considerable improvement has taken place in recent years in providing automobile servicing. Originally the car dealers handled the greater part of this work, while at present it is in the hands of the privately operated garages and service stations. A few of the car dealers whose sales in the past warranted it maintain good shops where repair work is done. Others, whose turnover has been and still is insufficient to justify the employment of high-grade mechanics to service their cars, are not able to offer very satisfactory service. Such dealers have not been interested in setting up service stations to handle all makes of cars because they felt that their business was strictly that of selling vehicles, and they have limited their expenditures for a servicing organization to a minimum.

In all Brazilian cities there are well-trained mechanics, and while the number of high-grade men is undoubtedly small, there is adequate mechanical skill for the average repair or adjustment job.

The items of garage equipment most in demand are pressure washer machines, compressors, auto lifts, wrenches, grease guns, jacks, garage tools, portable drills, and valve grinders. This statement is not meant to convey the idea that there is an active demand for these articles. The items named are merely enjoying some slight movement, whereas practically all other related items are experiencing a period of almost complete stagnation so far as orders for new importation are concerned.

The following comments are made on conditions regarding the sale of garage equipment. Air compressors have a fair sale, which has increased considerably in recent years but at present is inactive. Heretofore all air compressors supplied were of American origin, but some locally produced items are now appearing on the market. This fact applies also to auto lifts. Battery chargers sold fairly well until recently, and are mostly American products. There is only one brake-testing machine in Rio de Janeiro, and there is no further demand. Pressure car washers sold fairly well until the depression, and were all of American manufacture.

Cylinder-boring machines enjoyed a fair demand until recently. Cranes supplied are mostly of local manufacture, but there is no business at present. The demand for garage tools is greatly diminished. They are supplied chiefly by the United States and Germany. Gasoline pumps are generally furnished by petroleum companies which purchase through their home offices. One of the largest users employs a French pump. All others are American. The pump made in Sao Paulo sells only in small quantities and chiefly to companies distributing motor alcohol, particularly in the northern section of the country. Sales of hydraulic and mechanical jacks are reduced. Most jacks are American.

High-pressure chassis-lubricating systems and grease-dispensing systems are inactive now. They had begun to sell about two years ago, and filling stations are all equipped with them. Private garages greatly increased their use during the last three years. American sales of oil and grease guns is declining in the face of German competition. Oil-dispensing pumps have small sale. Petroleum companies supply these through orders placed by the home office. Private garages purchase from local importers. The sales of paint-spraying equipment were very satisfactory until 18 months ago, since when it has declined rapidly. All equipment is American. Portable drills are still selling in small volume, with American makes predominating.

Sales of reamers are greatly reduced. These practically all come from the United States. Tire-repairing machines, tire changers, and vulcanizers enjoy a limited sale. Very little towing and salvaging equipment is marketed, at least half of which is of local manufacture. Valve grinders began to enter the market during the past two years and are now beginning to become known. There was formerly a good sale for welding outfits, but at present no demand exists. There is a fair demand for wrenches. German products sell best, due to a price advantage. The remaining equipment is mostly American, with a few high-class English and Swedish items. Wheel-alignment equipment is not known in the Brazilian market.

Practically all the equipment used is imported from the United States. The only competition, at present insignificant, promises to come from the local manufacturer of air compressors, auto lifts, cranes, towing and salvaging equipment, and vulcanizing equipment.

A Sao Paulo manufacturer is beginning to manufacture these items, and with the continuation of the present low rate of milreis exchange or further decline, this competition may develop to the point of proving an obstacle to the sale of the corresponding American equipment.

Despite the cheap labor available, considerable mechanical equipment has been installed in the garages and service stations of the more advanced cities of the country. In the remote districts it is practically out of the question to sell such items as car washers, as the daily wage paid to a laborer doing that class of work in the secondary cities along the north and south coasts of the country does not exceed 25 cents at present exchange rates. Aside from the low labor costs, and the fact that many of the garage and service-station operators are individuals of small capital and completely uninformed as to the value of modern mechanical equipment that

they may never have seen, there would seem to be no insurmountable obstacles in the way of introducing these devices. This is proved by the fair rate of success attained by the merchants handling such equipment in Rio and Sao Paulo during the past two or three years, where wages are only slightly higher than in the other coast cities. Constant effort and better general business conditions will result in an increased sale of this type of equipment. The absence of power with which to operate these devices can not be considered as a restricting influence on their sale, for it may be taken as a rule that automobiles are not found in Brazil where power is not available. The few exceptions to this rule are of no importance.

Every automobile dealer has a garage (service station) as has been previously mentioned, but there are many others privately operated. The number of the garages maintained by dealers is small as compared with that operated by individuals or firms specializing in repair work, owing in part to the small number of automobile dealers in these cities, particularly during the past year and a half, when greatly reduced vehicle sales forced many dealers out of business.

For this class of equipment the same distribution problems are encountered as must be faced by the parts manufacturer. In view of the extensive and detailed treatment given that subject elsewhere in this report, no further space need be given to it.

Rio de Janeiro and Sao Paulo, as in the case of most imported products, offer the chief markets, with Porto Alegre, Bahia, Pernambuco, and Para to be considered of secondary importance, the last named falling far behind any of the others in importance but its area can not easily be reached from the other centers.

The demand for tire-changing equipment was practically nil until a short time ago. Through active effort manufacturers' agents and distributors have demonstrated the value of such equipment. Still only about 10 per cent of the total tire changing in the larger cities is done by special equipment. The rest is done by hand. In the secondary centers very little tire-changing equipment has been sold. Tire-repair work is done by a class of business man known as the "borracheiro" (literally "rubber worker"). These men maintain small shops, sometimes in a garage or service station, where they rent a small space and work on their own, and sometimes in small quarters not connected with service stations. These men usually have strong young assistants who with remarkable speed and apparent ease mount and dismount tires from rims.

The sales methods to be followed by the North American manufacturer of service-station equipment may be said to follow the general rule laid down in the foregoing sections wherein the various types of representation, with indications as to the most suitable, were discussed. For most lines the manufacturers' agent is more satisfactory, particularly at this time. Were it possible to interest local distributors in the stocking of such equipment, it would unquestionably be to the advantage of the exporter to work through that class of organization. The sales of the number of units of this class of equipment would, in the nature of things, be only a small fraction of the volume of sales of units of most repair parts and all accessories. Hence a reasonably small stock of air compressors, high-pressure chassis-lubricating equipment, paint-spraying equipment, auto lifts, etc.,

would put the importer in a much better position to make sales than the manufacturers' agent who sells from a catalogue.

But in the absence of importing firms which are willing to stock this equipment it is useless to discuss that class of representation. The extremely slow consumer demand for these articles and the extremely uncertain exchange situation makes it impossible to interest importers in importing these devices for stock. Their only interest in importing is in being able to fill firm orders, and these the manufacturers' agent is able to handle. With a return to business conditions somewhat more nearly approximating those of the era 1927-1929, the importer would probably be the preferable type of organization to handle the heavier and more costly types of service-station equipment.

The terms that must be quoted by American exporters to this market depend upon the extent to which they are willing to meet the terms offered by their competitors, particularly those in Europe. Since European manufacturers play a minor part in this business the question resolves itself into one of offering the minimum terms acceptable to the customer. As in the case of parts and accessories, terms that American exporters were obliged to extend were formerly 60 days sight or 90 days date, as a general rule, but during the past two or three years these terms have been lengthened to 90 and 120 days, respectively, with a discount off for cash payment. This cash discount is from 5 to 10 per cent in some cases, depending upon the extent of the competition.

German exporters for a short time past have granted up to 120 days date terms without interest, instead of the 6 per cent interest formerly charged. It is understood that some North American manufacturers shipping to this market are meeting these terms. All of this business is now so highly competitive, particularly in the principal markets, that the best terms from the standpoint of the American manufacturer are those least onerous to him. No set rule can be established regarding terms, due to the varying character of the firms to which the exporter ships. A good account, from the standpoint of volume of business and certainty of payment, will naturally expect, and originally receive better credit terms than the casual or small buyer.

The credit situation should not be a difficult one to solve at present, for so readily may weak firms find themselves in a position of not being able to meet their commitments owing to the difficulty now being experienced in collecting outstanding accounts, the lack of business movement, and the unfavorable exchange, that no business should be accepted unless the credit risk is known to be good.

It can scarcely be said of the Brazilian market that there is a growing recognition of the need for better and more modern service and garage equipment. Those owners of service stations and garages with some mechanical equipment which is not found in the installations of some of their competitors, naturally feel that they are extremely well equipped. Those not so equipped are either unable to afford these devices or are extremely conservative in the local sense and feel that their present equipment is ample. A few exceptions to this rule exist, however. Auto lifts were introduced by the

petroleum companies in 1928 and there has been a slow but steady tendency on the part of service-station operators to install similar equipment. At the moment, however, equipment of this nature can be sold on very rare occasions, but it is believed that once an upturn in business and general purchasing power occurs, there will be a slow development toward better-equipped service stations and garages.

### BRITISH GUIANA

**Replacement Parts in Fair Demand—Accessories Requirements Decreasing, With a Rather Promising Outlook for Service Appliances, Although This is Naturally Restricted by the Size of the Market**

Vice Consul John V. Swearingen, Georgetown

Motor-vehicle registrations as of January 1, 1931: 1,346 passenger cars, 179 busses, 149 trucks.

#### REPLACEMENT PARTS

Imports of parts and accessories into British Guiana during 1930 amounted to \$30,016, of which amount the United States furnished \$17,519, the United Kingdom \$6,027, and Canada \$5,720.

Parts most in demand include brake lining, fan belts, spark plugs, springs, piston rings, gears, and generators.

The actual mechanical parts of foreign cars are ordered from their respective manufacturers, but many of the other items in the list are supplied from the United States. The import figures show that American lines are gaining on similar foreign competitive products in spite of the preferential duties against them.

The distributing center of this colony is Georgetown, and the proper channels are through automobile dealers, operating garages, or hardware dealers, as there are no exclusive dealers handling parts and accessories.

The usual terms are 30 to 60 days with approved credit, otherwise sight draft attached to documents, or merchandise paid for by the United States representatives of local firms.

#### ACCESSORIES

Most of the cars imported into British Guiana are completely equipped, thereby decreasing the demand for accessories, with the possible exception of bulb and electric horns and tire gauges.

Accessories are marketed through automobile dealers operating garages, and with the exception of a few articles sold by hardware stores, this is the best method. An exclusive distributor in the Colony would sell to other garages and also retail to his own customers, and it is thought more sales could be obtained through this method, thus eliminating commission agents, who may secure an agency, but through lack of sales training and initiative, exert no particular effort to sell the merchandise.

Limited stocks are carried, and one car agency may have several competitive lines.

### GARAGE AND SERVICE-STATION EQUIPMENT

There are adequate automobile service facilities in this territory managed by efficient mechanics using modern garage and service-station equipment operated by electricity as the work requires. Tires are changed by hand tools, tubes repaired, and casings vulcanized by repair shops in connection with the garages.

More than 90 per cent of all service equipment is of American manufacture, with a steadily increasing demand. The method of distribution is through automobile dealers operating garages, who handle these items almost exclusively with the possible exception of small tools, wrenches, and tire gauges, which would also be stocked by hardware dealers.

The repair shops and garages are well equipped to give any mechanical assistance and have machinery to make many parts which may be urgently needed. As previously stated, this equipment is almost entirely of American manufacture.

Newspapers have been the sole medium of advertising, but it is suggested that the use of individual letters, folders, attractive window displays, and personal solicitation would increase the sales of many items.

There is a duty of 40 per cent on articles manufactured in the United States and a duty of 20 per cent on imports from the United Kingdom or British possessions. Although the American items are in demand, the preferential duty makes them more difficult to sell.

## CHILE

**Parts Market Has Shown Steady Development—American Accessories and Garage Equipment Lead With Increasing Competition From European Sources, Especially France and Germany**

Assistant Commercial Attaché Harold M. Randall, Santiago

Motor-vehicle registrations as of January 1, 1931: 24,138 passenger cars, 1,475 busses, 10,632 trucks, and 676 motor cycles.

The Chilean market for replacement parts, accessories, and garage and service-station equipment may be characterized as being in the formative stage. Increased registrations and the correspondingly large numbers of old-model cars are expanding the demand for parts, whereas the adoption of standard equipment of many articles heretofore considered as accessories, has tended to decrease the market for these products. Old cars are being dismantled in greater numbers and the salvage parts enter the market in competition with new articles.

The general unsettled economic conditions in Chile complicate the situation, but sufficient features are clear to portray the probable trends of the future.

### REPLACEMENT PARTS

Items that enjoy good sale on the Chilean market include ball bearings, bolts, clutch facings, springs, gears, rim parts, pinions, and brake linings. Those enjoying a fair demand are roller bearings, pistons, piston pins and rings, body-upholstery materials, drive

shafts, and universal joints. Plain bearings are somewhat handicapped as they are generally made of bronze, which pays a higher duty. Roller and ball bearings of European manufacture generally sell at a lower price than those of North American origin. The assortment available, however, is so limited as to give preference to the American article. Spark plugs do not enjoy the sale one might expect, owing to the fact that the car owner has not yet been made to appreciate the advantage of changing plugs from time to time. Forgings, body hardware, and upholstering materials are imported by the body manufacturers and are seldom carried by the regular parts dealers. Rims have a high landed cost owing to their bulk. The sale of ready-made shims is limited, the market relying upon the use of shim stock. Springs are manufactured locally, but the imported product is preferred, owing to its superior quality.

It is estimated that at least 95 per cent of the automobiles sold in Chile come from the United States and Canada, likewise it is thought that no more than 3 per cent of replacement parts for North American made cars come from Europe. A few of the European manufacturers make such parts as cylinder-head gaskets, shims, feed lines, etc., but their assortment is usually so limited as to make their sale unimportant in size, regardless of the fact that they are offered at low prices. Replacement parts for European-made cars all come from Europe and are practically all handled by the car dealers.

European competition so far as replacement parts are concerned is very limited. In ball bearings, competition has been the most keen since the European articles sell at a low price, but their limited assortment has been handicapped and the North American producer is still the chief supplier of the Chilean market.

The chief method of distribution of parts is that of direct importation to the account of the larger importers or distributors. Car dealers are also, as a general rule, worth-while importers. Direct importation by those with insufficient capital, such as the smaller dealers and garage owners, is an unwise practice, owing to credit risk and to the comparative costs attendant to small shipments. This same general statement is also true for accessories. For articles of limited demand it is best to give the representation to some accredited dealer and protect him in its sale. This exclusive distribution feature will, as a rule, be confined to a comparatively limited area such, as Santiago and Valparaiso, unless the dealer has a large enough organization to regularly canvass the whole country. This is also true as regards accessory and garage equipment. It is true that such a policy usually means that the manufacturer must have several distributors in the country, which in itself is a disadvantage. On the other hand, there are so few representatives in Chile capable of properly covering the entire market that the foregoing method is essential from a standpoint of expediency alone.

The centers of distribution for replacement parts, accessories, and garage equipment are in the order of their importance: Santiago, Valparaiso, Antofagasta, Concepcion, Iquique, and Coquimbo. The first two serve the central region of the country; Concepcion the south and the others in the north. To the south might be added the city of Valdivia.

The method of distribution employed in the sales of replacement parts has experienced two distinct changes since the advent of these products into Chile. As early as 1916, there were several distributors of replacement parts, and practically without exception they were also distributors of automobiles. At that time the only firms capable of financing the importation of automobiles were the large general merchandising houses whose activities extended over a broad range. In other words, these houses were the general importers of practically every line of merchandise finding large sales in Chile. Stocks of automotive parts were small and prices were high. There was no competition owing to the fact that each car distributor was the only one who had available the spare parts necessary for his make of car, and hence the car owner had to buy from him.

It was this price situation that was primarily responsible for the first sharp change made in methods of merchandising. The large capital essential to the importation of motor cars was not necessary for the importation of a limited line of parts; consequently, several individual firms, not car importers, began to import replacement parts and sell them in competition with the car distributors. Naturally their stocks were also limited to the parts in most demand and for the most popular cars. The parts were confined largely to gears for the differential axles, springs, brake linings, valves, and bolts.

After the World War there arose in the United States the specialty manufacturers who, independent of the motor car factory, manufactured spare parts. Within several years Chile was thought to be one of the best parts markets in South America, and by far the greater portion of these parts came through the independent importer rather than through the automobile distributor.

A curious situation existed up until at least 1927. This was the method in which retail business was carried on through the chauffeur. Comparatively few cars were operated by the owner. Instead, a chauffeur was placed in charge of everything pertaining to the car. He not only drove the car, kept it clean, greased and oiled it, but he also made all the purchases, charging them, of course, to the account of his employer. There developed a very unhealthy situation owing to the purchasing power exercised by the chauffeurs. The better parts and accessory dealers tried to fight the situation but without success. Consequently practically every dealer is said to have kept his commission account book and regularly paid the chauffeur a commission on the purchases which he made and charged to his employer. Since 1927, however, owner-operated cars have increased and the situation above described does not now prevail to any noticeable extent.

Very recently there has been a trend back to the car importer as the source from which replacement parts can best be obtained. This situation has been brought about by several factors: First, the increasing number of new models of cars as well as the entrance of new makes, has made it next to impossible for the parts importer to carry a sufficient stock to satisfy his clientele. Furthermore, some of the car distributors have realized the necessity of the service item in their sales campaign and they are consequently stocking a wider variety of the parts needed. They have also taken advantage of the specialty manufacturer, and where the policy of their home company



permits, they have purchased at the lower prices, thus putting their merchandise on a competitive price basis with that of other importers. Consequently the activity of the strictly parts dealer is now limited to the popular models and makes and to the parts in most common demand. This has been necessary owing to the capital involved.

#### ACCESSORIES

Accessories showing a good demand include radiators, heat indicators, jacks, headlight lenses, rear-view mirrors, tire pumps, shock absorbers, bumpers, tire gauges, bulb horns, windshield wipers, and windshield wings. Nonskid chains find a good demand in the south of Chile with sales in the central zone fair and in the north small. Only the hardware for the wind-shield wings is imported, as the glass is supplied locally. Articles enjoying a fair demand are tire covers, electric horns, theft-proof locks, lubricating systems, and luggage carriers. Bumpers and some luggage carriers and trunk racks are manufactured locally.

It is estimated that from 50 to 60 per cent of the accessories come from the United States, the remainder being furnished by Germany and France. The predominance of the American-made accessories is due, at least in part, to the predominance of American-made automobiles.

The trend of distribution through the car dealer as mentioned under the heading of replacement parts has not been the case with accessories. Likewise, the market for accessories, contrary to that for replacement parts, has decreased considerably. The car importer, as a rule, has very little interest in accessories for two reasons. Cars now come equipped with many items formerly considered as accessories, and the dealer usually finds that his car purchaser, instead of being willing to buy car accessories, wants them given to him as an inducement to purchase the car. What few accessories are sold are largely sold by the dealer handling parts and accessories exclusively. Stocks are kept as nearly as possible at a minimum. Competitive lines are often carried by dealers unless they have an exclusive control over one line. Owing to the comparatively light demand for accessories the methods of distribution which require the appointment of individual distributors in each geographical area is probably the most feasible, although the commission agent is better for those having large sales.

#### GARAGE AND SERVICE-STATION EQUIPMENT

At least equal to the parts business from the standpoint of percentage increase is that of garage and service-station equipment. Only in the past few years has much attention been given to the modernizing of the garage. The gasoline and oil service station is yet modern only to the extent of having modern pumps and oil tanks. It also has, as a rule, a small air compressor, but this is the limit of its equipment. Usually the gasoline and oil are dispensed at the curb. There are no service stations such as those found on the corner lots in cities in the United States. The service station here may carry tires and tubes, tire gauges, tube patches, etc., but seldom more. The garage service station, on the other hand, is rapidly going

through a transformation. Only a few years ago the garage was an open-air space with a dirt floor and with practically no equipment other than hand wrenches, jacks, and similar tools. Now there are probably five modern garages, and undoubtedly this number will increase as the demand for their services develops.

It is very difficult to find properly trained mechanics in Chile. The training is limited to experience obtained by working in a garage. No schools of this nature exist. Naturally, however, the number of those capable of doing a good repair job is rapidly increasing.

Items under this heading that enjoy a relatively good market in Chile are wrenches, welding machinery, towing and salvaging equipment, greasing systems, garage tools, automobile lifts, and air compressors. Those enjoying a limited sale but having greater possibilities are battery chargers, brake-testing machines, cranes, cylinder-boring machines, hydraulic and mechanical jacks, portable drills, tire changers, vulcanizers, valve grinders, and wheel-aligning equipment.

Local production of air compressors, auto lifts, battery chargers, cranes, oil and grease guns, and tire-repairing machinery is encountered, while Germany competes heavily in the market for special tools, benches, etc., and strong competition from Great Britain is noticeable in a general way. At least 70 per cent of the total garage equipment imported comes from the United States. It is always probable that more of this equipment will be purchased from local manufacturers who enjoy tariff protection, which under the present governmental policy will no doubt be increased as the local producer demonstrates his ability to meet the demands of the domestic market.

The principal inducements for purchasing European products are price and credit terms. They constitute an important consideration for Chile, which is distinctly classed as a price market. Regardless of this, quality products are forcing a recognition which will eventually lead to their greater purchase.

Electricity is available at a reasonable rate and offers no drawback to the installation of machinery in garages and service stations. The principal drawback is that there is insufficient work to make profitable the modern installations. Wages for manual labor are still so low that mechanical installations are only justified when there is sufficient volume of work to make them profitable. These installations no doubt will increase. The principal prospects for such equipment are the car dealers who operate their own garages in every instance. It will be several years before the majority of the privately owned garages can afford to install modern machinery. These now outnumber the garages operated by the car dealers by probably five to one.

Tires are at present changed by hand with the use of rim tools. Here again the cost of manual labor is the determining factor, and there is a relatively small prospect for mechanical tire-changing machinery at the present.

During the past two years there has been a growing recognition of the need for better service station and garage equipment. For this reason the demand for material of this sort should steadily increase. At the same time increased local manufacture may offset to a large degree a growing demand for the imported products. Equipment most needed includes brake-testing machines, riveting

machines for brake lining and clutch facing, hydraulic car lifts, mechanical jacks, cylinder regrinding equipment, and wheel-alignment machinery.

In general, 60 and 90 days' sight drafts are recommended. As a rule the 60-day draft carries no interest, but for a longer period interest is charged from the time of shipment until the funds are obtained in New York. The question of interest is an important factor, and if the manufacturer is insistent upon its collection it would in some cases be to his advantage to absorb the cost in some other way, since to insist upon its payment may jeopardize possible sales. On standard and regular but slow-moving articles, such as braking irons, lacquers, varnish, etc., credits up to 120 to 180 days' sight are sometimes granted. In the case of the latter, interest is oftentimes waived on the first 90 days. European firms, especially those of Germany, are often willing to give more liberal credit terms than are the Americans. This attitude on the part of North Americans for granting longer credit is commendable, regardless of the fact that it may at times be the cause of losing sales. It should be remembered that longer-time credits in many cases form the basis for misunderstanding and trade disputes.

The dealers in automotive equipment utilize the principal newspapers, the magazine "Auto y Turismo," published by the Automobile Club of Chile, "The South Pacific Mail," the weekly English publication, and certain other Chilean magazines. They also utilize signboard advertising but do not make much use of motion pictures. Comparatively little attention is centered upon any one or two items, the general policy being to advertise the place of business. No direct circularization of car owners has been resorted to. This method might bring satisfactory results, although for general purposes the newspaper and the outdoor sign offer the most effective media.

The Chilean market for replacement parts, accessories, and garage equipment has been one of comparatively steady development. Beginning with the introduction of the motor car through distributors who were generally the large merchandising houses, the industry has developed to a point where it now stands alone. The trend of a few years ago away from the car dealer as the merchant handling parts has been counteracted by a return to those channels for a sale of these products. The market offers prospects for increased sales of parts and garage equipment, but accessory sales are less than formerly.

Two characteristics should be remembered as far as Chile is concerned. First, Chile has a limited market, and second, it is an individual entity. Relative to the first, there are in Chile at the present time over 36,000 automobiles, trucks, and busses. Consequently, demand for equipment and replacements must be governed accordingly. Equally important is the realization that Chile is a separate market entirely from the region of the River Plate, and it is an error for manufacturers of parts, accessories, or equipment to give to an Argentine distributor the Chilean territory. With few exceptions the Argentine agent would be of little or no service. What is more important, the Chilean merchant resents such an arrangement.

Finally, the present automotive market is in an exceedingly unhealthful condition owing to the existing economic depression. With the return, however, of more normal times there is no reason to believe other than that Chile will continue to be a comparatively good market for American parts, accessories, and garage equipment.

### COLOMBIA

**Demand for Parts Low, Accessories Small, and Service Appliances Restricted—American Participation Nearly 100 Per Cent—Buying Power Limited Because of Economic Depression**

Assistant Trade Commissioner Chauncy T. Langdon, Bogota

Motor-vehicle registration as of January 1, 1931: 8,750 passenger cars, 1,250 busses, 3,750 trucks, 280 motor cycles.

Colombia is essentially an agricultural country and for two years has been passing through a very serious economic depression. This naturally limits its buying power. Automobile supply houses, garages, and service stations, in the sense they are known in the United States, do not exist. Practically no export business with Colombian firms can be done on a cash basis. However, a careful study should be made before credit terms are extended.

### REPLACEMENT PARTS

Repair work and the consequent market for replacement parts does not seem to have increased, in spite of reduced sales of automobiles. Lack of efficient mechanics, high cost of parts owing to transportation charges, and long delay in obtaining them have a tendency to cause the owner of a disabled automobile to discard it entirely, purchasing a new car if financially able, or otherwise going without the services of an automobile.

The items most in demand are ball bearings, brake linings, bushings, clutch facing, driving and timing chains, fan belts, springs (which are often specially made on account of the poor condition of roads), radiator caps (which are frequently stolen), pistons and piston rings, gears, pinions, rims, and rim parts. It is interesting to note that the altitude of Bogota (8,650 feet above sea level) has presented many problems for the internal-combustion engines. Improper carburetion causes insufficient lubrication through dilution of the cylinder oil by gasoline, with consequent friction and wear of moving parts.

The United States supplies practically 100 per cent of this trade. No products are manufactured in Colombia and there is practically no foreign competition. With the exception of special carburetors, cylinder heads, and springs, standard American parts are entirely satisfactory.

Parts are imported almost without exception by the automobile dealers direct from the factory. In the interior cities because they take from four to six months in arriving after being ordered, a very large and complete stock, including the most expensive parts (which in the United States are ordered from the factory as needed) is required, necessitating the investment of considerable capital.

Most dealers are offered terms of draft 120 days after date of invoice. Some manufacturers grant as much as 150 days, while a few give but 90 days. More time is usually allowed for interior cities than for those on the coast, because of the greater time required for transportation. It is not practical to attach documents to the draft, as this causes expensive delay in the progress of the merchandise, and importers insist on using their own forwarding agents at the ports.

The leading distribution centers of Colombia are Bogota, Baranquilla, Medellin, Cali, Cartagena, Bucaramanga, and Cucuta.

The most effective method of advertising is that of circularization (in Spanish), letters to be accompanied by catalogues and prices, and where practical, samples. Newspapers are only occasionally used.

#### ACCESSORIES

Because of the depression, only those accessories which are necessary to the proper functioning of the automobile are in demand at the present time. It is felt, however, that with gradually increasing prosperity there will be eventually a substantial demand for these products.

Accessories most in demand are nonskid chains, electric horns, for which there is a large demand, hand and mechanical jacks, lamps, lenzes and stop lights, tire pumps, shock absorbers, and tire gauges. American participation is practically 100 per cent. No accessories are manufactured in Colombia, and foreign competition is practically nonexistent.

As with replacement parts, accessories are imported almost solely by automobile dealers, direct from the manufacturers. Stocks are generally carried, although these are small at present, on account of the depression. Competitive lines do not appear to be handled by the same company. The present distribution channels do not adequately cover the market, but it is doubtful if any material change in this regard can be made until conditions improve.

Terms are usually the same as those in the trade in replacement parts. Accessories are stocked by car agencies and service stations in limited quantities. Exclusive accessory dealers do not exist.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Little progress has been made in providing adequate service facilities in this territory, owing to lack of capital and lack of efficient mechanics. Experiments of bringing in American mechanics have been largely unsuccessful.

Garage and shop equipment most needed is that which will do the work now done inefficiently by the individual chauffeur or owner, such as lubrication, greasing, valve grinding, carbon removing, tire changing and repair, etc. The following items are most in demand: Air compressors, battery chargers, car washers, cylinder-boring machines, garage tools, gasoline pumps, mechanical jacks, high-pressure chassis-lubricating systems, grease-dispensing systems, paint-spraying equipment, reamers, tire-repairing machines, including tire changers and vulcanizers (American tire companies are providing

these in some cases to their distributors), valve grinders, welding outfits, wrenches, and wheel-alignment equipment. The use of American equipment is almost 100 per cent.

Electric current is generally available to garages on a basis sufficiently economical for operation of service appliances. Tires are changed by hand tools, while repairing with the exception of that done by individual owners or their chauffeurs, is attended to in repair shops.

Most garages, with the exception of those for storage only, are operated by automobile dealers.

The only practical selling method for garage and service-station equipment at present is direct to the automobile dealer. Later, when conditions improve, it may be advisable to sell through manufacturers' agents.

The best terms for selling in this market are those sufficient to allow the importer to actually receive his merchandise and put it into operation before paying. However, the manufacturer can not be too careful in investigating the importer's standing before extending this credit.

The logical distributing areas are Bogota, Barranquilla, Medellin, Cali, Cartagena, Bucaramanga, and Cucuta. On account of transportation difficulties, there is no one main distributing center.

There is a growing recognition in Colombia of the need for better and more modern service and garage equipment, but this can not be ordered with the present lack of finances.

## ECUADOR

### Demand for Replacement Parts Fair, Accessories and Service Appliances Limited—American Products Dominate This Market

Vice Consul Philip K. Tattersall, Guayaquil

Motor-vehicle registrations as of January 1, 1931: 1,423 passenger cars, 174 busses, 822 trucks, and 73 motor cycles.

### REPLACEMENT PARTS

Considering the small number of motor vehicles operated in Ecuador, there is a fair market for replacement parts, and in all likelihood the demand will increase, owing to the fact that approximately 70 per cent of the vehicles have been in service for some time and the older ones will need repair.

Parts in demand are plain, ball, or roller bearings, fan belts, spark plugs, springs, pistons, piston rings, and valves.

Inasmuch as approximately 95 per cent of all motor vehicles are of American manufacture, practically all replacement parts come from the United States, and competition among the various manufacturers is very keen. Foreign competition has no influence on the market, and American products are favored whenever they can be used on cars of foreign origin.

Replacement parts are usually handled by distributors for the makes they represent, but with the exception of the representatives of the leading and most popular motor cars and trucks, stocks are very incomplete and often parts are not locally obtainable.

The terms granted to distributors and dealers of automotive parts and accessories are 60 to 90 days' sight draft, documents against acceptance, although sometimes more favorable terms are given to firms of known solvency.

Some manufacturers are quoting net list prices, others give distributors or dealers 40 to 45 per cent discount off list prices. Quotations are generally f. o. b. port of shipment, although occasionally c. i. f. quotations have been made.

Leading distribution centers are the cities of Guayaquil and Quito, where the majority of automotive vehicles are in use.

No special advertising methods are followed by the distributors or dealers with the exception of newspaper advertisements from time to time. A more extensive advertising campaign for parts, accessories, and garage equipment, together with facilities and service offered by distributors and dealers, would doubtless help the sale of some of the products. Newspaper advertisements, motion-picture slides, and silent salesmen are considered effective mediums for this purpose.

#### ACCESSORIES

Practically all automotive vehicles imported into Ecuador are fully equipped with the usual accessories, and novelties and expensive accessories are scarcely in demand. Accessories most in demand are the cheaper grades of tail lamps, stop, and tail-light combinations, hand jacks, shock absorbers, and tire gauges. For all other items there is only an occasional sale. Owing to the fact that most of the traffic is within city limits, on account of the few passable country highways, there is practically no demand for spotlights.

The American products dominate the market, and it may be safely said that there is no foreign competition in this line. Competitive lines are often handled by the same dealer. Recently there seems to be a better demand for articles such as step plates, folding luggage carriers for running boards, seat pads, and other small items.

Accessories are marketed principally by automobile distributors and dealers as is the case with replacement parts. The usual custom is to buy requirements direct from the manufacturer. The market is small, and therefore it is generally not advisable to give an exclusive selling right to one person; it is believed that better results can be obtained by selling direct to the dealers.

The majority of dealers carry a very small stock of accessories most in demand. In general, stock values average about \$250, although some of the principal dealers carry stock valued at from \$1,000 up.

Terms and other trade usages are the same as those for replacement parts. The present distribution channels cover the market adequately, and in view of the present economic situation it is not believed that there is any room for additional competitive lines unless prices and terms are very attractive.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Little progress has been made in providing adequate automobile service facilities in Ecuador. Although there are numerous individuals, mostly chauffeurs, who call themselves mechanics and are

engaged in repair work, there are in Guayaquil at present only three repair shops, one being owned by a distributor of a well-known American low-priced car and truck, which distributor does not do repair work for any other make. The same situation exists in Quito. In the smaller towns the mechanical service rendered and the equipment in use is still worse, as in many places the number of automotive vehicles is so small that it would not be worth while for a man engaged in this line of business.

There are no schools for mechanics in Ecuador, consequently the labor is trained through practical experience at the cost of car owners. Shop owners are not willing to pay high wages to good mechanics, and consequently no expert foreign mechanics are employed.

Garage and shop equipment used in the principal garages and repair shops are air compressors, battery chargers, wheel-alignment equipment, reamers, valve grinders, wrenches, cylinder-boring machines, garage tools, hydraulic jacks, paint-spraying equipment, oil and grease guns, and cranes. It should be understood, however, that none of these shops has complete or fully modern equipment, and it is estimated that the average value of the equipment of these garages and repair shops does not exceed \$6,000, United States currency. Recently the existing pumping stations and garages have installed air compressors and oil-dispensing pumps.

There is no local production of any garage and service-station equipment in Ecuador, and all such products are imported from the United States.

Use of mechanical equipment is still restricted, owing principally to the small number of motor vehicles in use. As soon as the number of registrations increases, the need of efficient repair shops and service stations will doubtless develop a better demand for such equipment.

With few exceptions, repair shops are operated by automobile dealers. The majority of the garages in Ecuador are not engaged in repair work but are service stations for gasoline, oils, greases, air, and water.

Tires are changed by hand tools. Most of the tire repairing is done by the chauffeurs themselves. Vulcanizing is done in the repair shops.

Logical distribution areas are Guayaquil and Quito. Garage and service-station equipment as a rule is purchased direct from the manufacturer.

The best selling terms for this territory would be long terms, but owing to present unfavorable economic conditions, caution should be exercised in the extension of credit to firms which are not well and favorably known. In the absence of thoroughly favorable reports on the customers' solvency and integrity, sales should be on a cash basis or against confirmed irrevocable bank credits in the United States.

Although there is need of a first-class repair shop with modern equipment and good service in practically all the principal cities of Ecuador, owing to the present unsatisfactory economic conditions and scarcity of money future sales of equipment, especially of ma-



chinery, will be very limited. It is believed that there will be a fair sale of small garage tools and wrenches and an occasional demand for other service appliances.

### PARAGUAY

**Sale of Replacement Parts Small, but Market Expected to Increase in Importance—Sale of Accessories Increasing—Requirements for Garage and Service-Station Equipment Limited by the Small Number of Motor Vehicles in Operation**

Vice Consul V. Harwood Blocker, Jr., Asuncion

Motor-vehicle registrations as of January 1, 1931: 700 passenger cars, 200 busses, 900 trucks, 6 motor cycles.

Of the total motor-vehicle registrations in the country at the present time, 95 per cent are of American or Canadian manufacture. Probably 75 per cent of all automotive vehicles in the Republic are in the city of Asuncion.

#### REPLACEMENT PARTS

The local market for replacement parts has never been large. Dealers as a rule carry only small stocks; however, with the gradual increase in the number of automobiles in the country dealers are beginning to feel the necessity of maintaining larger stocks, and it is believed that the present market for parts will gradually show an increase.

With the exception of automobile frames, practically all types of parts are sold in the local market. The most important items are spark plugs, springs, valves, brake lining, fan belts, pistons, piston pins, gears, pinions, drive shafts, and starting and lighting generators.

There is very little competition to American replacement parts, a few items being imported from France and Italy. There is no local manufacturing.

Parts are in nearly all cases sold by the various automobile dealers. The city of Asuncion is the center of distribution for the Republic. Reliable firms in this district with a good credit standing are frequently given from 60 to 90 days' credit, with draft attached to documents.

Several dealers advertise their products in local newspapers, but in general, little sales promotion is done.

#### ACCESSORIES

While the demand for automobile accessories is not great, it is felt that sales are gradually increasing, owing to the growth in the number of automobiles in the country.

With the exception of theft-proof locks, radiator shutters and shields, taximeters, and car heaters, practically all of the accessory items are sold by local dealers. Articles having the greatest demand are bumpers, electric horns, lenses, lights (head and rear), and tire pumps.

Practically all accessories are of American manufacture. There is no domestic production, and a few items are imported from France

and Italy. As in the case of parts, accessories are usually sold by the automobile dealers. Large stocks are rarely carried.

The usual terms quoted are the same as those for parts.

#### GARAGE AND SERVICE-STATION EQUIPMENT

There are no modern drive-in service stations operated in Paraguay. Most automobile dealers operate a garage or repair shop in connection with their dealership, and adequate equipment is maintained to make general repairs. The Paraguayan mechanics who are employed in nearly all cases have learned their trade through experience.

Pumps and equipment for "free air" service and hydraulic lifts are items badly needed in Paraguay. There is but one hydraulic lift used in Asuncion. American equipment is used in the majority of cases. There is no local manufacturing, and practically no competition is encountered from foreign manufacturers.

The price of electric current in Asuncion is equivalent to about 18 cents gold per kilowatt-hour; however, it is not believed that the high charge has any tendency toward restricting the use of electrical equipment. Hand tools are generally used for changing tires, and most tire repairing is done in repair shops.

Practically all automobile dealers operate a garage or service station in connection with their dealership. There are also a few garages which are operated independently.

There is a need for better and more modern service station and garage equipment. However, with the comparatively small number of automobiles, garage owners are not inclined to provide the very latest and most modern equipment.

With the exception of brake-testing machines, car washers, and polishing machines, practically all garage-equipment items are used in Paraguay. The most important articles are battery chargers, cylinder-boring machines, garage tools, gasoline pumps, mechanical jacks, high-pressure chassis-lubricating systems and grease-dispensing systems, oil and grease guns, portable drills, reamers, tire vulcanizers, valve grinders, welding outfits, and wrenches.

### PERU

**Demand for Replacement Parts and Accessories Fair, With Growing Demand for Service Appliances—American Participation Practically 100 Per Cent in All Classes With No Domestic Production and European Competition Negligible**

Assistant Commercial Attaché Julian D. Smith, Lima

Motor-vehicle registrations as of January 1, 1931: 8,511 passenger cars, 503 busses, 5,357 trucks, and 275 motor cycles.

#### REPLACEMENT PARTS

Replacement parts most in demand, listed approximately in the order of their importance are as follows: Radiator caps, springs, brake lining, valves, spark plugs, piston rings, ball and roller bearings and clutch facings. There is an extraordinary demand for radiator caps and for devices for locking them on the cars. There

is an organized trade in stolen radiator caps, stock models. Street urchins sell them to pawn shops and to filling stations. Owners remove the caps if they have no patent locking device, whenever they leave their cars alone for a few minutes. Gangs of boys station themselves outside theaters and public functions and demand a few cents for watching the car even if left on a brilliantly lighted public thoroughfare. This is more a form of blackmail than a safeguard against theft of the car itself. If the boys are not paid, the car owner soon finds that all removable parts soon disappear, including radiator caps, gasoline tank caps, tire valves caps, the spare tire if it is not padlocked, wind-shield knobs, seat cushions, floor mats, tools, etc. Occasionally on back streets, cars have been found jacked up with all wheels removed. Entire car thefts are rare, the disposal problem in the rather small city being the thieves' greatest obstacle. When not paid the street urchins frequently prod tacks and nails in tires. No great effort is made to rid the city of Lima of this nuisance. It is important to note that no theft insurance of any kind is written in Peru.

American products account for about 95 per cent of the imports. There is no domestic industry, and foreign competition is negligible.

There is a very definite trend toward distribution of replacement parts by the automobile dealers. At least 70 per cent of the imports of parts represent sales to automobile dealers by the car manufacturers. Several factors have helped to develop this trend, among which may be cited the following: In Peru the principal garages are in reality large service stations maintained by the automobile dealers; the replacement parts used in these garages in so far as possible are parts made by the manufacturer of the car or cars handled by the dealer. Several car manufacturers have refused to sell legitimate parts except at higher prices to others than their authorized dealers. Recent hard times in Peru have put several small parts and accessory dealers out of business. The impracticability of keeping adequate stocks of parts for the increasing number of makes and changing models of cars has served to reduce the number of establishments engaged in this line of business.

The remaining 30 per cent of the market includes some direct importation from export commission houses or from parts manufacturing houses, but it is mostly composed of sales by manufacturers' representatives (agents working on a commission basis) and by traveling salesmen from the foreign factories.

Aside from the automobile dealers, who handle replacements parts of the makes of cars for which they are agents, the retail parts as well as the accessory business in Peru is in the hands of a very few firms. In Lima there are only four or five manufacturers' representatives selling to as many retailers. The two or three firms at present doing the largest amount of replacement part and accessory business perform at once the functions of importer, wholesaler, and retailer. If it is possible for a manufacturer or exporter in the United States to make connections with one of these leading firms, without competing with any other brand that it may have at the time, he can be assured that he has done the best possible in order to efficiently cover the local market. If, on the other hand, the manufacturer finds that he can not make any connections with one

of these firms, it is best to conduct sales in this country through a manufacturers' agent, especially if the product is one of such nature as to require frequent replacement. These commission agents as a rule do not like to take on agencies for anything but a complete line of parts and accessories, springs, valves, plugs, etc., being exceptions, as there is a large turnover in these articles.

The larger firms in Lima effectively cover, either by travelers or by means of subagencies, the entire purchasing public of the country, while the better manufacturers' agents have travelers in the Provinces or else make periodic trips themselves.

Most of the dealers who purchase standard parts have to pay cash; that is, open an irrevocable letter of credit or other similar cash transaction prior to shipment of the parts by the manufacturer. Dealer-agents of those manufacturerers who have their own finance companies may occasionally make different arrangements.

A small portion of the replacement-parts business is handed through manufacturers' representatives or commission agents, the manufacturers drawing on the importers at 60 or 90 days' sight and paying the agent usually a 10 per cent commission.

When the large retailers import direct from foreign export houses or from the manufacturers they receive terms of 60 or 90 days' sight.

Lima is the principal distribution center of the country. Sixty per cent of the automotive products entering Peru are imported through Callao, the port of Lima. Not only does this district include the capital city and suburbs and Callao and suburbs but also the central Peru region reached by rail and fair motor roads from Lima, or such towns as Canete, Pisco, and Ica to the south, Huacho and Supe to the north, and Juancayo, Tarma, and Cerro de Pasco to the east, high in the Andean mountain regions.

Another much smaller distribution center is the city of Trujillo to the north, served by the port of Salaverry. Second in importance to Lima is the district of which Chiclayo is the center, still farther to the north, and served by the ports of Pimentel and Pacasmayo. The Paita-Piura region also represents a fair automotive market. Still farther north is the port of Talara, through which enter more parts and accessories than through any other Peruvian port except Callao. Talara could hardly be called a distribution center. It is the oil-shipping port of Peru. Three oil-producing companies situated in from the port have more or less standardized on one or two makes of cars and trucks, and imports through Talara represent direct company orders for replacement parts.

To the south of the Lima district is the Pisco-Ica-Chincha region, part of the automotive needs of which are supplied by Lima dealers, although a large portion of the parts is imported direct through the port of Pisco. Still farther south is the Arequipa-Cuzco region, the port of entry for which is Mollendo.

If exporters are shipping to one or two good accounts in each of the following cities (outside of Lima)—Paita or Piura, Chiclayo, Trujillo, Pisco or Ica, Cuzco or Arequipa—they can be assured of having a very effective distribution throughout the whole of Peru.

Up to the present, advertising of replacement parts in Peru has always been more or less indirect. Automobile dealers extensively advertise the makes of cars they carry and sometimes stress the im-

portance of using only legitimate parts from the same manufacturer. Batteries, spark plugs, springs, horns, and polishes are rather infrequently advertised. There is some billboard advertising of batteries only. The leading dailies, one automobile magazine, one agricultural magazine, and the monthly publication of the Touring Club Peruano constitute the usual media employed.

#### ACCESSORIES

Accessories most in demand in the Peruvian market in the order of their importance are electric horns, hand jacks, lenses and lamps, bumpers, tire pumps, lights, wind-shield cleaners, tire gauges, speedometers, theft-proof locks, and rear-view mirrors. There is very little demand for tire covers, heat indicators, bulb horns, lubricating systems, luggage carriers, shock absorbers, wind-shield visors, or wind-shield wings. Due to the climatic conditions skid chains are used only in the mountains, where they are occasionally needed in case of mud and snow, but it rarely rains in the more densely populated coastal region of Peru. Car heaters and hood and radiator covers are not needed. There are no taximeters in use in Peru. There is a steadily declining market for seat covers. Although there are no rains along the Peruvian coast there are heavy evening mists during six months of the year, so that wind-shield wipers are in good demand.

United States products supply 95 per cent of the demand. There is no domestic competition, and foreign competition is negligible. A few French novelties are sold.

Most accessories are handled by commission agents. Some of the large retailers also import direct from manufacturers or direct from export commission houses in New York, Chicago, and St. Louis. There are in Lima, aside from the automobile dealers who stock small quantities of accessories in their showrooms and service stations, only 4 or 5 good accounts, with 1 or 2 in the other large cities like Piura, Trujillo, Chiclayo, Pisco, Ica, Cuzco, and Arequipa. The accessory business is largely in the hands of only four or five manufacturers' representatives. The two or three firms at present doing the largest amount of retail accessory business, perform at once the functions of importer, wholesaler, and retailer. Occasionally they hold exclusive agencies of American manufacturers. If a commission agent can count these large Lima houses among his customers, the foreign manufacturer can secure more complete coverage of the entire market by awarding his representation to an agent rather than to a Lima wholesaler, as an efficient agent will make periodic trips to the other distribution centers and not depend wholly on correspondence or similar means of contact.

Occasionally a North American traveler will stop and do a fair amount of business. There are no other foreign travelers. Small stocks are carried by the larger dealers. There are so few good customers, such a limited market, so few agents handling accessories, and so many American manufacturers desirous of getting even a small share of a small business that the four or five agents are besieged with offers of agencies and are tempted to handle competitive or at least overlapping lines. Nevertheless, the market is rather adequately covered by present distribution methods.

The usual terms are 60 or 90 days sight to the importer and 10 per cent commission to the manufacturers' agent.

Car agencies, garages, and service stations carry small stocks of accessories.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Decided progress has recently been made in the large cities of Peru in providing adequate automobile-service facilities. Improvement will be needed shortly in the Provinces as the means of transportation and communication are bettered. In the capital district several of the dealers have recently enlarged and improved their service stations.

Some garage mechanics having various grades of skill are to be found in Peru as elsewhere, but on the whole, the Peruvian makes a fair mechanic, and his degree of skillfulness is constantly improving.

The following types of equipment are not now in general use and will be most needed as the desire for more adequate servicing becomes apparent: High-pressure chassis-lubricating systems and grease-dispensing systems, garage grease guns, auto lifts, tire-repairing machines, cylinder-boring machines, and wheel-alignment equipment. The following type of equipment is most in demand: Air compressors, gasoline pumps, jacks, garage tools, paint-spraying equipment, battery chargers, cranes, welding outfits, and towing and salvaging equipment.

The equipment especially manufactured for garage and automobile service stations which is sold in Peru is almost entirely of North American manufacture. Competition is experienced only in the sale of tools like lathes, vises, portable drills, and jacks, which, while used in garages and service stations, are not necessarily manufactured particularly for that purpose. There is no foreign competition, and no garage equipment is manufactured locally.

There are no restrictions against the use of mechanical equipment other than a prevalence of cheap manual labor and the lack of interest on the part of the public, both of which obstacles are gradually being overcome. With the exception of Lima and one or two other large cities, electric current is not available to garages on an economical basis for operation of service appliances.

Tires are most frequently changed by hand methods, and the use of hand tools predominates. Most tire repairing is done in repair shops maintained in connection with automobile dealers' service stations.

It is best to handle the local market through a direct United States traveling representative. With the exception of air compressors and gasoline pumps, most of the garage equipment now entering this market is ordered direct by the automobile dealers through the export departments of the car manufacturers whom they represent. These export departments can usually secure favorable prices, have facilities for efficient shipping, and even recommend to their dealers abroad certain makes of various types of equipment. Air compressors, gasoline pumps, and similar equipment are best distributed through large machinery houses in Lima, which have branches in the

Provinces or send travelers on periodic visits. Stocks can be maintained in Lima to supply the capital direct, but sales in the Provinces will usually have to be made on an indent basis.

As a result of the small market for this type of equipment, present distribution methods are not satisfactory either from the point of view of the manufacturer, the agent, or the average customer. The manufacturer, oftentimes unaware that some of his own goods are entering Peru through the automobile dealers, complains that he is not getting enough business from Peru. The agent complains that as there is so much direct buying he can not afford to keep large stocks, while the average customer needing something in a hurry finds that there are little or no stocks in the country from which to buy. In other words, the market is so small that direct buying by the automobile dealers forms a substantial portion of the total business.

It is significant that the only agent stocking garage and service-station equipment (other than air compressors and gasoline pumps which are handled and stocked by large machinery importers who have no other direct connection with the automotive trade) has decided to discontinue automotive lines as a result of the poor business of 1930.

The leading garages in Peru are operated by automobile dealers. The logical distribution areas and the main distributing centers are the same as described for replacement parts.

Credit terms are expected to be at least as liberal as 90 days sight. Most of the consumers, other than automobile agents, buy from the importer on the basis of many months deferred payment. Competition among the automobile dealers has brought about a public recognition of the need for better and more modern service and garage equipment. Expanding automobile business prior to 1930 caused automobile dealers to put in new and enlarged showrooms and service stations. This fostered competition among the dealers. One or two garages have gone in for high-pressure lubricating systems and have improved painting facilities. Two Lima service stations have within the last six months installed modern tire service and vulcanizing departments with the latest model North American machinery.

## URUGUAY

**Present Demand for Replacement Parts and Accessories Fair, with a Growing Market for Service Appliances—American Manufacturers Supply 95 Per Cent of the Demand**

Commercial Attaché Clarence C. Brooks, Montevideo

Motor-vehicle registrations as of January 1, 1931; 37,160 passenger cars, 940 busses, 9,330 trucks, and 680 motor cycles.

In relation to the number of motor vehicles in operation Uruguay does not offer a large market for automotive replacement parts. The concentration of more than 50 per cent of the country's automobiles in the Department of Montevideo, where they are not subjected to hard usage and are operated over improved streets and highly improved highways, has had an important bearing on the demand for the entire line of parts.

The predominance of North American motor vehicles—some 97 per cent of those in operation have been imported from the United

States—and the dependence of vehicle owners on the importers and distributors of their respective makes of cars, trucks, and busses for mechanical service have given United States manufacturers of parts a market that is practically free from foreign competition. There is no domestic manufacture of parts.

#### REPLACEMENT PARTS

Only a small percentage of the replacement parts sold in the Republic find their way into consumption through dealers specializing in automotive parts and accessories, for these firms can not profitably stock and distribute all the items required in servicing the wide range of different makes and models of cars, trucks, and busses in operation. The firms specializing in parts generally limit their lines to brake lining, fan belts, spark plugs, pistons, piston rings and pins, radiator and gas-tank caps, bolts, cotter pins, and a few other standardized items that can be used by practically all types and makes of vehicles.

Vehicle importers and dealers, in accordance with their contractual obligations with the manufacturers, are generally required to carry a line of parts, and they are the principal source of supply for such replacements as bearings, bushings, clutch facings, springs, valves, stampings, forgings, body hardware, gears, pinions, drive shafts, steering wheels, frames, and other integral parts. Generators, starting and lighting equipment are, as a rule, handled by factory-appointed authorized dealers.

The firms specializing in replacement parts either act as exclusive distributors for parts manufacturers or purchase their stocks on the open market in the United States from factories making parts, but the vehicle importers obtain their parts principally from the producers of the cars, trucks, and busses they represent.

Montevideo, the capital of Uruguay and its largest city, is also the center of distribution. Motor vehicles in the capital are distributed by the importers representing the manufacturers, but outlying territory is covered by subagents or dealers appointed by the importers. In connection with the merchandising of motor vehicles in Uruguay, it must be pointed out that only two makes, both American, enjoy nation-wide distribution. The sale of all other makes of vehicles is restricted largely to the city of Montevideo and the towns of Salto, Paysandu, Mercedes, and Minas. Subagents and dealers named by the Montevideo importers are invariably obliged to carry a small stock of parts manufactured by the company whose make of vehicle they sell.

The distributors representing manufacturers of replacement parts confine their activities mainly to Montevideo. Several of the larger distributors have travelers, others subagents, who cover some of the interior points, but the amount of business they do outside of the capital does not run into volume.

Garages in Uruguay have never been an important factor in the replacement-part trade. When servicing a vehicle requiring new parts, garages generally purchase them from the vehicle importers; the garage operator, when he carries replacement material in stock, generally limits the items to brake lining, spark plugs, fan belts, bolts, cotter pins, and electric bulbs.



The part played by the manufacturers' agent in the sale of replacement parts to the trade has been steadily diminishing in importance. The increasing tendency of the manufacturers to sell direct and the desire of the Montevideo importers to operate as sole sales outlets have tended to gradually eliminate the agent as a factor in the trade.

Responsible firms importing replacement parts can obtain 60 to 90 days' credit from the manufacturers. Others pay for their merchandise against sight drafts with documents attached.

Competition for the open-market business in replacement parts is between the importers selling the products of American factories. European manufacturers have not seriously competed with American exporters for the distributor's business, nor have the very few distributors stocking lines of European origin been successful in competing with those merchandising similar lines from the United States.

Increased business in American replacement parts will be derived principally from the expansion it is anticipated will take place from year to year in the use of motor vehicles. There are no special requirements or local preferences with which parts manufacturers might comply in the hope of extending their business.

Advertising has played a minor rôle in the marketing of parts in this country. Individual items, such as brake lining and spark plugs, have been advertised, but no sustained and well-directed efforts have been made to stimulate and develop sales in replacement lines through mediums of publicity. The only effective media at the disposal of the trade is the daily press.

#### ACCESSORIES

The tendency of automotive manufacturers to include an increasing number of accessories as original equipment has to a certain degree curtailed sales, but a good demand still continues to manifest itself for a wide range of equipment classified as accessories. Momentarily the market is suffering from the effects of the economic depression that has enveloped the country, but when the situation returns to normal the business in many types of accessories should register a progressive yearly increase.

It is estimated that United States manufacturers obtain 95 per cent of the trade in accessory lines. European factories are not serious contenders for the business, and apart from seat covers, tops, and bumpers there is practically no local manufacture of accessory lines.

There is no demand for devices whose sale is governed by climatic conditions or the desire of vehicle owners to protect themselves from theft, but more or less of a steady market exists for bumpers, non-skid chains, electric horns, mechanical jacks, cowl lights, mirrors, pumps, tire covers and tire gauges, shock absorbers, and novelties of all kinds.

The accessory trade is principally in the hands of importers who sell both at wholesale and retail. Motor-vehicle distributors in Montevideo do not stock accessories, but in most of the interior centers car and truck dealers carry the faster-selling items.

The majority of the importers operate as exclusive factory representatives, buying and selling for their own account. Increased competition has been steadily eliminating the manufacturers' agents from the accessory trade, although a number of them still continue to operate. In the last two years, a number of North American manufacturers, finding it impossible to secure suitable agency or exclusive importer connections, have been selling on the open market. While direct selling has been productive of a fair volume of business, it can only be recommended as a substitute for marketing through qualified exclusive importers doing both a wholesale and retail business. The importers, as a rule, usually can obtain better coverage for the manufacturer than he, himself, can secure by selling on the open market.

Sixty or ninety days are regarded as the standard terms in the automobile-accessory trade. Occasionally European manufacturers, in an endeavor to develop business, will offer longer terms to the importers. Liberal terms, however, have not been sufficient inducement to cause the importers to switch from American to European lines.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Although notable progress has been made in the last three years in the facilities provided for servicing motor vehicles, there is still room for further expansion and improvement. At the insistence of motor-vehicle manufacturers, most of the car, truck, and bus importers in Montevideo and their dealers and subagents in the interior of the Republic installed modern shop equipment. This in turn influenced some of the more progressive repair-shop operators to improve their facilities. There are, however, many shops still using hand labor on a large scale and adhering to less modern methods.

The introduction of service-station equipment was pioneered by the United States petroleum companies operating in Uruguay. Other gasoline and oil dealers followed in installing mechanical equipment for oiling, greasing, washing motor cars, and inflating tires. The improvement in service-station equipment was at first confined to Montevideo, but it has now extended to the smaller towns and cities.

With a few exceptions, the garage and service-station appliances in use have been imported from the United States, and there is every reason to believe that American manufacturers, for reasons of price and the excellence of their products, will continue to maintain their hold on the market. Foreign competition is felt only in the demand for portable drills, and in this line Germany holds the leading position, followed by the United States and France in the order named. Garage and service-station equipment is not manufactured in Uruguay, and the volume of business to be obtained in this field is such that local production could not be undertaken at a profit.

Brake-testing machines, cylinder-boring machines, reamers, wheel-aligning machines, automatic valve grinders, and valve-facing machines are the principal items of equipment needed to per-

form the operations which are now done by hand and by mechanics of little training and a lack of appreciation of the value of precision.

Hydraulic lifts, pressure-washing equipment, gasoline pumps, pressure-lubricating systems, paint-spraying machines, oil and grease guns, and mechanical jacks are the items that have been most in demand.

In the interior centers the volume of work often does not warrant the installation of expensive equipment, and at some points either the complete absence or the high cost of electric energy militates against the installation and economical operation of electric garage and service-station appliances. These conditions, however, do not prevail in Montevideo, where current is obtainable at 3 centesimos a kilowatt, and the number of motor vehicles in operation exceeds 50 per cent of the country's total.

The sale of all garage and service-station equipment is temporarily almost at a standstill, owing to the prevailing economic situation and the depreciation of the currency.

Owners of garages, service stations, and repair shops, as a group, display a willingness to improve their mechanical facilities, but they move cautiously in introducing new equipment and are not disposed to make purchases at present prices, which in some instances represent as much as 100 per cent increase—owing to the fall in the value of the peso—over those quoted a year ago.

The best-equipped repair shops and garages are those operated by the automobile dealers, and the service stations possessing the most modern facilities are those owned by the foreign petroleum companies operating in Uruguay. These companies were not only the first to install mechanical appliances but they continue to maintain the lead in the introduction and use of modern equipment.

Tire service is rendered by numerous small shops specializing in the vulcanizing and repairing of tires. The owners of these shops are usually men of limited means; consequently they are not often in position to finance the purchase of mechanical tire-repair equipment. Tires are still changed by hand, although vulcanizing and patching is done by mechanical methods.

The large, financially responsible importers doing both a wholesale and retail business have been the most successful in introducing and selling garage and service-station equipment, for many of the buyers require financing which can only be undertaken by locally established firms. The ability of the importers to sell from stock and make the essential repairs as well as promptly supply parts has also been a factor contributing to their success. Factory sales terms, as a rule, are 60 to 90 days, and these terms meet with the approval of the majority of importers.

Manufacturers' agents, as a group, have not played an important part in marketing service appliances, and owing to the nature of the trade they should only be considered as alternative sale channels when manufacturers can not secure an exclusive importer representative in Montevideo.

## VENEZUELA

**Present Demand for Replacement Parts and Accessories Low, Owing to Depressed Business Conditions—Garage and Service-Station Equipment Has Shown Slow Improvement—Very Little Competition With United States Products From European or Domestic Sources**

Assistant Trade Commissioner Rolland Welch, Caracas

Motor-vehicle registrations as of January 1, 1931: 11,250 passenger cars, 1,500 busses, 5,250 trucks, and 250 motor cycles.

### REPLACEMENT PARTS

The yearly imports of automobile-replacement parts and accessories total from \$600,000 to \$800,000, practically all of which come from the United States. Imports are large considering the small number of motor vehicles in use. The scarcity of good roads and the carelessness of the average automobile driver causes a demand for practically all parts which are subject to severe strain.

The leading items of replacement parts are springs, brake lining, batteries, and ball bearings.

Parts are distributed both by importers and by indent agents. The importers as a rule are wholesalers and retailers in parts and accessories or distributors of automobiles. Many of these have large sales organizations adequately covering the entire country. Most of the large firms of this nature already have connections with manufacturers, and exporters newly entering the market might find it more advantageous to handle sales through indent agents. These travel throughout the country and usually have subagents in the principal cities. They also sell to the larger importing distributors who may be representing competitive makes.

The advantage of handling sales through the distributor is that he imports on his own account, and the manufacturer has only the one account to carry. Indent agents on the contrary do no importing and take orders from all retailers, both large and small, expecting the manufacturer to advance usual terms to these buyers and carry the accounts and credit risks. On the other hand, the advantage of dealing through an indent agent is that he will get wider distribution and sell larger quantities than any of the importing distributors, except the large ones with branches in several cities.

The terms granted for most replacement parts are 30, 60, and 90 days' sight. European manufacturers are more liberal in the extension of credit terms than American producers, but most of the local companies would rather buy the American goods at a higher cost because they can secure delivery much more quickly and do not have to tie up money in large stocks.

According to Venezuelan law, the consignee of goods is the owner, and he may obtain shipments without original documents. It is therefore impossible for exporters to protect themselves by sending the original documents to the collecting bank attached to draft against acceptance. The consignee does not have to accept draft and obtain the documents in order to get the books. The only way of getting protection is to consign to a customs broker, who will

deliver to the buyer according to shipper's instructions. Original documents should be sent directly to consignee. Banks will not accept goods on consignment.

#### ACCESSORIES

The leading automotive accessories in demand include tire-patching outfits, automobile polishes, horns, and light bulbs, with the greatest demand existing in cold patches for tires, the demand for which is far above the average. There is a very good demand for automobile horns, but the bulb variety is preferred. In fact, in some cities there are ordinances which require automobiles to be equipped with two horns, one with an air bulb operated by hand for city streets and the other an electric one, supposed to be used only on country highways.

A number of air horns come from France, England, and Germany, but the majority are imported from the United States.

Venezuelan car owners are attracted by certain novelties such as radiator caps, and especially by horns operated by rubber air bulbs. The popularity of the horn is practically dependent upon the amount of noise that it makes, the louder the better.

Methods of distribution and terms are the same as those for replacement parts.

There are numerous automobile-accessory stores in Venezuela, and in addition nearly all hardware stores carry some accessories, as do local garages. In the interior, automobile accessories are carried by general stores that handle numerous other lines.

Price is the predominant factor in Venezuelan trade, and accessories must be cheap, quality rarely being a decisive sales factor.

In view of the present economic depression, the demand for parts and accessories is limited to essential items. Normally, however, the demand would show an increase from year to year. There is no doubt that when conditions improve the requirements for parts and accessories will show a steady increase.

#### GARAGE AND SERVICE-STATION EQUIPMENT

Such progress as has been made in providing adequate automobile servicing facilities has been caused by United States automobile manufacturers who insisted that their local dealers have adequate servicing facilities. The mechanics employed in the better garages, while having no school training, have obtained their knowledge from working on cars and seem to be adequately trained.

The greatest need probably exists for electrically driven tools and machinery, together with shop benches and precision tools, but there is little possibility of selling much equipment of this nature, since the independent garages are not operated with sufficient capital to enable them to make such investments. The equipment most in demand includes wrenches, thread cutters, hammers, chisels, hand-operated valve grinders, etc. An important factor in the small demand for this type of equipment is the cheap labor which can be employed at from 40 cents to \$2 per day.

Practically all equipment is American. There is little foreign competition and no domestic manufacture with the exception of such as might be done in a blacksmith's shop.

Electric current is available in almost all towns and cities, but it is sold at high prices in many places. In smaller cities and towns the current may be shut down any number of times a day. In fact, in many towns current is supplied only at night. The larger cities have secondary current for electrical appliances and machinery.

Tires are changed with hand tools, and most of this work is done along the side of the road.

Caracas and Maracaibo are the two logical distributing centers at present. Distributors in Caracas usually cover all the country except in the vicinity around Lake Maracaibo, which belongs to the distributors in the city of Maracaibo. Caracas distributors cover the rest of the country with traveling salesmen and subagents in other cities and towns, but only the larger distributors give adequate attention to sections outside the immediate vicinity of Caracas.

Manufacturers will get wider distribution by the employment of a good sales agent, working exclusively on a commission basis. There are no large wholesalers or jobbers.

Sales made by agents working on commission are made on terms of sight, 30, 60, and 90 days' draft. The manufacturer is always responsible for credit allowances. Attention is also called to the paragraph under the heading "replacement parts," concerning the handling of shipping documents.

Comments on individual items show that air compressors have an extremely limited demand; auto lifts are rarely seen outside of service stations operated by automobile distributors. There is an extremely limited demand for battery chargers, brake-testing machines, cylinder-boring machines, cranes, and hydraulic jacks. Car washers are not used. There is an exceedingly small demand for high-pressure lubricating systems, oil pumps, grease guns, and oil-dispensing containers.

There was a good demand during the past year for paint-spraying equipment, but this no longer exists. The greatest demand is for hand tools, and any mechanical tools that are sold must be cheap. It is believed that such mechanical equipment as could be sold at a very low price would find some appeal.

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