

**U. S. DEPARTMENT OF COMMERCE**  
ROY D. CHAPIN, Secretary  
**BUREAU OF FOREIGN AND DOMESTIC COMMERCE**  
FREDERICK M. FEIKER, Director

---

Trade Promotion Series—No. 135  
Supersedes No. 22

---

# **INTERNATIONAL TRADE IN MACHINERY BELTING**

By  
E. G. HOLT, Chief  
and  
R. H. SANGER  
Assistant Business Specialist  
Rubber Division



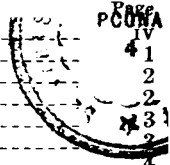
UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1932

33828



CONTENTS

Foreword.....	1
Introduction.....	1
Principal classes and types of belting.....	2
Rubber transmission belting.....	2
Rubber elevator belting.....	2
Rubber conveyor belting.....	2
Balata transmission belting.....	4
Balata elevating and conveying belting.....	5
Leather belting.....	5
Woven cotton and stitched canvas belting.....	7
Woven hair belting.....	7
The United States belting industry.....	9
Rubber and balata belting.....	9
Leather belting.....	11
Woven belting.....	13
Summary of production, 1923 and 1929.....	14
Exports from leading manufacturing countries.....	16
United States.....	16
Rubber belting.....	18
Leather belting.....	22
Cotton belting.....	26
Canada.....	29
United Kingdom.....	33
Germany.....	45
France.....	52
Belgium.....	55
Netherlands.....	59
Italy.....	61
Switzerland.....	63
Austria.....	67
Czechoslovakia.....	69
Sweden.....	73
Norway.....	74
Denmark.....	76
Japan.....	77
Australia.....	79
International competition in belting trade.....	81
Rubber and balata belting.....	84
Leather belting.....	87
Hair and cotton belting.....	89
International trade in belting, by classes.....	91
Market factors.....	93
Technical aspects of the belting trade.....	93
Trade practices.....	94
Distribution methods.....	94
Peculiarities of different markets.....	96
Table of average foreign-exchange rates.....	97



## FOREWORD

The United States now supplies nearly one-quarter of the total world exports of machinery belting, its share having increased steadily since 1921. The American industry is considered here in detail under the headings rubber and balata, leather, and textile belting. The Canadian industry, which is practically an adjunct of our own, is also reviewed, and its growth traced from 0.1 per cent in 1920 to 5.7 per cent of the world total in 1930.

The United Kingdom has always been the largest exporter of machinery belting, although its share is decreasing. Whereas 10 years ago the British supplied more than one-half of the belting exports to the world, last year the amount sent abroad was less than one-third. The British are unusually strong in woven-hair and cotton belting, but the marked decrease in the price per pound of British rubber belting has helped their trade in that commodity.

The German belting industry has shown the largest percentage growth of any important nation, rising from 2 to 12 per cent of the world exports. The export trade of France, Belgium, and 10 other of the chief exporting countries, is covered in this pamphlet. International competition in the belting trade as a whole is summarized as well as the world trade by classes of belting.

The export trade of each competing country is treated in a separate section, the trend of the trade from 1920 to 1931 being brought out, and statistics of exports to foreign markets stated in detail so far as possible.

The purpose of this pamphlet is to furnish United States manufacturers and exporters of each class of machinery belting a picture of the total available export business in their product, and the extent to which foreign manufacturers of various nationalities compete in the trade. The rubber division of this bureau, in cooperation with oversea representatives of the Departments of Commerce and State, maintains close touch with markets throughout the world. The division will gladly reply to specific inquiries from American manufacturers and exporters.

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

AUGUST, 1932.

# INTERNATIONAL TRADE IN MACHINERY BELTING

## INTRODUCTION

Comparable statistical data for exports from producing countries are available for the three following classes of belting: Rubber and balata, leather, and woven hair and textile belting. The material has been collected with a view to comparing the total international trade in belting of these three classes over a period of years, and to show the extent to which different countries participate in supplying this trade; in other words, the share of each important belting-manufacturing nation in turning the wheels of industry throughout the world.

Manufacturers of each class of belting customarily give careful attention to trade reports regarding their own class of product. Many exporters of rubber belting, however, give but little attention to the export trade in other classes of belting, and the same is true of exporters of leather and cotton belting. At the same time these exporters realize that the volume of their trade with a particular foreign country is affected not only by competition from manufacturers who produce belting of the same class as themselves, but also by the competition from manufacturers of other classes of belting, and that facts concerning competition in the trade in any class of belting are worthy of their careful examination.

The leather belting export executive, who sends current trade statistics of United States exports of leather belting to his British Indian agents, and wants to know why the trade has declined during a particular period, might find his answer in a study of the exports of woven hair and cotton belting from Great Britain to India. In modern practice belting of different materials is used so interchangeably that the exporter must consider not only the competition from foreign producers of his own class of belting but also that from producers of all other classes. That United States exports of rubber belting to a particular market are now negligible does not necessarily mean that a market for rubber belting is nonexistent there. This collection of data on the international belting trade, as a whole, should help United States belting exporters to consider export trade from a belting-industry point of view and not from the viewpoint of the leather, rubber, balata, or cotton belting industry individually.

The economic crisis through which the world is passing has stamped its mark on every trade. One of its outstanding effects has been keener competition among manufacturers, coupled with closer watch on expenditures by consumers. Continuity of business in the belting trade, whether it be leather, rubber, balata, hair, or cotton belting, depends upon the maintenance of a product of reliable quality at a reasonable price.

During the after-the-war period there were cases where, owing to special circumstances, certain national groups of manufacturers possessed advantages which enabled them to produce quality products and yet sell at prices which competitors in other countries could not meet without financial loss. From 1920 to 1922 Germany enjoyed such a period, and during 1923 and 1924 France and Belgium profited from a like cause, as is evident by examination of the trend of exports from those countries shown later on in this report.

Although this publication is intended principally for the use of manufacturers and exporters of machinery belting, it may be referred to by others for whom a brief description of the different classes and types of belting is worth while. In speaking of "classes" reference is had to the materials of which the belts are made, as rubber, leather, hair, etc.; by "types" is meant the purpose for which the belt is used, such as for transmission, elevator, or conveyor service, etc.

It is generally recognized, though not always admitted by individual manufacturers, that although each class of belting is manufactured in various grades and offered for varied uses, and although the classes are usually competitive, each class has features rendering it particularly suitable for use under certain conditions, and that the class of belting most economical in the long run for a particular drive, and the grade or quality to be selected within that class, depends upon the use to which the belt is to be put, the continuity of service, and the specific service conditions.

### PRINCIPAL CLASSES AND TYPES OF BELTING

For convenience in reference the following description of the principal classes and types of machinery belting is submitted. The description is nontechnical and is not intended in any sense as a guide to purchasers but merely as a source of general information to persons who may find difficulty in locating similar data in published texts.

#### RUBBER TRANSMISSION BELTING

Rubber belting is made up of plies of frictioned cotton duck vulcanized together. The desired number of plies is secured by folding the frictioned duck or by superimposing strips which have been cut from it. The quality of rubber belting depends on the rubber compound, the cotton duck that gives strength to the belt, and the method of manufacture. High-grade belts contain what is known as 32-ounce duck, this weight applying to a section 36 by 42 inches. All rubber transmission and elevator belting and most conveyor belting is straight ply; that is, of uniform thickness from edge to edge. The plies are held together by the adhesion between the duck and the friction rubber. Transmission belts are made either plain or stitched longitudinally, as desired by the customer. Some transmission belts are rubber covered, with a wearing surface of rubber covering the fabric completely, but the majority are of the friction-surface type, this type having an external appearance very similar to a cotton belt.

Rubber manufacturers recommend rubber-covered transmission belting as especially suitable for use where there are acid fumes, excessive quantities of steam, or extremely moist conditions. Both rubber-covered and friction-surface belts are used for heavy-duty purposes, the friction-surface type being practically always offered

for use under high-speed and small-pulley conditions. It is contended by some authorities that the rubber-covered belt would never have been superseded by the friction-surface if the original rubber-covered belts had possessed the merits of those now produced. Naturally the rubber-covered belts are more expensive than the friction-surface, and probably for this reason the friction-surface belt is more commonly used for transmission where the service conditions are not extraordinary. Special types of rubber transmission belting are manufactured for every conceivable working condition, and rubber competes strongly with all other beltings, especially in all the larger sizes of transmission belting. Where a waterproof belt is required, on account of changeable weather conditions, or where a wide range of temperature is one of the working conditions, the rubber belt is especially suitable. Practically all axle lighting belts used on American railway cars are of rubber or balata, and this use is often cited as an example of the suitability of these classes of belting for use under particularly severe service conditions. The original low cost of rubber belting is an important factor influencing its adoption in many industries. The fact that belt dressings are not needed on rubber belting is a sales argument often used.

Improper lacing destroys many good rubber belts and is the cause of many unjust claims on the manufacturer. To properly join the ends of a rubber belt to make it "endless on the job" requires skill and experience, and this factor hampers the use of rubber belting. Rubber belting is not commonly used for short center drives, particularly where shifters are used and an endless belt is necessary. Oil and grease are injurious to rubber, and where these elements come in frequent contact with the belt ordinary rubber belting is not fully satisfactory. Many a good rubber belt has been ruined by the improper application of oily belt dressing. To a limited degree the perishability of rubber affects the use of rubber belting, especially in tropical countries, or when stocks may be carried for long periods, up to one or two years before being put in service.

#### RUBBER ELEVATOR BELTING

In the elevator-belting trade, especially where exceptionally severe conditions of service exist, rubber belting is widely used. All rubber elevator belts are straight ply. The friction applied to the cotton duck permeates the meshes of the fabric and prevents moisture from entering through the bolt holes, insuring the duck against rot and prolonging the life of the belt. Rubber elevator belting is chiefly used in mines and quarries to handle wet ore, crushed rock, quartz, etc., and in grain elevators; it is employed also in various other industries too numerous to mention.

#### RUBBER CONVEYOR BELTING

Rubber conveyor belting is made in both straight-ply and stepped-down-ply construction, the latter having a less number of plies and thicker rubber cover at the center than at the edges. This construction makes the belt stiff longitudinally and flexible laterally, preventing sagging between the idlers while allowing it to conform readily to the shape of the troughing idlers.

The uniform strength and thickness of rubber belting, the possibility of its construction in any desired size and length, its imperviousness to moisture, its resistance to abrasion, and its excellent durability under even most severe working conditions are the principal causes of its popularity in the conveyor as well as in the elevator-belting field. The stepped-down-ply construction type of belt is used, in general, where the abrasion is most severe in the center of the belt, but straight-ply conveyor belts with thicker rubber cover at the center than at the edges are also used under such conditions. Trade opinion has it that less than 5 per cent of the rubber conveyor belting made in the United States is of the stepped-ply construction, the reduced strength of the belt, resulting from a lack of a full number of plies of duck in the center, and the added difficulty in its manufacture having been factors against its popularity. Straight-ply belts are generally used for handling crushed coal, dirt, sand, and loose cement and always for such light service as handling packages, light refuse, grain, and foodstuffs.

United States rubber manufacturers have developed rubber belts to their present perfection. The growing use of rubber belting in foreign markets in recent years is the result of intensive sales activities of exporting American manufacturers and a constantly broadening circle of appreciative users.

#### BALATA TRANSMISSION BELTING

Balata belting is constructed from plies of extra heavy cotton duck, impregnated with a solution of balata gum. High-grade balata belting is made of 40-ounce duck, this weight applying to a section 36 by 42 inches. Balata is a gum product of a South American tree, which grows chiefly in Venezuela, Brazil, Peru, and the Guianas. The gum possesses qualities similar in some respects to rubber and in other respects to gutta-percha. All balata belting is of the straight-ply type. It is not vulcanized in process of construction.

Manufacturers state that it is absolutely waterproof, and further that the balata does not deteriorate, which makes it possible to carry the belting in stock to advantage. Owing to the extraheavy duck used in the construction of high-grade balata belting, it has very little stretch, thereby reducing the necessity of take-up. It is customarily and satisfactorily joined by any of the metal fasteners on the market and can be made endless by means of a step-lap, though this method of joining is not frequently practiced by users in the United States.

The higher price of balata belting over rubber, according to United States manufacturers, is due to the higher cost of crude balata over crude rubber and to the extraheavy duck used in its construction. The use of heavier duck for balata than for rubber belting is not universal in European practice, although standard makes of balata belting are so constructed. In recent years the average price of crude balata per pound has been more than double the average price of crude rubber per pound, and the higher cost of materials and heavier weight of duck is naturally reflected in the price of the finished product.

In the transmission-belting field, balata belting is successfully used where constant belt shifting is not necessary, where the temperature is less than 110° F., and where it does not come in contact with



mineral oils. Where the belt is constantly subject to slippage, a high temperature may be developed from friction; this condition of service is, however, almost equally injurious to any belt. Since balata belting is not vulcanized, the gum softens when exposed to excessive heat. Aside from the above cases, balata belting is used satisfactorily for the transmission of power.

#### BALATA ELEVATING AND CONVEYING BELTING

Manufacturers of balata elevating and conveying belts recommend them for use under the same severe conditions of service as rubber belting, as in sand and gravel plants; brick, clay, and tile plants; cement mills; stone and marble quarries; canneries; rice and sugar mills, flour mills, etc. The extra heavy duck used in construction tends to make a very firm and compact finished article, thus reducing the possibility of bucket bolts pulling out on elevator belts. Balata is tasteless and odorless, which makes the belting suitable for conveying food products. The waterproof qualities of the belting prevent deterioration from puncture and render it suitable for handling wet materials and for outdoor service. High-grade conveyor belting of either balata or rubber will wear down ply upon ply, making it possible to get the maximum of service from the belt. Balata belting lacks the extra abrasive cover of rubber belting which is desirable in the most severe conveying work.

Except in the United States and Canada, balata belting is used as widely as rubber belting throughout the world. The relatively small share of balata belting used in the United States is because only a small number of United States manufacturers are engaged in this industry, as compared to the number of producers of other classes of belting. Several United States rubber companies formerly manufactured balata belting, but practically none of them do so at present. Manufacturers in Great Britain, Germany, Czechoslovakia, and Norway are particularly strong in the export trade in balata belting and formerly produced much more balata than rubber belting. Balata belting has been a strong competitor in export markets for a longer period than rubber belting, having been widely introduced abroad by European manufacturers before American rubber belting firms began seriously to cultivate export business.

#### LEATHER BELTING

The manufacture of flat leather belting is practically confined to single and double belting. The single is made up of one thickness of hide, while the double consists of two thicknesses cemented together. In the United States for both single and double leather the cemented lap or joint has replaced all other fastenings. In foreign countries, however, there is still wide use of various forms of stitching, rawhide lacing, and other kinds of fastenings for the joints, as well as for the plies of double belting. The use of cement in the joint, however, is gradually increasing in vogue, particularly in Great Britain and western Europe. Round leather belting in small sizes is produced in some volume for use on light machines such as sewing machines.

Vegetable tanning materials, and in the United States prime oak bark and its extracts, are generally used in tanning leather for belting purposes. Mineral tannage or chrome is used to a greater extent than

formerly, and especially in combination with oak or other vegetable materials in the production of combination-tanned leather; however, these tannages are still a minor factor in the trade in the United States. Some leather-belting manufacturers still consider such tannages as experimental, although some other companies have been offering chrome-leather belting for years. In some European countries chrome-tanned leather belting is produced to a relatively greater extent than in America.

In the production of good belting leather only selected packer's steer hides are used, and only about one-third of the hide, or that portion extending along the spine and for some distance down the sides, can be utilized for the best grade of leather, other portions of the hide lacking the necessary uniformity in strength and texture. The quality of leather belting depends upon the degree of uniformity of the leather employed as well as the skillfulness of the construction. Largely because of this fact, high-grade leather belting has a higher initial cost than high-grade belting of any other class. Lower-grade leather belting has a wide price range but is, in general, higher in initial cost than other classes except hair belting.

Despite its high price, leather belting possesses certain merits which will always assure it a wide industrial use for transmission purposes. Manufacturers claim that its adaptability to small-pulley, high-speed conditions; the ease with which the ends may be joined together securely; the fact that leather belting can easily be made endless; and its suitability for drives where the belt is frequently shifted are the main reasons for its popularity and widespread industrial use. Furthermore, leather belting may be said to be more simple to install or repair, and it also has a higher salvage value than other classes of belting. That a wide leather belt no longer suitable for use on a large drive may be cut into narrow belts for use on small drives is a sales argument often used. Leather-belting manufacturers claim a relatively high delivery of generated power to the driven pulley and a relatively low power loss from slippage as compared with other classes of belting, especially under small-pulley, high-speed conditions.

Formerly leather belting could not be used under moist conditions, but the perfection of waterproof leather belting during the last 20 years has opened this field to leather. In recent years chrome and combination tanned leather belting with heat and acid resistant qualities has been developed. Ordinary leather belting can not be used under moist atmospheric conditions and is not successfully employed where excessive heat is a condition of service or acid resistant qualities are necessary. Leather was the original material used for belt manufacture.

Leather belting is used chiefly for transmission purposes. It was formerly sometimes employed for conveyor and even elevator service, but its high price has forced it out of this field. The high initial cost of leather belting often makes it economical for the user to install a belt of some other class, and this has been a factor influencing the development of rubber and other classes of belting in America during the last decade. It would be as untrue to say that the highest-priced belt will always render the most economical service as to say that the lowest-priced belt is always cheapest in the long run; the most

desirable class of belt, and of quality within that class, depends upon the conditions in each case.

The production of leather belting is more easily entered upon than the manufacture of rubber or balata belting; the manufacturing processes are, in general, less complicated. On this account leather belting is produced in most foreign countries to a much greater extent than other classes, small leather-belting industries being found in countries all over the world. In the United States there are more establishments making leather belting than all other classes combined. The small local industries in foreign countries constitute a very important competitive factor in the aggregate, even though the quality of their products does not compare with American, British, or continental European leather belting of standard makes. Imported leather belting, after paying transportation charges and customs duties, is so much higher in price than local products that foreign consumers frequently find it economical to use inferior local products.

#### WOVEN COTTON AND STITCHED CANVAS BELTING

Woven cotton and stitched canvas belting are the principal classes of textile belting produced in America. Woven cotton belting is a solid 1-piece fabric made from cotton yarns. The weaving is done under tension, on heavy looms, each strand of cotton being subjected to severe stress during the process. The belt is of uniform thickness and width, with a double selvage. The use of untreated solid woven cotton belting is limited to light transmission and conveyer work under perfectly dry conditions, as moist conditions result in excessive stretch. Woven cotton belting treated with asphalt, linseed oil, paraffin, or other special proofings has been developed for use in any place where a stitched canvas belt is suitable, and treated woven cotton belting has found a growing market in recent years.

Stitched canvas belting is made of several folds or plies of cotton duck stitched together lengthwise, various weights of cotton duck being used, 32 ounces to the square yard being the heaviest. After being stitched the belt is treated with a special proofing compound to increase its durability and help it withstand atmospheric conditions. Stitched canvas transmission belting is used largely in agricultural work of all kinds, especially on threshing machines.

An important share of the United States production of solid woven cotton and stitched canvas belting is used for light conveyor and some elevator services, such as handling parcel-post mail in mail-order houses and post offices, handling packages, foodstuffs, and other in-door services. In this field the low cost of textile belting gives it a strong competitive position; the initial cost of cotton and canvas belting is lower than for any other classes.

#### WOVEN HAIR BELTING

In the foreign trade in transmission belting a class of woven belting of great importance is the class known as camel's-hair belting, manufactured from hair and cotton yarn. This is a solid woven belting; it is not made in plies. After weaving the belt is always treated with a special heavy oil compound for preserving its life and pliability. The camel's hair used is not the hair of the Arabian camels, but of the camels of central Asia, according to manufacturers, who claim a

greater elasticity for the true camel's-hair belting than for any other class. During the early period of service this belt usually requires taking up a few times, but thereafter is claimed to give no further trouble on this account and to be practically unaffected by moisture or by heat up to 300°. It is particularly recommended for use in hot, steamy places and in oil-well work or other places where the belt frequently comes in contact with mineral oils. The belt is not generally recommended for service with step pulleys, shifters, idlers, or as an endless belt. There are many substitute hair beltings, but it is unnecessary to describe them at length.

A wide use of woven hair belting for power transmission is reported in many foreign markets, where it has been introduced chiefly by British and German manufacturers. The original camel's-hair belting was first produced in 1873, and it was first manufactured in the United States in 1890. There are but two manufacturers of hair belting in the United States, and the product has a very minor position in the total United States belting trade. It is manufactured principally in England, Germany, France, Belgium, and Italy and has a wide use throughout Europe, as well as in many tropical countries where its heat and moisture-resisting attributes make it especially suitable. Camel's-hair belting is relatively high priced, as indicated by the British export statistics for recent years, making it a close second to high-grade leather belting in initial cost and much higher than low-grade leather, as well as balata, rubber, and other classes of belting. Except for a few countries separate export statistics covering this product are not available; in German trade returns the exports are reported in a class which covers hair and cotton belting together.

## THE UNITED STATES BELTING INDUSTRY

A brief statement regarding the United States belting industry, compiled from reports issued by the Bureau of the Census, together with other data from private sources, is worth while to show the size and relative importance of each branch of the industry, and particularly to show the United States belting production on a basis of weight, divided by classes and also divided between transmission and other types of belting. Official statistics are not available on all these points, and the following statements are in part estimates, but they are made from the most accurate information procurable and supported by statistical data as far as possible.

### RUBBER AND BALATA BELTING

Rubber-belting manufacture in the United States had its period of early development in the eighties; the Bureau of the Census reported only 2 manufacturers specializing in rubber belting and hose in 1879 as compared with 17 in 1889. The manufacture of rubber belting is usually carried on in factories producing other rubber products, such as mechanical rubber goods or tires. In United States census reports the information on factories with rubber and balata belting as their major product was formerly combined with information on factories whose principal product was rubber hose; in recent census reports even this subdivision has been discontinued; therefore, census figures on the rubber-belting industry alone can not be separated.

Although balata is closely allied with rubber, the balata belting industry is not treated as a part of the rubber industry in census reports, but is treated as a part of the textile belting industry. The number of firms specializing in rubber belting and hose has been reported by the census as between 15 and 19 from 1889 to 1921; the total number of firms which manufacture rubber and balata belting being larger.

A fairly complete but unofficial list shows at least 30 United States firms manufacturing either rubber or balata belting; only 4 of these firms specialize in belting as practically their sole product. Of the remaining firms the greater number produce a general line of such mechanical and molded rubber goods as rubber belting, hose, packings, valves, and mats; 6 specialize in tires and produce belting as an important but minor line; and 2 firms produce all sorts of rubber goods including tires, rubber footwear, mechanical rubber goods, and rubber sundries and specialties. Only 4 of the firms produce balata belting, and perhaps one-fourth of the United States manufacturers of rubber and balata belting also produce solid woven cotton or stitched canvas belting. Of the 30 manufacturers of rubber and balata belting considered above 10 have their factories in New Jersey, 6 in New York, 5 in Ohio, 3 in California, 2 in Massachusetts, 3 in Pennsylvania, and 1 in Delaware. According to the Census Bureau 36 separate establishments reported rubber belting in 1923.

The following table shows statistics of the Census Bureau on the production of rubber belting for census years; the quantity, in pounds,

is available for only 1927 and 1929. A large item under the "other" class consists of automobile fan belts.

PRODUCTION OF RUBBER BELTING IN THE UNITED STATES

Year	Transmission	Conveyor	Other	Total
1914.....				87,989,405
1919.....				22,436,242
1921.....				13,068,798
1923.....				24,266,881
1925.....	\$15,145,579	\$5,868,238	\$2,467,255	23,481,072
1927.....	12,601,016	5,973,031	3,372,993	21,946,950
1929.....	13,146,125	8,213,067	4,417,253	25,776,445
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
1927.....	23,172,883	15,758,579	4,456,179	43,387,641
1929.....	21,574,339	15,442,548	8,006,483	45,024,540

The report for 1927 shows 19 firms manufacturing rubber transmission belting against 23 in 1925, 18 manufacturing conveyor belting against 17 in 1925, and 9 manufacturing other rubber belting against 8 in 1925; but several firms manufacture all three types, and the aggregate number of manufacturers of rubber belting is not stated. However, the total number appears not to have changed materially from 1925 to 1927.

The reports show New Jersey as the State leading in the production of transmission belting in 1927, with a value of \$9,185,727 against \$6,941,883 for Ohio, and \$7,045,272 for all other States (including California, Illinois, Massachusetts, New York, and Pennsylvania). Ohio led in the production of conveyor belting with \$6,836,126, followed by New Jersey with \$4,936,149, and the total for other States was \$3,986,304. In addition to the States mentioned above, the "other" rubber belting was also produced in Colorado, Georgia, Minnesota, and Washington in 1929.

The exports of rubber belting from the United States in 1923, valued at \$2,032,310, amounted to 8.4 per cent of the total production. In 1929, exports amounted to 5,670,159 pounds, valued at \$3,056,236, representing 12.6 per cent of the quantity produced and 11.9 per cent of the value, indicating slightly lower export prices than domestic prices. The importance of exports increased for this industry during the period in question.

Statistics of the Rubber Manufacturers' Association, on the sales value of rubber belting production reported by members, as presented in the following table, show that the total value of rubber belting sales in 1931 was around 50 per cent of the average for 1927-1929. Sales of elevator and conveyor belting are grouped in this table, and these sales held up better in 1930 and 1931 than sales of transmission belting. The volume of business has probably been better than indicated by the value statistics, on account of lower prices.

SALES VALUE OF RUBBER BELTING

Year	Transmission	Conveyor and elevator	Other	Total
1927.....	\$11,012,926	\$5,562,892	\$1,187,059	\$17,762,877
1928.....	10,338,321	5,708,951	811,599	16,858,871
1929.....	10,647,651	7,021,938	513,930	18,183,519
1930.....	8,038,146	5,322,981	372,172	13,733,299
1931.....	4,871,034	3,326,824	653,129	8,850,987

## LEATHER BELTING

Census statistics for 1849 show only 8 establishments engaged primarily in the manufacture of leather belting in the United States; in 1859 the number had increased to 46, and in 1869 to 91, as compared with 169 in 1923. The beginning of this industry in the United States took place much earlier than in the case of the rubber-belting or woven-belting industry, and about three times as many firms produce leather belting as produce other classes of belting. The value of products of the leather-belting industry was nearly twice as great in 1923 as in 1914, and since the average prices of packer's heavy steer hides were between 14 and 17 cents in 1923 and between 19 and 20 cents in 1914 it is likely that the quantity of leather belting produced increased at about the same rate as the value. The following table shows the development of the industry from 1849 to the present time as reported by the Bureau of the Census.

## LEATHER BELTING

Year	Estab- lishments	Wage earners	Wages	Cost of materials	Value of products
1849.....	8	39	\$15,000	\$112,000	\$161,000
1859.....	46	354	135,000	915,000	1,482,000
1869.....	91	808	454,000	3,231,000	4,558,000
1879.....	36	1,227	606,000	5,020,000	6,526,000
1889.....	93	1,342	781,000	6,133,000	8,634,000
1899.....	104	1,667	914,000	7,500,000	10,623,000
1904.....	117	2,032	1,165,000	9,317,000	14,220,000
1909.....	139	3,006	1,861,000	15,623,000	23,692,000
1914.....	151	2,951	2,070,000	15,480,000	23,036,000
1919.....	172	2,765	3,260,000	28,157,000	40,481,000
1921.....	164	2,268	2,842,000	13,076,000	19,168,000
1923.....	169	3,167	3,907,000	24,660,000	37,724,000
1925.....	168	2,644	3,505,450	18,868,230	31,810,926
1927.....	173	2,164	2,925,416	16,185,267	27,265,752
1929.....	207	2,602	3,549,721	20,769,778	35,631,682

The value of products of the industry, as stated in the table, includes other products than leather belting produced by firms allocated to this industry, but does not include a small secondary production of leather belting by firms allocated to other industries, the value being \$681,753 in 1925, \$507,293 in 1927, and \$125,130 in 1929. The value of products produced by the leather belting industry in 1927 and 1929 are reported as follows: In 1927, leather belting, \$21,269,504, belt repairs, \$681,000, leather packing, etc., \$4,139,865, other products, \$1,175,383; in 1929, leather belting, \$25,498,863, belt repairs, \$1,127,295, leather packing, etc., \$3,725,710, other products, \$5,279,814.

The total value of leather belting produced in 1927 was therefore \$21,776,797 and in 1929, \$25,623,993. Only a small part of this was round belting.

The quantity and value of flat belting and the value of other types in 1927 and 1929 were as follows: Flat belting in 1927, 9,739,859 pounds, \$16,811,558; 1929, 13,051,299 pounds, \$23,478,916. Value of other types, 1927, \$4,965,239; 1929, \$2,145,077.

The State with the largest number of leather belting manufacturers in 1929 was New York with 32, followed by Massachusetts and Pennsylvania with 18 each, Ohio with 14, Illinois with 12, California

10, Missouri and New Jersey 9 each, Connecticut 8, Michigan and Tennessee 7 each, Indiana and Washington 6 each, Texas 5, and Wisconsin 4. The remaining 31 plants were scattered in 17 States. The leather belting industry is very widely distributed, and there was a large increase in the number of establishments allocated to the industry in 1929.

Massachusetts led in the value of production of flat leather belting in 1929 with 2,932,657 pounds, followed by New York with 2,241,657, Pennsylvania 1,549,282, Illinois 1,113,556, Ohio 476,089, Michigan 440,313, Indiana 315,800, Missouri 299,641, and California 298,682 pounds, the production of all other States amounting to 3,383,622 pounds.

There are no statistics for production of leather belting available for 1930 or 1931. Statistics of tanners' production of belting leather indicate a very slight decline in 1930 compared to 1929, and a decline of over 20 per cent in 1931 compared to 1930, which may perhaps give an idea of the trend.

PRODUCTION OF LEATHER BELTING BY KIND AND VALUE, BY STATES, 1927

State	Aggregate value of products	Total value	Flat		Other, value	Belt repairs
			Pounds	Value		
United States.....	\$27, 265, 752	\$21, 269, 504	9, 739, 859	\$16, 811, 558	\$4, 457, 946	\$651, 000
Illinois.....	2, 165, 995	1, 880, 337	967, 809	1, 582, 833	297, 504	23, 384
Massachusetts.....	5, 211, 281	3, 995, 796	2, 025, 489	3, 540, 057	455, 739	34, 774
Missouri.....	906, 330	837, 954	468, 365	705, 794	132, 160	36, 931
New York.....	4, 546, 564	3, 444, 678	1, 564, 225	3, 083, 774	360, 904	250, 446
Ohio.....	732, 142	646, 028	380, 803	601, 295	44, 733	63, 984
Pennsylvania.....	3, 647, 869	2, 990, 982	1, 633, 707	2, 475, 667	515, 315	25, 678
Other States.....	10, 035, 571	7, 473, 729	2, 699, 461	4, 822, 138	2, 651, 591	245, 803

<sup>1</sup> In addition, leather belting to the value of \$507,293 was manufactured as a secondary product by establishments engaged primarily in other lines of manufacture.

Leather belting is usually the principal product of the establishment which produces it. In 1919 about \$4,948,000 worth of leather belting was produced in establishments not classified with the leather belting industry; in 1921 about \$573,000, and in 1923 about \$240,000. As side lines, for the utilization of leather not suitable for belting manufacture, sole leather, leather hydraulic packing, harness leather, and all sorts of leather specialties are produced, and in addition belt dressings are often manufactured. Very few, if any, United States manufacturers of leather belting produce cotton or rubber belting.

The production of firms allocated to the leather-belting industry is not itemized by products, except in the recent reports issued by the Bureau of the Census. It is, therefore, not possible to state the value of leather belting produced over a long series of years. A special compilation, made by courtesy of the Bureau of the Census for 1923, shows that the total value of leather belting production reported for that year was \$30,587,087, whereas the value of the total products of the industry was \$38,087,000. The value of United States leather belting exports in 1923 was \$1,698,622, or 5.6 per cent of the production. In 1929, the total production of leather belting was valued at \$25,623,993, and the value of exports was \$2,038,396, or 7.8 per cent of the production. The domestic consumption may



be estimated (production less exports) at about 12,950,000 pounds, valued at \$23,586,000.

The proportion of salaries to wages in the leather belting industry is high as compared with other industries. In 1927, salaries amounted to \$2,018,941 and wages \$2,925,416; in 1929 salaries were \$2,358,594 and wages \$3,549,721. In 1919, salaries amounted to 45.3 per cent of salaries and wages combined; in 1929 the proportion had declined to 39.9 per cent. These proportions, while high, are much lower than in the textile belting industry. Information is not available concerning the proportions in the rubber belting industry.

### WOVEN BELTING

It has already been stated that a number of rubber belting manufacturers produce either woven cotton or stitched canvas belting. There are many additional firms which manufacture woven beltings. In United States census reports, belting other than leather and rubber was formerly reported in conjunction with fire hose, the establishments classified in this industry being engaged primarily in the manufacture of cotton and canvas belting, woven camel-hair belting, solid woven waterproof belting, endless belts of seine twine, and cotton and linen fire hose. Balata belting was also included in this classification. The classification prior to the census of 1909 was "belting and hose, linen." The following table shows summary statistics reported for this industry for the census years 1909 to 1929. The statistics for recent years cover only the production of belting in this industry, but do not include the production of belting in textile mills which is included in another classification but nowhere separately reported until 1929.

#### BELTING, OTHER THAN LEATHER AND RUBBER, MADE FROM PURCHASED FABRICS

Year	Estab- lishments	Wage earners	Wages	Cost of materials	Value of products
1909.....	28	1, 118	\$483, 000	\$3, 529, 000	\$5, 491, 000
1914.....	31	952	460, 000	2, 869, 000	4, 441, 000
1919.....	41	2, 479	2, 202, 000	11, 642, 000	19, 176, 000
1921.....	31	1, 119	1, 108, 000	3, 396, 000	6, 390, 000
1923.....	13	335	350, 736	1, 674, 041	3, 311, 527
1925.....	11	254	264, 246	1, 595, 602	3, 111, 500
1927.....	11	343	410, 698	1, 489, 841	3, 211, 875
1929.....	9	255	298, 910	1, 328, 090	2, 788, 627

The quantity of belting produced, in pounds, was not reported, but may be roughly estimated on the basis of the average value per pound of cotton belting exports from the United States. The reports do not subdivide the total production by types of belting.

In the report on the cotton small wares industry for 1929, the Census Bureau for the first time reported the production of textile belting by textile mills. This is in addition to the production reported above. The production so reported was valued at \$3,665,679, of which transmission belting was valued at \$1,366,265, conveyor belting at \$872,969, and other cotton belting, not specified as to type, at \$1,426,445. Of the transmission belting produced, New Jersey

provided \$610,828, New York \$291,477, and other States \$463,960. The number of firms producing belting, and considered in this paragraph, was not reported. The weight of belting produced was not reported, but may be roughly estimated on the basis of the average per pound value of United States exports in 1929. On the basis of the division of types stated, the production of textile belting reported elsewhere in this section may be estimated by types, though perhaps not very accurately.

The total reported United States production of textile belting in 1929 was, therefore, \$6,454,306. Estimated production in weight by types, based on the above, would be 4,211,000 pounds of transmission, valued at \$2,406,000; 2,689,000 pounds of conveyor belting, valued at \$1,537,000; and 4,396,000 pounds not specified, valued at \$2,511,000.

The exports of cotton belting from the United States in 1929 amounted to 424,119 pounds, valued at \$242,368, or about 3.8 per cent of the production. Export trade is apparently not so large a factor in the business of cotton belting manufacturers as for firms producing other classes of belting.

#### SUMMARY OF PRODUCTION, 1923 AND 1929

The total production of belting of all classes was estimated in 1923 when the census report was originally published. From information given above it is possible to make a similar estimate for 1929.

In 1923, the total production of transmission belting was estimated at 55,500,000 pounds valued at \$50,387,000. Of the total value leather belting constituted 61 per cent, rubber belting 30 per cent, and textile belting 9 per cent. Of the total weight, rubber belting was 50 per cent, leather 32 per cent, and textile 18 per cent.

In 1929, the total production of transmission belting, counting belting not specified as to type to be transmission such as round leather belting, small rubber fan belts for automobiles, etc., is estimated at 52,432,000 pounds, valued at \$48,502,000. Of the total value, leather belting constituted 52.9 per cent, rubber 36.2 per cent, and textile 10.9 per cent. Of the total weight rubber was 56.4 per cent, leather 27.2, and textile 16.4 per cent. Rubber belting appears, therefore, to have gained in the transmission belting field since 1923. The accuracy of this conclusion may, however, be questioned on the ground that some of the rubber belting officially reported as other than transmission or conveyor in the census reports for 1929 should have been classified as elevator belting, and should not be counted as transmission. Confirming this, moreover, the census statistics classify only 31.9 per cent of the value of all rubber belting produced in 1929 as conveyor belting, while reports of the Rubber Manufacturers Association for that year classify 38.6 per cent of the total as conveyor and elevator belting. The indications are, therefore, not conclusive.

The total production of conveyor and elevator belting in 1923 was estimated at about 23,400,000 pounds, valued at \$13,191,000. Of the total, rubber belting constituted 60 per cent of the weight and 67 per cent of the value, the remainder being textile beltings.

The estimated total production of conveyor belting only for 1929 is 18,131,000 pounds, valued at \$9,750,000, of which rubber con-

stituted 85.2 per cent of the weight and 84.2 per cent of the value, with textile belting supplying the remainder.

Of the total weight of all types of belting produced in 1929, rubber belting constituted 63.8 per cent against 54 per cent of the estimated total weight in 1923, while leather belting dropped from 21.8 to 20.2 per cent of the total, and textile belting declined from 24.2 per cent in 1923 to 16 per cent in 1929.

To a considerable degree United States rubber belting owes its important position in export trade to the fact that it is usually produced in connection with other rubber goods which also have a large foreign market. A firm can handle its foreign trade in belting through factory branches much more economically if the product is only one unit among several rather than the major line. A market which might not justify the establishment of a branch office for the sale of belting alone may present an entirely different outlook when a complete line of mechanical rubber goods is to be offered or when belting is handled in connection with tires. Furthermore, the trade channels for rubber hose and packing are closely allied to those for belting, and the contact with industrial users is increased by having a varied line to offer. The relatively greater average production of rubber and balata belting than of leather and of woven belting per establishment is another element of strength. It means that the average rubber-belting manufacturer is larger, has greater resources, and is in a better position to aggressively solicit foreign business than the average producer of leather and woven belting.

The United States market for transmission belting is being affected to some extent by the use of direct motive power. It is now generally admitted that group drives are often more economical than individual electric drives, and that the choice depends on a full consideration of the original cost of installation, the costs of maintenance and operation, and the particular conditions of service. Electric drive seldom eliminates all pulleys and belts; their use as auxiliaries is required to some extent in connection with almost every electric installation.

The electrical developments have at any rate not prevented a marked increase in the consumption of belting as compared to pre-war years. This increased use of belting is a natural result of the universal availability of power in small units. Thousands upon thousands of small shops all over the United States, which now use belting in connection with small power units, would have been unable to secure power a score of years ago. While the small belts have little individual value, they constitute in the aggregate an important market for belting.

The market for conveyor and elevator belting in America has been relatively larger than in foreign countries, the high cost of labor causing a growing employment of labor-saving devices. United States manufacturers of these types of belting have blazed the way and are now in position to reap whatever benefit may accrue from a slowly growing foreign recognition of the necessity of installing such devices. The description of the various classes of belting in the introduction will give an idea of the varied uses of conveyor and elevator belting in American industry.

## EXPORTS FROM LEADING MANUFACTURING COUNTRIES

### UNITED STATES

The pre-war volume of United States export trade in machinery belting can not be stated because separate export statistics for belting were not reported prior to 1920. Leather belting exports in pre-war years were included in the class described as "belting leather," the value of the exports of this class covering both unfinished belts and finished leather belting in the fiscal year ended June 30, 1913, being \$1,105,168 as compared with exports of "belting leather" and "leather belting" valued at \$1,793,700 in 1923, when the two products were separately reported. American exports of belting leather for use in the production of finished belts decreased while annual exports of finished leather belting increased as compared with pre-war days, until 1930, when a sharp decline began. Exports of leather belting were grouped with "belting leather" in the official statistics until 1920, when the two classes were separated.

With the outbreak of the World War there was a cessation of belting exports from Germany and a decrease in the exports from Great Britain and France, these three countries leading in the export trade in belting at that time. United States manufacturers naturally secured an important share of the trade thus made available. Development of local belting industries, particularly in the leather belting line, took place in many countries during and following the war period and local production of leather or rubber belting is now a factor of considerable competitive importance in several European as well as other foreign markets, notably Argentina, Brazil, British South Africa, and Canada.

Despite the growth of local production in many markets, and since 1918 the return to serious competition of European manufacturers, the United States is now holding a considerable share of the trade developed during and after the war, more particularly the trade in rubber belting.

The total amount of belting exported from the United States from 1920 through 1931 is shown in the following table:

TOTAL AMOUNT OF BELTING EXPORTED FROM UNITED STATES, 1920-1931

Year	Quantity	Value	Year	Quantity	Value
	<i>Pounds</i>			<i>Pounds</i>	
1920.....	6,719,078	\$8,944,567	1926.....	6,069,716	\$4,944,355
1921.....	3,178,535	2,868,540	1927.....	6,773,770	4,880,011
1922.....	3,682,308	2,904,495	1928.....	6,615,889	5,012,319
1923.....	4,984,323	3,890,647	1929.....	7,388,443	5,337,000
1924.....	5,061,622	3,925,880	1930.....	5,459,408	3,785,105
1925.....	5,897,989	4,680,622	1931.....	3,951,719	2,302,712

The United States ranks second only to the United Kingdom in the belting trade as a whole, and its share of the total world market has remained steady during this 10-year period. In 1920 we supplied 23.7 per cent of world-belting exports. This dropped to 18.1 per cent in 1921, and remained at about that level until 1925 when the United States produced 21.7 per cent of the total. The share increased steadily until 1929, at which time we were sending abroad 24.5 per cent of the world's belting exports. In 1930 the depression here began to show itself and the United States percentage dropped to 22.7 of the total.

The annual volume and value of United States belting exports, by classes, as officially reported from 1920 to 1930 is shown in the following table. The weights are net and the values are invoice values. Statistics are for calendar-year periods.

## EXPORTS OF BELTING FROM THE UNITED STATES

Year	Rubber belting		Leather belting		Cotton belting	
	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>	
1920.....	3,900,000	\$3,532,277	2,819,078	\$5,412,290	(1)	(2)
1921.....	2,300,000	1,446,063	878,535	1,422,477	(1)	(2)
1922.....	2,390,000	1,265,999	1,092,308	1,638,496	(1)	(2)
1923.....	5,548,468	2,032,310	1,064,449	1,698,622	371,406	\$159,715
1924.....	3,572,255	2,089,056	1,111,385	1,668,287	378,182	168,537
1925.....	4,078,651	2,424,661	1,346,332	1,992,853	473,006	263,108
1926.....	4,173,363	2,656,699	1,347,813	1,993,924	548,540	291,762
1927.....	5,010,592	2,681,815	1,241,912	1,877,253	521,266	320,943
1928.....	4,887,206	2,785,238	1,250,586	1,941,684	478,097	285,397
1929.....	5,670,159	3,056,236	1,294,165	2,038,396	424,119	242,368
1930.....	4,297,789	2,195,424	885,573	1,416,466	276,046	173,215
1931.....	3,191,417	1,382,149	581,264	823,707	179,038	96,856

<sup>1</sup> Estimates on basis of average values of rubber-belting exports from Canada.

<sup>2</sup> Cotton belting first officially reported in 1923.

Three classes of belting are shown in United States official export statistics since 1923, the weight in pounds and the value being shown for each class. In previous years cotton-belting exports were included in a general class covering miscellaneous cotton manufactures. The weight of rubber-belting exports was first officially reported in 1922, but both the weight and the value of United States leather-belting exports have been officially reported since 1920.

The table of annual percentages of the total weight of American belting exports supplied by each class from 1923 (the first year available) to 1931, indicates that export trade in rubber belting has held up much better than exports of other classes in recent years.

## PERCENTAGE OF TOTAL WEIGHT OF UNITED STATES BELTING EXPORTS SUPPLIED BY EACH CLASS OF BELTING

Year	Rubber	Leather	Cotton	Year	Rubber	Leather	Cotton
1923.....	71.2	21.3	7.5	1928.....	73.9	18.9	7.2
1924.....	70.6	21.9	7.5	1929.....	76.7	17.5	5.8
1925.....	69.2	22.8	8.0	1930.....	78.7	16.3	5.0
1926.....	68.7	22.2	9.1	1931.....	82.1	13.7	4.2
1927.....	73.9	18.4	7.7				

The average value per pound of United States exports of belting is shown in the following table. Note that the tendency has been for the per pound value of rubber belting to decline, and for cotton

belting to increase, while for leather belting the price has been relatively more stable.

AVERAGE VALUE PER POUND OF UNITED STATES BELTING EXPORTS

Year	Rubber belting	Leather belting	Cotton belting	Year	Rubber belting	Leather belting	Cotton belting
1921.....	\$0.63	\$1.62		1927.....	\$0.53	\$1.51	\$0.61
1922.....	.49	1.50		1928.....	.57	1.55	.60
1923.....	.57	1.59	\$0.43	1929.....	.54	1.57	.57
1924.....	.58	1.50	.44	1930.....	.51	1.60	.62
1925.....	.59	1.48	.55	1931.....	.43	1.42	.54
1926.....	.64	1.48	.53				

RUBBER BELTING

United States exports of rubber belting are widely distributed throughout the world. Following is a table of the volume of exports to the 25 largest markets in 1931 compared to 1922 and 1930. The countries of destination are arranged according to the number of pounds of rubber belting shipped to them in 1931. The rank of the countries as "best customers" for United States rubber belting is indicated for each year.

EXPORTS OF RUBBER BELTING TO PRINCIPAL MARKETS

Country of destination	1922		1930		1931	
	Quantity	Rank	Quantity	Rank	Quantity	Rank
	<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>	
United Kingdom.....	98,882	7	388,513	1	295,667	1
Union of South Africa.....	612,212	1	286,306	3	241,765	2
Sweden.....	51,013	13	271,489	5	211,809	3
Denmark.....	3,993	39	158,219	10	192,305	4
Mexico.....	328,020	3	334,495	2	185,486	5
Brazil.....	128,945	4	149,038	11	156,910	6
Philippine Islands.....	60,488	10	160,609	9	149,857	7
British India.....	39,216	15	165,492	8	147,013	8
Chile.....	120,548	6	274,736	4	143,627	9
France.....	125,295	5	187,868	7	143,402	10
Argentina.....	88,409	8	114,153	15	130,745	11
Belgium.....	50,699	14	123,398	12	121,078	12
Canada.....	335,960	2	217,587	6	119,085	13
Cuba.....	39,496	15	120,100	14	102,385	14
Italy.....	730	54	101,326	15	63,006	15
Mozambique.....	26,629	20	80,577	16	60,346	16
Peru.....	17,351	24	122,795	13	59,073	17
China.....	25,302	21	53,033	20	53,946	18
Norway.....	31,233	10	48,273	22	46,011	19
Netherlands.....	33,003	18	38,660	24	44,184	20
Java and Madura.....	5,602	35	43,412	23	34,672	21
Morocco.....			68,593	18	34,514	22
Spain.....	11,712	29	67,014	19	29,329	23
Finland.....	51,125	21	50,223	21	18,803	24
Japan.....	38,009	16	25,808	33	13,329	25

It may be noted that 10 of the 25 countries shown in the table (United Kingdom, Sweden, Denmark, France, Belgium, Italy, Norway, Netherlands, Finland, and Spain) are in Europe; three (Canada, Mexico, and Cuba) are in North America; four (Brazil, Chile, Argentina, and Peru) are in South America; five (the Philippines, India, China, Java and Madura, and Japan) are in Asia; and three (Union of South Africa, Mozambique, and Morocco), are in Africa. Australia and New Zealand, formerly important markets, no longer rank among the first 25. All of the European markets listed, except Finland, export considerable quantities of belting, and each of these

countries is given separate treatment as a competitor in the international trade in belting in a later section, as are also Canada, Australia, and Japan. It is a tribute to aggressive American salesmanship that 11 out of our 25 leading markets for rubber belting are strong competitors in the export belting trade, while several of the others also produce belting for their local markets.

The United Kingdom has advanced from seventh place among markets for United States rubber belting in 1922 to leadership in 1930 and 1931. General business development during the period, the increasing number of United States branch factories located there, and a greater appreciation of the quality of United States belting have brought about this change. The Union of South Africa has dropped to second, due to increased local production, and unfavorable tariff legislation. Canada, which was second in 1922, is now thirteenth, the growth of home factories and the tendency toward empire trade being responsible for the loss. Reflecting the relatively prosperous conditions in the Scandinavian markets, and the favor with which United States products are there regarded, Sweden and Denmark have risen from thirteenth and thirty-ninth to third and fourth places, respectively, and Mexico's slower rate of industrial expansion is shown by its change from third to fifth position as a market for United States rubber belting.

In the following tables United States rubber belting exports to all countries are shown for 1924 to 1931. Besides the markets listed in the preceding table, the following countries each took over 10,000 pounds of rubber belting from the United States in 1931: Austria, Greece, Latvia, Poland, Switzerland, Turkey, Honduras, Panama, Newfoundland and Labrador, French Indo-China, and British Malaya.

UNITED STATES EXPORTS OF RUBBER BELTING TO FOREIGN COUNTRIES DURING  
THE CALENDAR YEARS 1924-1931

QUANTITY

Country of destination	1921	1925	1926	1927	1928	1929	1930	1931
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Austria.....		7,721	10,635	18,327	12,246	12,692	15,998	10,686
Azores and Madeira Islands.....		305			111		158	65
Belgium.....	31,633	98,933	168,343	99,698	131,398	123,452	123,398	121,078
Bulgaria.....					180	1,237	1,436	5,301
Czechoslovakia.....		201	1,475	1,109	157	9,903	7,985	4,542
Denmark.....	18,667	25,348	34,034	125,008	149,356	201,658	158,219	192,305
Estonia.....		14			3,037	1,763		311
Finland.....	37,859	43,861	38,709	70,367	71,538	70,232	50,223	18,803
France.....	108,006	117,522	67,633	83,248	116,659	164,476	187,868	143,402
Germany.....	14,887	6,905	29,435	56,597	88,571	97,290	47,753	20,520
Gibraltar.....	66	1,376			3			
Greece.....	38	45	553	4,923	2,452	9,576	20,258	25,046
Hungary.....			3,743	12,720	8,017	2,721	4,145	359
Iceland.....		376					37	33
Irish Free State.....			55		145			
Italy.....	9,271	5,686	1,787	20,156	26,444	68,963	101,326	63,006
Latvia.....	15,113	11,770	22,099	28,043	23,056	19,862	14,456	8,943
Lithuania.....			583			136		54
Malta, Gozo, and Cyprus.....			137		38		112	293
Netherlands.....	8,451	14,797	14,318	20,076	50,302	61,637	38,660	44,184
Norway.....	25,614	38,680	16,422	30,443	42,220	47,031	48,273	46,011
Poland and Danzig.....	213	370	222	20,584	57,790	35,787	22,631	20,064
Portugal.....	42	469	1,686	349	1,342	11,396	2,291	3,620
Romania.....	42		54	43	1,716	4,072	3,337	1,985
Soviet Russia in Europe.....	52	32,333	36,853	4,740	17,902	18,686	1,771	6,341
Spain.....	17,445	28,883	24,488	46,134	90,231	105,988	67,014	29,329
Sweden.....	56,586	118,901	79,905	157,721	149,342	235,783	21,489	211,809
Switzerland.....	4,768	6,386	5,628	4,377	7,825	13,521	17,632	14,222

## UNITED STATES EXPORTS OF RUBBER BELTING TO FOREIGN COUNTRIES DURING THE CALENDER YEARS 1924-1931—Continued

QUANTITY—Continued

Country of destination	1924	1925	1926	1927	1928	1929	1930	1931
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Turkey.....				5,113	4,179	9,100	13,862	2,162
United Kingdom.....	401,236	412,485	270,609	452,231	458,443	343,944	388,513	295,667
Yugoslavia and Albania.....					125	1,340	1,965	8,168
Canada.....	293,741	372,703	359,533	215,524	306,774	290,594	217,587	119,085
British Honduras.....	281	512	348	71	379	339	211	220
Costa Rica.....	3,529	2,705	5,599	5,169	4,090	4,187	9,756	1,532
Guatemala.....	7,178	8,084	13,416	10,038	7,253	14,190	7,476	10,290
Honduras.....	3,440	4,203	3,897	19,288	5,607	9,891	12,962	25,311
Nicaragua.....	8,106	7,716	7,238	4,906	9,262	11,809	5,884	5,398
Panama.....	2,096	5,987	7,960	6,860	3,620	8,166	24,830	8,651
Salvador.....	1,725	6,994	5,987	4,204	7,594	7,878	5,772	6,894
Mexico.....	419,866	499,443	386,296	424,569	400,013	460,099	334,495	185,486
Newfoundland and Labrador.....	10,028	10,583	17,119	15,247	31,688	33,681	21,422	20,940
Bermudas.....	449	58	53	327	108	166	572	325
Barbados.....	298	200	79	48			233	70
Jamaica.....	3,859	1,052	1,893	1,094	825	1,936	2,340	816
Trinidad and Tobago.....	981	1,766	5,458	4,445	2,084	620	2,517	373
Other British West Indies.....	4,334	1,086	2,508	1,164	3,417	912	214	250
Cuba.....	54,725	110,673	77,200	139,994	105,949	161,102	120,100	102,385
Dominican Republic.....	3,055	6,168	6,589	7,191	5,010	7,847	7,295	5,644
Netherland West Indies.....	570	40	600	295	1,010	905	814	813
French West Indies.....	151	99	245	212	22	209	162	462
Haiti, Republic of.....	3,055	2,244	1,341	3,424	4,173	3,531	5,096	1,885
Virgin Islands of United States.....	37	67	48	346	255	111	31	124
Argentina.....	129,284	161,990	125,823	212,009	231,441	222,123	114,153	130,745
Bolivia.....	44,119	37,119	46,915	69,911	93,034	114,487	66,147	21,083
Brazil.....	191,933	251,539	144,969	364,695	272,919	450,359	149,038	156,910
Chile.....	415,576	315,732	584,052	618,303	315,622	520,441	274,736	143,627
Colombia.....	24,379	25,940	24,583	32,289	32,483	31,854	23,440	21,203
Ecuador.....	5,980	440	182	322	1,158	3,708	1,450	944
Falkland Islands.....	60							
British Guiana.....	2,550	16,884	4,702	21,463	40	12,262	1,811	1,794
Surinam.....	16,615	7,575	21,537	8,668	1,213	755	6,755	853
French Guiana.....		111					78	
Paraguay.....	3,711	770	4,472	4,964	5,513	4,115	141	803
Peru.....	37,741	46,191	75,501	72,456	101,270	110,366	122,795	59,073
Uruguay.....	11,971	10,972	19,423	27,717	27,709	24,091	33,565	10,813
Venezuela.....	14,085	14,328	40,054	17,029	17,508	15,525	6,857	11,325
Aden.....	20	22	28				113	20
Arabia.....							258	207
British India.....	65,415	90,731	101,112	122,546	122,942	155,903	165,492	147,013
British Malaya.....	6,443	3,649	12,287	30,877	22,198	18,009	25,051	22,203
Ceylon.....	1,185	3,459	4,338	1,526	434	2,494	1,274	11,854
China.....	29,888	50,187	69,869	36,738	84,549	98,400	53,033	53,946
Chosen.....	4,788	9,663						
Java and Madura.....	29,885	62,236	50,681	72,918	61,089	78,902	43,412	34,672
Other Netherland India.....	3,848	6,451	8,306	3,175	5,201	9,777	5,132	16,059
French Indo-China.....	5,842		12,109	6,364	3,520	18,933	13,276	4,469
Hong Kong.....	2,026	797	2,217	220	1,907	5,464	2,265	1,394
Iraq.....			1,067		467	1,083	2,513	147
Japan.....	147,430	73,080	68,065	136,176	114,069	26,824	25,806	13,329
Kwantung.....	49,307	1,099	17,908	11,529	9,162	5,477		656
Palestine.....	2,033	1,848	426			551	1,182	611
Persia.....		105	510	2,342		1,355	5,651	1,482
Philippine Islands.....	99,931	120,263	153,638	162,054	172,635	183,549	160,604	149,857
Siam.....	1,432	2,385	7,612	5,645	7,414	12,176	9,648	3,962
Soviet Russia in Asia.....			3,242	7,156	382	161	656	
Syria.....			45	2,416	1,546	1,959	4,568	2,841
Other Asia.....				11,523	821		701	845
Australia.....	223,397	262,625	265,296	276,415	201,156	191,499	91,153	12,990
French Oceania.....	56	2,518	1,203	170	1,203	7,462	3,777	185
French Oceania.....	3,345	228	640	3,406	30	111		26
New Zealand.....	31,537	16,857	13,490	9,619	14,556	12,423	12,888	4,549
Other Oceania.....	28	30						
Ethiopia.....						701		
Belgian Congo.....	1,715	6,330		2,866	673	4,474	444	262
British East Africa.....	13,002	32,370	19,366	13,987	11,283	11,477	17,120	7,855
Union of South Africa.....					304,153	404,930	285,734	241,765
Other British South Africa.....	345,731	248,758	355,157	394,621	1,444	572	729	29
Gold Coast.....					14,042	38,075	1,411	980
Nigeria.....						346		769
British West Africa.....	387	202	48	3,174	3,081	6,836	(?)	(?)
Egypt.....	924	5,488	565	1,907	2,739	4,890	8,778	3,569
Algeria and Tunisia.....	10,448	30,353	8,301	13,890		3,831	6,599	287
Madagascar.....							1,763	112

¹ Includes Syria.

² Gold Coast and Nigeria shown separately after 1928.



UNITED STATES EXPORTS OF RUBBER BELTING TO FOREIGN COUNTRIES DURING  
THE CALENDAR YEARS 1924-1931—Continued

## QUANTITY—Continued

Country of destination	1924	1925	1926	1927	1928	1929	1930	1931
Other French Africa					611	4,062	100	1,948
Italian Africa			41				62	58
Liberia		146	74	50	106	176		
Morocco	144	61,160	77,832	1,260	34,091	28,788	68,593	34,514
Mozambique	22,551	77,478	89,540	90,632	174,511	124,996	80,577	60,346
Other Portuguese Africa		421	1,363	7,397	691	5,736	1,332	573
Canary Islands			125	24	60	47	417	730
Other Spanish Africa			360		2,011	100	8,262	461
Total	3,572,255	4,078,651	4,173,363	5,010,592	4,887,206	5,670,159	4,297,789	3,191,417

## VALUE

Austria		\$4,687	\$6,019	\$8,504	\$5,683	\$5,981	\$8,551	\$4,019
Azores and Madeira Islands		131			70		89	30
Belgium	\$18,663	54,214	87,799	51,259	61,321	52,919	50,850	46,552
Bulgaria					172	757	870	2,522
Czechoslovakia		196	697	575	75	4,363	3,956	2,266
Denmark	14,717	18,001	23,594	69,028	60,159	79,492	75,443	72,222
Estonia		25			1,554	909		165
Finland	25,615	30,604	28,486	36,282	38,297	36,052	25,651	8,017
France	44,246	58,505	46,815	47,755	65,228	109,411	85,402	56,842
Germany	9,020	4,128	20,269	30,238	45,347	38,219	24,976	12,203
Gibraltar	76	884			2			
Greece	48	45	22	2,660	1,467	6,295	14,613	14,726
Hungary			2,617	6,414	4,081	1,320	1,933	159
Iceland		224					22	12
Irish Free State			42		72			
Italy	3,574	3,880	1,073	11,925	13,269	37,669	50,050	27,602
Latvia	10,690	8,076	14,083	15,850	13,349	11,613	8,266	4,448
Lithuania			439			102		35
Malta, Gozo, and Cyprus			52		34		72	145
Netherlands	6,808	9,055	8,915	9,650	27,942	27,747	18,420	16,694
Norway	13,837	21,406	10,716	16,254	19,066	21,490	18,395	17,983
Poland and Danzig	156	309	104	10,408	26,124	16,604	11,128	8,483
Portugal	52	382	611	291	450	4,095	1,240	2,063
Rumania	48	22	22	42	1,044	3,111	1,989	889
Soviet Russia in Europe	100	22,230	26,203	3,187	9,309	10,367	858	3,302
Spain	10,418	14,217	15,609	18,365	43,332	42,644	29,909	11,403
Sweden	31,659	73,936	50,486	78,588	88,035	113,311	121,087	76,097
Switzerland	3,498	4,133	4,150	3,018	5,298	6,823	8,671	5,842
Turkey					2,644	5,022	5,113	1,173
United Kingdom	230,114	263,850	197,182	266,450	338,110	188,505	193,392	128,367
Yugoslavia and Albania					44	652	1,173	3,117
Canada	163,199	212,330	222,758	116,297	156,795	204,054	135,488	82,720
British Honduras	314	411	192	77	386	392	195	221
Costa Rica	2,447	1,841	5,789	4,058	3,136	2,928	1,471	997
Guatemala	4,677	6,651	9,712	5,452	4,144	12,644	5,649	5,331
Honduras	3,226	4,022	4,165	10,988	4,828	7,651	7,804	10,500
Nicaragua	6,152	6,922	7,818	4,229	7,540	9,281	4,169	3,169
Panama	1,654	3,392	5,341	4,037	2,351	4,676	10,062	4,102
Salvador	1,085	4,783	5,054	2,625	4,880	5,113	3,677	3,385
Mexico	247,615	299,155	265,068	229,474	238,613	277,000	194,111	99,191
Newfoundland and Labrador	6,236	8,889	15,831	10,827	22,485	24,046	13,341	12,628
Bermudas	271	59	60	262	128		368	161
Barbados	177	215	108	20		61	291	39
Jamaica	2,803	815	1,448	1,010	433	948	1,191	282
Trinidad and Tobago	629	851	4,387	2,950	1,068	323	1,618	209
Other British West Indies	4,250	841	2,806	937	2,420	483	103	198
Cuba	33,222	66,137	52,701	75,390	59,468	79,139	57,809	38,476
Dominican Republic	2,743	5,311	5,537	5,941	3,960	5,766	5,129	3,765
Netherlands West Indies	467	25	422	109	786	555	484	376
French West Indies	130	106	220	156	22	233	99	328
Haiti, Republic of	2,327	1,673	1,304	2,329	3,076	2,832	3,583	1,236
Virgin Islands of United States	15	74	53	164	269	52	16	79
Argentina	85,207	111,103	89,839	129,778	132,473	125,360	59,004	58,526
Bolivia	30,442	25,665	36,083	44,317	58,391	69,007	39,765	12,470
Brazil	106,850	169,895	106,686	203,646	167,554	242,955	81,595	63,112
Chile	250,912	185,523	308,100	302,661	152,135	286,015	149,675	53,997
Colombia	15,913	19,298	20,220	20,327	25,053	21,817	14,897	12,544
Ecuador	3,587	419	153	240	825	2,166		487
Falkland Islands	108							
British Guiana	1,335	9,096	3,620	10,541	59	6,754	1,102	730
Surinam	9,039	4,292	13,843	5,457	868	654	3,953	589
French Guiana			71					36
Paraguay	1,781	668	3,098	2,892	3,660	2,591	88	512
Peru	25,612	31,455	53,649	44,480	61,968	67,458	71,667	29,430

UNITED STATES EXPORTS OF RUBBER BELTING TO FOREIGN COUNTRIES DURING  
 THE CALENDAR YEARS 1924-1931—Continued

VALUE—Continued

Country of destination	1924	1925	1926	1927	1928	1929	1930	1931
Uruguay.....	\$9,966	\$9,115	\$17,693	\$21,634	\$27,449	\$17,569	\$19,160	\$6,811
Venezuela.....	10,213	10,554	30,523	11,588	11,862	9,012	5,278	5,857
Aden.....	22	24	27				76	12
Arabia.....							161	98
British India.....	42,267	66,218	74,225	79,312	78,115	86,183	83,441	65,116
British Malaya.....	3,355	2,089	8,335	11,577	13,134	10,405	13,368	8,552
Ceylon.....	1,125	1,736	3,394	888	277	1,627	654	4,079
China.....	19,089	30,139	37,397	17,503	44,527	45,223	22,685	22,448
Chosen.....	3,126	4,767						
Java and Madura.....	22,209	45,575	38,385	41,794	32,669	45,376	22,352	15,061
Other Netherland India.....	2,745	4,705	7,096	1,715	2,799	5,532	3,155	5,683
French Indo-China.....	4,436		9,967	4,279	2,259	12,540	8,522	2,465
Hong Kong.....	1,511	604	1,881	206	1,157	2,935	1,066	466
Iraq.....			637		269	845	1,723	78
Japan.....	82,124	38,081	35,637	54,573	49,577	12,823	15,265	7,158
Kwantung.....	18,688	448	9,510	3,315	3,071	2,128		240
Palestine.....	1,553	1,293	240			346	775	258
Persia.....		62	185	1,793		683	2,995	617
Philippine Islands.....	63,933	72,173	99,502	94,400	99,327	110,257	89,413	75,279
Siam.....	1,020	1,822	6,380	3,967	4,887	5,849	4,621	1,963
Soviet Russia in Asia.....			1,983	3,578	236	87	678	
Syria.....			49	983	879	1,358	1,044	1,171
Other Asia.....				5,929	469			507
Australia.....	113,40	111,936	145,705	126,023	107,550	109,481	44,083	7,402
British Oceania.....	61		1,194	163	447	3,494	287	57
French Oceania.....	1,760	151	348	1,529	14	63		18
New Zealand.....	19,619	10,525	7,842	7,760	8,314	8,452	6,975	2,398
Other Oceania.....	27	24						
Ethiopia.....						398		
Belgian Congo.....	1,149	4,481		1,185	346	278	265	102
British East Africa.....	11,117	18,452	13,367	7,455	6,533	6,376	10,735	4,056
Union of South Africa.....								
Other British South Africa.....	198,408	136,129	204,350	178,909	139,368	166,504	115,035	84,309
Gold Coast.....					6,875	602	291	11
Nigeria.....						18,966	784	390
British West Africa.....	269	93	13	2,005	1,730	3,723	(?)	(?)
Egypt.....	698	2,171	349	1,045	2,107	3,588	6,732	1,602
Algeria and Tunisia.....	5,681	14,810	5,178	7,542		1,769	3,250	304
Madagascar.....							795	76
Other French Africa.....			11		150	1,630	49	1,210
Italian Africa.....							31	30
Liberia.....		122	23	49	127	66		
Morocco.....	144	9,632	46,748	419	16,484	12,010	32,150	11,078
Mozambique.....	12,695	50,450	54,732	52,639	79,583	56,759	39,587	16,914
Other Portuguese Africa.....		345	965	5,262	249	2,275	479	313
Canary Islands.....			86	10	41	31	305	371
Other Spanish Africa.....			231		983	51	3,775	165
Total.....	2,089,056	2,424,661	2,656,699	2,681,815	2,785,238	3,056,236	2,195,424	1,382,149

<sup>1</sup> Includes Syria.<sup>2</sup> Gold Coast and Nigeria shown separately after 1928.

The United States share of the total world export of rubber belting remained steady from 1920 to 1925, and has declined slightly in recent years. In 1920 we supplied 37.1 per cent of the world trade in this commodity, in 1925, 37.4 per cent, and in 1930, 34.6 per cent.

## LEATHER BELTING

The United States export trade in leather belting is now far less than one-third as large in quantity as the trade in rubber belting, but it is about two-thirds as great in value. The trade is heavy with India and China, and fairly so with the United Kingdom, Mexico, Canada, and the Philippines. Many Latin American countries are good customers, but apart from England and Germany Europe is poorly represented. The accompanying table shows the number of pounds of leather belting exported to the 20 most important markets in 1922, 1930, and 1931. The countries are arranged in the order of their importance as customers in 1931.

## LEADING FOREIGN MARKETS FOR UNITED STATES LEATHER BELTING

Country of destination	1922		1930		1931	
	Quantity	Rank	Quantity	Rank	Quantity	Rank
	<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>	
British India.....	142,081	2	192,142	1	188,764	1
China.....	219,897	1	168,879	2	113,249	2
United Kingdom.....	74,160	6	49,673	5	38,138	3
Mexico.....	100,062	5	80,990	3	33,383	4
Canada.....	100,714	4	57,932	4	26,868	5
Philippine Islands.....	23,272	10	35,063	7	22,218	6
Union of South Africa.....	18,127	12	33,445	8	18,930	7
Colombia.....	19,414	11	12,889	12	14,402	8
Argentina.....	29,908	8	17,868	11	13,087	9
Cuba.....	128,101	3	38,526	6	10,351	10
Chile.....	12,465	15	30,026	9	9,979	11
British East Africa.....			2,793	29	6,675	12
Peru.....	15,285	13	10,861	15	6,515	13
Dominican Republic.....	11,657	16	4,748	23	5,826	14
Germany.....	73	42	6,754	18	4,891	15
Japan.....	41,631	7	6,377	20	4,812	16
Guatemala.....	6,959	27	2,312	31	3,719	17
Panama.....	2,897	38	2,846	27	3,547	18
Costa Rica.....	6,392	29	3,240	25	3,129	19
Salvador.....	4,256	32	5,202	21	2,728	20

It will be noted that shipments to British India, the Union of South Africa, Germany, British East Africa, and Panama have increased since 1922. All of the other important markets have decreased in volume during this period. Local manufacture of leather belting, aided by tariffs, plus the increased competition from other large manufacturing countries, have brought about this change.

In the tables following, United States leather belting exports to foreign countries are shown in detail for 1924 to 1931. The relative unimportance of the trade with Europe is apparent.

## UNITED STATES EXPORTS OF LEATHER BELTING TO FOREIGN COUNTRIES DURING THE CALENDAR YEARS 1924-1931

## QUANTITY

Country of destination	1924	1925	1926	1927	1928	1929	1930	1931
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Austria.....			95	234	2,442			390
Azores and Madeira Islands.....	200		58		10	12		
Belgium.....	185	4,085	1,711	148	1,408	138	143	131
Bulgaria.....	1,097							
Czechoslovakia.....				288				
Denmark.....		506	61		48	76	686	1,261
Finland.....	195	32				30	39	
France.....	957	6,848	3,408	1,855	1,059	1,545	2,539	2,012
Germany.....	3,642	20,123	7,385	17,653	28,037	16,607	6,754	4,891
Greece.....	847	1,936	71	1,235	126	133	528	94
Hungary.....	60							
Irish Free State.....		506						
Italy.....	4,877	15,602	3,418	11,430	34,684	25,420	9,473	457
Latvia.....	250	261						
Lithuania.....				606				
Malta, Gozo, and Cyprus.....						57		
Netherlands.....	908	432	55	605	971	35	2,088	15
Norway.....	882	114	1,244	368	1,027	423	763	
Portugal.....	20	2,999	2,217	909		896	436	
Rumania.....		254			172	867	566	382
Soviet Russia in Europe.....	16,647	2,075	5,969	177	1,421	938	2,044	
Spain.....	1,795	8,797	1,074	562	321	484	380	213
Sweden.....	2,386	1,285	2,144	1,396	2,950	1,622	1,742	1,040
Switzerland.....		129	4,263	1,293	1,320	1,052	534	526
Turkey.....								507
United Kingdom.....	94,133	74,179	73,246	80,244	81,929	66,920	49,673	38,138
Canada.....	92,361	149,564	116,804	118,487	177,190	167,334	57,932	26,868

## UNITED STATES EXPORTS OF LEATHER BELTING TO FOREIGN COUNTRIES DURING THE CALENDAR YEARS 1924-1931—Continued

QUANTITY—Continued

Country of destination	1924	1925	1926	1927	1928	1929	1930	1931
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
British Honduras.....	351	717	774	146	414	221	343	83
Costa Rica.....	8,102	5,543	9,425	6,733	7,207	8,494	3,240	3,129
Guatemala.....	6,917	10,477	10,042	12,714	7,491	7,049	2,312	3,719
Honduras.....	1,966	2,372	2,574	2,171	1,825	3,510	1,926	1,702
Nicaragua.....	2,509	4,722	6,014	3,419	6,079	3,898	2,999	1,761
Panama.....	5,673	4,533	5,204	5,375	5,020	3,450	2,846	3,547
Salvador.....	6,385	8,311	7,932	6,752	5,688	8,106	5,202	2,728
Mexico.....	115,475	137,225	155,009	116,336	111,427	101,315	80,990	33,383
Miquelon and St. Pierre Islands.....		10				40		
Newfoundland and Labrador.....	4,555	2,831	6,542	5,119	3,429	4,686	3,801	2,335
Bermudas.....	245	299	409	23	78	258	144	220
Barbados.....	1,521	540	604	766	930	530	821	128
Jamaica.....	766	1,338	617	934	412	332	129	1,990
Trinidad and Tobago.....	1,318	2,973	3,684	2,166	1,693	2,297	409	676
Other British West Indies.....	828	1,268	1,437	418	953	491	3,690	126
Cuba.....	149,654	149,391	108,779	104,853	81,263	56,221	38,526	10,351
Dominican Republic.....	13,471	16,707	16,345	10,240	12,300	10,150	4,748	5,826
Netherlands West Indies.....	511	176	805	910	1,665	1,634	1,208	489
French West Indies.....						104		
Haiti, Republic of.....	1,500	1,639	1,144	3,918	3,093	688	1,910	966
Virgin Islands of United States.....	131	1,991	731	213	860	1,207	58	28
Argentina.....	30,999	42,166	34,820	46,739	42,078	39,162	17,868	13,087
Bolivia.....	6,017	331	4,870	296	7,544	10,134	863	662
Brazil.....	20,288	31,504	29,803	31,174	18,835	27,686	12,375	2,898
Chile.....	40,119	39,537	46,610	38,174	47,847	106,851	30,026	9,979
Colombia.....	15,849	39,991	33,263	44,066	44,819	30,793	12,889	14,402
Ecuador.....	4,723	2,094	3,305	1,224	4,659	5,288	4,358	3,014
British Guiana.....	3,255	3,202	2,588	1,480	1,855	1,171	971	570
Surinam.....		413	1,805	982	1,048	338	444	325
French Guiana.....		16						
Paraguay.....	221	334	364	676	844	30	14	51
Peru.....	25,178	15,884	18,924	22,340	26,764	14,783	10,861	6,515
Uruguay.....	2,407	1,183	1,553	1,803	3,991	3,354	2,911	330
Venezuela.....	26,770	23,553	35,453	37,456	25,367	30,730	24,041	13,665
British India.....	110,812	160,776	208,503	219,541	165,300	217,840	192,142	188,764
British Malaya.....	138	4,176	107	266	203	142	798	265
Ceylon.....		26	431					15
China.....	143,236	178,792	204,877	110,618	124,802	176,083	168,879	113,249
Chosen.....	56							
Java and Madura.....	6,956	25,374	36,482	18,285	37,313	23,920	12,448	941
Other Netherlands India.....	498	859	41	1,066	907	732	3,372	2,202
Hong Kong.....	1,552	1,843	4,349	2,220	1,015	271	403	1,256
Iraq.....						8		
Japan.....	17,853	11,787	19,109	11,614	6,099	7,626	6,377	4,812
Kwantung.....	4,465	389	3,288	4,778	6,224	3,751	1,950	444
Palestine.....	160	1,133	21	8			286	
Philippine Islands.....	37,236	38,790	33,966	47,830	23,185	24,803	35,063	22,218
Siam.....	831	18	19	1,228		493		
Soviet Russia in Asia.....				35	675			
Syria.....					857	295		
Other Asia.....					47			
Australia.....	11,744	11,745	15,731	18,682	9,150	16,577	6,703	774
British Oceania.....			148	200	329	14		187
French Oceania.....	67	51	300	40	40	508	307	
New Zealand.....	14,454	18,888	14,426	7,917	14,274	6,699	6,986	2,234
Other Oceania.....	8	28						
Belgian Congo.....		148						
British East Africa.....	420	4,023	1,036	2,450	3,147	2,986	2,793	6,675
Union of South Africa.....					27,973			
Other British South Africa.....	28,952	27,094	21,270	35,654	2,587	34,644	33,445	18,930
Gold Coast.....							40	1,259
Nigeria.....						12		
British West Africa.....	170	48	165		3,274	(2)	(2)	(2)
Egypt.....	10,895	15,654	5,781	11,782	8,514	6,615	3,711	1,346
Algeria and Tunisia.....	185							
Other French Africa.....								6
Liberia.....	162	537	90	87	18			
Morocco.....				376				
Mozambique.....	719	2,152	2,967	32	2,050	250	594	
Other Portuguese Africa.....			54	15			24	
Canary Islands.....								37
Other Spanish Africa.....								
Total.....	1,111,185	1,346,332	1,347,813	1,241,912	1,250,586	1,294,165	885,573	581,264

1 Includes Syria.

2 Gold Coast and Nigeria shown separately after 1928.

## UNITED STATES EXPORTS OF LEATHER BELTING TO FOREIGN COUNTRIES DURING THE CALENDAR YEARS 1924-1931—Continued

## VALUE

Country of destination	1924	1925	1926	1927	1928	1929	1930	1931
Austria.....			594	\$491	\$1,950			\$455
Azores and Madeira Islands.....	\$200		66		12	\$35		
Belgium.....	430	\$8,571	2,116	191	1,350	251	\$146	113
Bulgaria.....	1,879							
Czechoslovakia.....				275				
Denmark.....	14	848	95		35	137	1,161	1,668
Finland.....	1,140	85				110	78	
France.....	1,858	11,121	3,742	2,724	2,047	3,232	5,610	2,138
Germany.....	4,176	22,077	8,944	20,609	29,809	19,832	11,543	6,087
Greece.....	1,253	2,531	101	1,786	239	239	1,264	170
Hungary.....	27							
Irish Free State.....		718						
Italy.....	8,986	26,872	6,691	15,302	43,386	32,416	9,313	869
Latvia.....	118	360						
Lithuania.....				1,161				
Malta, Gozo, and Cyprus.....						72		
Netherlands.....	1,116	696	162	841	1,424	177	1,885	15
Norway.....	895	187	1,604	325	1,209	487	1,174	
Portugal.....	64	4,204	3,022	1,678		1,412	398	
Rumania.....		385			654	1,570	1,366	1,020
Soviet Russia in Europe.....	25,278	3,027	10,407	280	2,760	1,780	4,813	
Spain.....	2,436	11,824	1,372	1,074	410	546	460	222
Sweden.....	2,930	1,660	2,502	2,254	3,956	2,129	2,156	1,158
Switzerland.....		320	3,531	2,462	2,724	1,894	755	694
Turkey.....								602
United Kingdom.....	138,965	102,126	119,838	128,614	127,557	118,663	90,264	61,450
Canada.....	93,907	138,982	119,849	129,896	205,700	197,381	72,246	34,849
British Honduras.....	617	1,288	1,114	207	531	442	623	120
Costa Rica.....	13,659	10,708	17,444	10,005	13,019	15,859	6,718	4,612
Guatemala.....	10,689	13,175	14,129	18,057	12,302	12,300	3,161	6,348
Honduras.....	3,545	4,463	5,605	4,901	4,444	6,095	4,110	2,279
Nicaragua.....	4,085	7,291	10,118	6,332	12,253	8,236	5,592	3,385
Panama.....	6,910	5,903	7,190	6,859	7,803	4,635	4,388	4,862
Salvador.....	8,884	10,893	9,874	10,352	7,993	14,556	8,810	4,415
Mexico.....	172,205	219,695	225,634	171,162	185,778	169,727	145,830	53,789
Miquelon and St. Pierre Is- land.....		12				51		
Newfoundland and Labrador.....	7,551	5,103	8,329	7,972	5,979	9,460	6,750	3,063
Bermudas.....	365	546	1,014	51	189	572	424	389
Barbados.....	2,768	945	914	1,076	1,162	786	1,097	143
Jamaica.....	1,290	2,156	956	1,592	815	3,546	287	1,941
Trinidad and Tobago.....	2,100	3,879	4,600	3,184	2,856	3,546	756	1,071
Other British West Indies.....	885	1,705	1,747	741	1,198	969	8,819	191
Cuba.....	253,011	263,676	176,712	171,659	143,246	99,542	72,686	15,665
Dominican Republic.....	21,477	24,451	26,588	17,529	21,297	20,465	9,059	12,246
Netherland West Indies.....	1,399	325	1,579	1,677	3,901	2,598	2,239	640
French West Indies.....						172		
Haiti, Republic of.....	2,489	2,619	2,154	7,044	6,235	1,050	4,163	1,897
Virgin Islands of United States.....	291	3,850	1,402	380	1,881	2,435	108	25
Argentina.....	42,394	68,928	51,560	71,822	78,912	61,202	31,920	20,024
Bolivia.....	10,555	415	8,942	436	9,945	8,596	1,174	1,631
Brazil.....	29,380	53,103	44,124	47,869	33,409	46,403	21,980	5,271
Chile.....	40,832	44,189	57,113	51,954	62,086	139,591	46,486	17,412
Colombia.....	28,068	68,738	50,761	70,615	79,040	51,277	23,073	21,839
Ecuador.....	11,863	3,544	4,017	2,092	7,603	10,824	8,650	5,656
British Guiana.....	5,599	5,039	3,023	3,033	3,893	2,230	1,962	1,015
Surinam.....		524	2,922	1,000	1,848	706	927	674
French Guiana.....		22						
Paraguay.....	401	601	566	1,007	1,483	57	34	94
Peru.....	34,410	25,807	29,218	33,837	46,769	28,759	20,447	11,196
Uruguay.....	2,301	1,984	2,845	3,158	6,664	5,229	4,113	697
Venezuela.....	39,526	35,780	55,898	64,546	43,755	56,274	41,059	21,054
British India.....	164,813	230,282	309,507	333,019	258,860	352,688	284,446	254,722
British Malaya.....	240	6,774	90	257	466	277	1,558	374
Ceylon.....		39	637					26
China.....	205,671	264,173	312,949	162,862	187,910	274,633	245,728	133,648
Chosen.....	50							
Java and Madura.....	13,501	41,926	55,280	30,488	65,948	49,819	24,227	1,351
Other Netherland India.....	1,133	1,183	60	1,620	1,171	2,249	6,279	3,901
Hong Kong.....	2,272	3,104	6,908	3,688	2,067	713	728	2,539
Iraq.....						13		
Japan.....	33,896	18,402	31,949	17,730	12,333	15,439	9,850	9,397
Kwantung.....	6,054	763	6,569	8,787	11,518	6,897	3,437	858

UNITED STATES EXPORTS OF LEATHER BELTING TO FOREIGN COUNTRIES DURING  
THE CALENDAR YEARS 1924-1931—Continued

VALUE—Continued

Country of destination	1924	1925	1926	1927	1928	1929	1930	1931
Palestine.....	1,837	1,887	\$38	\$10			\$547	
Philippine Islands.....	66,409	66,640	60,401	\$88,063	\$49,751	\$50,739	58,724	\$39,397
Siam.....	1,845	27	28	2,154		1,249		
Soviet Russia in Asia.....				40	514			
Syria.....					1,543	120		
Other Asia.....					99			
Australia.....	18,344	17,798	21,698	29,799	13,889	26,994	8,699	895
British Oceania.....			249	360	657	37		128
French Oceania.....	103	50	499	52	26	558	356	
New Zealand.....	31,231	29,886	22,826	13,062	22,365	10,828	11,240	3,628
Other Oceania.....	28	68						
Belgian Congo.....		675						
British East Africa.....	495	5,883	1,084	3,177	2,859	4,309	4,118	8,585
Union of South Africa.....					48,899	61,784	56,946	27,755
Other British South Africa } Gold Coast.....	57,399	49,538	37,223	63,047	5,908		31	389
Nigeria.....						10		
British West Africa.....	189	45	264		4,905	(2)	(2)	(1)
Egypt.....	17,250	22,655	8,161	16,033	12,644	10,928	6,582	1,512
Algeria and Tunisia.....	168							
Other French Africa.....								11
Liberia.....	335	473	169	195	19			
Morocco.....				479				
Mozambique.....	1,603	4,431	7,008	85	3,772	540	855	
Other Portuguese Africa.....			99	24			38	
Canary Islands.....								37
Total.....	1,668,287	1,992,853	1,995,924	1,877,253	1,941,684	2,038,396	1,416,466	823,707

<sup>1</sup> Includes Syria.

<sup>2</sup> Gold Coast and Nigeria shown separately after 1928.

In 1920 the United States supplied 33.5 per cent of the world trade in leather belting. By 1925 this had fallen to 17.3 per cent, and in 1930 it represented only 14.3 per cent of the world total.

COTTON BELTING

The United States export trade in cotton belting is not large when compared with the exports of woven beltings from the United Kingdom and Germany, but our share of the world trade is growing. In 1923, the first year for which complete figures are available, the United States sent abroad 4.4 per cent of the world's cotton belting exports. By 1930 this had increased to 5.1 per cent, although the actual volume had shrunk considerably. Canada is by far our largest customer for this commodity, taking 68,421 out of a total of 179,038 pounds exported in 1931. The Argentine, which in 1923 was our second largest market, has dropped from 49,156 pounds in 1923 to 6,973 in 1931. The table following shows 10 leading markets for exports of cotton belting from the United States, arranged in order of their importance in 1931.

## TEN LEADING FOREIGN MARKETS FOR UNITED STATES COTTON BELTING

Country of destination	1923		1930		1931	
	Quantity	Rank	Quantity	Rank	Quantity	Rank
	<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>	
Canada.....	203,593	1	119,738	1	68,421	1
Germany.....			24,113	2	15,208	2
Mexico.....	28,602	3	18,316	4	12,543	3
Honduras.....	77	44	3,891	11	9,064	4
Philippine Islands.....	4,094	11	1,638	17	7,783	5
Argentina.....	49,156	2	14,708	5	6,973	6
United Kingdom.....	7,844	5	5,553	7	6,681	7
France.....	5,111	10	20,142	3	6,642	8
Italy.....	248	35	1,428	19	6,519	9
Norway.....	1,944	21	3,335	13	5,440	10

In the following tables the detailed cotton belting exports to all countries are shown in quantity and value in dollars from 1924 to 1931.

## UNITED STATES EXPORTS OF COTTON BELTING TO FOREIGN COUNTRIES DURING THE CALENDAR YEARS 1924-1931

## QUANTITY

Country of destination	1924	1925	1926	1927	1928	1929	1930	1931
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Austria.....							25	
Belgium.....	2,783	7,571	130	193	109	415		35
Denmark.....	62	961	103	306	1,283	2,508	1,957	1,584
Finland.....	514	689	1,404	943	531	1,153	3,501	
France.....	209	21,865	44,206	27,581	7,829	9,418	20,142	6,642
Germany.....	10,411	11,992	39,915	39,915	42,227	29,216	24,113	15,208
Greece.....				445				
Iceland.....	1,562	360	348	790	1,340	769	438	
Irish Free State.....					50	519	217	
Italy.....	40	7,395	698	668	2,487	4,279	1,428	6,519
Latvia.....			899	96				
Netherlands.....	1,311	1,053	206	147	341	1,664	22	886
Norway.....	2,254	1,745	5,794	1,192	2,841	2,162	3,335	5,440
Poland and Danzig.....				4,530				
Portugal.....				15		10		
Rumania.....		74						
Soviet Russia in Europe.....	297	440	605	499	569	667		80
Spain.....		607	1,257	241	452	2,554	531	
Sweden.....	783	241	666	2,531	1,011	1,160	977	3,642
Switzerland.....	42			122	139	275	154	194
United Kingdom.....	13,404	13,654	10,284	39,310	9,638	13,354	5,553	6,681
Canada.....	165,621	201,049	268,239	141,612	252,231	218,714	119,738	68,421
British Honduras.....	144	170	370	68	174	168	261	1,049
Costa Rica.....	130	250	559	1,446	1,084	353	76	42
Guatemala.....	695	2,815	3,800	2,736	3,237	992	1,037	21
Honduras.....	39	759	589	257	2,628	560	3,891	9,064
Nicaragua.....	396	327	265	369	1,152	433	275	267
Panama.....	7,094	1,332	446	819	22	2,190	1,049	1,031
Salvador.....	551	942		540	5	2,452	1,597	
Mexico.....	47,282	45,669	38,057	29,698	28,228	29,493	18,316	12,543
Newfoundland and Labrador.....	198	108		95	40	419	460	110
Bermudas.....		90	154	214		112	261	
Barbados.....	110	110		194				114
Jamaica.....	160	60		435	398	114	300	101
Trinidad and Tobago.....	1,098	348	1,000	1,646	1,637	169	1,098	124
Other British West Indies.....	137	4,537	809	836	537	3,458	224	69
Cuba.....	17,286	24,500	23,268	39,905	8,526	8,261	3,603	3,328
Dominican Republic.....		918	1,339	1,188	525	483	251	497
Netherland West Indies.....					531		20	169
Haiti, Republic of.....	89		282	111		92		612
Argentina.....	54,501	36,424	31,242	64,879	33,641	13,934	14,708	6,973
Bolivia.....			3,713				1,190	264
Brazil.....	8,393	8,345	11,523	5,465	4,213	7,869	4,263	2,141
Chile.....	2,438	28,846	5,275	26,213	10,667	5,880	4,206	1,985
Colombia.....	5,037	4,318	2,547	3,736	9,796	6,130	2,456	658
Ecuador.....	2,050	432	331	126	471	611	312	143
British Guiana.....		372	78	85				

## UNITED STATES EXPORTS OF COTTON BELTING TO FOREIGN COUNTRIES DURING THE CALENDAR YEARS 1924-1931—Continued

## QUANTITY—Continued

Country of destination	1924	1925	1926	1927	1928	1929	1930	1931
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Surinam.....		337	457	1,702	767	400	610	620
Paraguay.....				673	435	649	543	
Peru.....	4,915	7,355	15,326	8,387	2,536	2,980	1,225	2,050
Uruguay.....	1,276		1,338		3,412	1,119	3,453	362
Venezuela.....	2,477	2,456	7,713	2,062	1,829	917	1,441	81
British India.....	3,531	4,397	3,308	853	677	12,808	518	
British Malaya.....		1,411	2,773					
Ceylon.....				300				
China.....	3,200	6,432	11,525	12,861	16,990	13,640	7,548	5,244
Java and Madura.....	213	2,008	4,347	2,503	930	271	75	
Other Netherland India.....						27		
Hong Kong.....		215			425	86	567	
Japan.....	2,271	2,321	3,157	2,047	922	55	415	248
Kwantung.....					1,466			
Palestine.....	104							
Persia.....						110		
Philippine Islands.....	11,916	9,773	5,354	6,815	4,827	5,042	1,638	7,783
Siam.....				9,645	2,425	982	682	
Soviet Russia in Asia.....		5						
Syria.....			215		310			
Australia.....	9,262	4,074	11,396	19,133	2,717	7,102	2,623	1,596
British Oceania.....				986	106			
French Oceania.....				3,094	905	268	4,725	124
New Zealand.....	452	1,148	3,505		53	41		
Belgian Congo.....			30					
British East Africa.....			72					
Union of South Africa.....				6,929	5,535	4,148		574
Other British South Africa.....	707	1,412	5,546		76			
Gold coast.....								40
Nigeria.....								2,892
British West Africa.....		30			76	282		
Egypt.....				100				796
Other French Africa.....								110
Liberia.....	80							
Morocco.....							2,006	
Mozambique.....	150			182		182	4,623	23
Total.....	378,182	473,006	548,540	521,266	478,097	424,119	276,046	179,038

## VALUE

Austria.....							\$30	
Belgium.....	\$2,131	\$9,612	\$125	\$130	\$61	\$651	402	\$12
Denmark.....	25	372	44	348	487	1,467	791	492
Finland.....	357	475	583	466	499	811	1,317	
France.....	75	17,996	41,099	19,703	9,026	6,272	12,944	3,615
Germany.....		9,707	11,264	53,318	32,965	21,809	18,249	11,047
Greece.....			131					
Iceland.....	432	245	275	503	1,525	434	278	
Irish Free State.....					32	321	177	
Italy.....	40	3,274	772	513	2,432	2,538	1,781	4,596
Latvia.....			591	40				
Netherlands.....	1,031	782	296	83	301	890	128	1,416
Norway.....	1,338	1,258	3,079	534	1,694	1,060	1,606	3,346
Poland and Danzig.....				1,962				
Portugal.....				19		21		
Rumania.....		43						
Soviet Russia in Europe.....	226	249	255	189	276	460		409
Spain.....		347	578	43	222	1,371	460	
Sweden.....	744	455	518	2,122	2,144	2,151	1,313	2,058
Switzerland.....	42			120	125	240	133	195
United Kingdom.....	8,970	8,090	6,011	16,379	6,970	9,322	4,763	4,391
Canada.....	52,152	91,258	110,059	73,827	128,492	110,783	72,344	34,123
British Honduras.....		79	136	330	69	83	338	506
Costa Rica.....	34	100	304	1,071	652	339	208	27
Guatemala.....	307	1,449	2,003	1,261	1,522	799	488	41
Honduras.....	30	583	416	241	1,332	495	1,974	3,278
Nicaragua.....	212	235	148	187	712	189	98	59
Panama.....	3,580	552	164	483	32	1,187	942	1,096
Salvador.....	266	471		255	19	991	773	
Mexico.....	26,523	27,445	20,871	17,141	22,920	19,966	9,225	4,806
Newfoundland and Labrador.....	81	88		57	23	289	324	175
Bermudas.....		21	58	123		40	121	
Barbados.....	43	53		222				131

1 Includes Syria.



UNITED STATES EXPORTS OF COTTON BELTING TO FOREIGN COUNTRIES DURING  
THE CALENDAR YEARS 1924-1931—Continued

VALUE—Continued

Country of destination	1924	1925	1926	1927	1928	1929	1930	1931
Jamaica.....	\$89	\$59		\$204	\$303	\$49	\$341	\$84
Trinidad and Tobago.....	436	159	\$708	1,062	880	161	951	56
Other British West Indies.....	61	1,225	350	596	602	1,898	200	62
Cuba.....	10,545	13,176	13,819	23,466	6,897	6,494	2,932	1,978
Dominican Republic.....	473	446	773	815	445	504	105	385
Netherland Indi.....					293		19	99
Haiti, Republic of.....	63		141	64	341	68	238	
Argentina.....	29,163	22,253	15,782	29,727	18,976	8,758	9,808	4,533
Bolivia.....			3,760				690	126
Brazil.....	4,895	6,519	7,955	3,263	2,762	5,500	3,880	1,251
Chile.....	1,350	16,541	4,049	10,817	5,681	4,070	2,331	1,058
Colombia.....	3,325	2,443	1,269	2,074	5,978	3,030	1,358	395
Ecuador.....	834	417	331	86	293	316	253	178
British Guiana.....		324	60	59	140			
Surinam.....		227	483	1,148	416	1,753	378	367
Paraguay.....				1,160	787	1,093	920	
Peru.....	2,179	4,322	8,763	4,681	1,602	1,356	782	1,255
Uruguay.....	440		696		2,303	584	2,477	172
Venezuela.....	1,130	1,718	4,437	1,460	1,189	1,173	1,109	85
British India.....	1,299	2,429	1,543	389	355	4,442	880	
British Malaya.....		588	2,073					
Ceylon.....				174				
China.....	1,922	2,793	5,528	5,927	8,032	6,823	3,347	1,716
Java and Madura.....	112	1,334	2,155	1,504	760		47	
Other Netherland India.....						45		
Hong Kong.....		130			252	54	251	
Japan.....	874	1,330	1,510	783	644	143	318	429
Kwantung.....					675			
Palestine.....	144							
Persia.....						240		
Philippine Islands.....	4,150	5,694	2,775	3,908	3,671	2,786	741	3,158
Siam.....				5,250	1,429	537	358	
Soviet Russia in Asia.....		2						
Syria.....			198		112			
Australia.....	5,672	2,237	6,719	23,594	1,804	3,108	1,044	666
British Oceania.....				1,132				
French Oceania.....				2,642	638	182	2,915	169
New Zealand.....	167	526	2,304	15	26	20		
Belgian Congo.....			62					
British East Africa.....				2,912	2,197	1,611		428
Union of South Africa.....	488	909	3,661		53			
Other British South Africa.....								16
Gold Coast.....								1,282
Nigeria.....					51	359		
British West Africa.....		11						
Egypt.....				63				973
Other French Africa.....								83
Liberia.....	27							
Morocco.....							835	
Mozambique.....	61			90		79	2,500	33
Total.....	168,537	263,108	291,762	320,943	285,397	242,368	173,215	96,856

1 Includes Syria.

## CANADA

The history of Canadian exports of belting from 1920 to 1930 is one of steady growth. In the first year mentioned it sent abroad 30,396 pounds of belting of all sorts, valued at \$48,331. By 1923 these figures had grown to 569,018 pounds, valued at \$279,840, by 1926 to 1,149,971 pounds and \$622,401, and in 1930 amounted to 1,381,501 pounds and \$501,158. In Canada rubber belting is produced in plants which manufacture principally tires and mechanical rubber goods, though some firms specializing in footwear also produce belting. Although the exact number of Canadian manufacturers of rubber belting is not available, only 47 separate rubber manufacturing establishments were reported for the entire Canadian industry in

1930, and the number of factories producing belting is believed to be less than a dozen.

Owing to the importance of the local Canadian market, and the lower tariff rates accorded to Canadian than United States products in many British possessions, several United States rubber manufacturing companies have established subsidiary Canadian plants, which are being used to an increasing extent as a base for exports of rubber belting. There are also a few strictly Canadian firms, such as the Gutta Percha & Rubber Manufacturing Co., which manufacture and export rubber belting. No balata belting is exported from Canada. Leather belting is produced in Canada but only trifling quantities are exported. However, Canada has rapidly become one of the important competitors in international trade in rubber belting. The following table shows the total Canadian exports of belting during the period 1920-1931.

TOTAL CANADIAN EXPORTS OF BELTING

Year	Quantity	Value	Year	Quantity	Value
	<i>Pounds</i>			<i>Pounds</i>	
1920.....	100,069	\$110,393	1926.....	1,149,971	\$622,401
1921.....	96,050	89,704	1927.....	1,227,417	502,220
1922.....	329,120	165,586	1928.....	1,233,031	483,204
1923.....	569,018	279,840	1929.....	1,493,084	598,688
1924.....	726,569	422,615	1930.....	1,381,501	501,158
1925.....	1,261,869	692,769	1931.....	903,470	270,539

As a practical matter, the Canadian rubber belting exports may be considered as an adjunct to the business of United States companies, though from a national standpoint the business must be regarded as competitive. The following table shows exports, by classes, for calendar years. The rapid growth in exports of rubber belting is very evident. The weights shown are net, and the values reported are based on the selling price as declared by exporters.

CANADIAN EXPORTS OF BELTING, BY CLASSES

Year	Rubber belting		Leather belting	
	Quantity	Value	Quantity <sup>1</sup>	Value
	<i>Pounds</i>		<i>Pounds</i>	
1920.....	69,673	\$62,062	30,396	\$48,331
1921.....	65,459	41,063	30,591	48,641
1922.....	320,642	152,105	8,478	13,481
1923.....	550,062	249,699	18,956	30,141
1924.....	702,198	383,864	24,371	38,751
1925.....	1,213,284	615,518	48,585	77,251
1926.....	1,149,222	621,210	749	1,191
1927.....	1,226,609	500,935	808	1,285
1928.....	1,225,294	470,902	7,737	12,302
1929.....	1,471,651	564,609	21,433	34,079
1930.....	1,374,222	490,299	6,829	10,859
1931.....	902,522	269,031	948	1,508

<sup>1</sup> Estimated.

For convenience in reference the average value per pound of Canadian rubber belting exports for the year 1920-1930 is shown in the following statement. The decline is more pronounced than in the

case of United States exports, but the more striking fact is that the value per pound of Canadian belting exports should be so much lower than that for United States. From 1926 to 1928 the decline in value was pronounced for Canada, while the value for United States rubber belting exports was relatively stable; since 1928, the average values have declined at approximately the same rate for the two countries.

## AVERAGE VALUE PER POUND OF CANADIAN EXPORTS OF RUBBER BELTING

1920	\$. 89	1924	\$. 56	1928	\$. 38
1921	. 63	1925	. 51	1929	. 38
1922	. 47	1926	. 54	1930	. 36
1923	. 56	1927	. 41	1931	. 30

More than half the exports of Canadian rubber belting goes to British possessions. The United Kingdom has replaced South Africa as the leading market, alone taking a third of the total. New Zealand, British Malaya, and Newfoundland and Labrador also take considerable quantities. More rubber belting is shipped from Canada to New Zealand than from the United States. Canada and the United States divide the rubber-belting trade with Newfoundland, the British West Indies, and British Guiana about equally. Outside the British possessions, Denmark, Argentina, Portuguese Africa, France, Brazil, and Chile are the leading markets. Canada exports little belting to continental Europe, except to France.

The following table shows the 15 leading markets for Canadian rubber belting in 1924, 1930, and 1931, the countries being arranged in order of their importance as markets during the latter year:

## FIFTEEN LEADING MARKETS FOR CANADIAN RUBBER BELTING

Country	1924		1930		1931	
	Quantity	Rank	Quantity	Rank	Quantity	Rank
	<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>	
United Kingdom	49,926	5	365,154	1	307,138	1
British South Africa	203,267	1	98,446	5	168,011	2
Denmark			350,889	2	109,584	3
Argentina	192,784	2	120,646	4	99,294	4
New Zealand	53,137	4	121,150	3	28,007	5
Portuguese Africa	17,777	9	6,457	18	24,054	6
British Malaya	17,722	10	14,783	14	23,842	7
Newfoundland and Labrador	8,187	15	15,206	12	21,743	8
France	984	26	60,768	6	20,668	9
Brazil	62,704	3	14,915	13	19,623	10
Chile	2,853	19	2,108	20	14,781	11
Sweden	930	25	9,286	16	9,983	12
Netherlands			27,058	8	8,723	13
United States			312	28	8,170	14
Italy	1,533	21	1,326	22	3,233	15

A growing number of countries are now taking belting from Canada. The tables following show official statistics of Canadian rubber-belting exports, by countries, for the calendar years 1925-1931.

## CANADIAN EXPORTS OF RUBBER BELTING TO FOREIGN COUNTRIES DURING CALENDAR YEARS 1925-1931

## QUANTITY

Country of destination	1925	1926	1927	1928	1929	1930	1931
Belgium.....	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Bulgaria.....			49	43,376	30,460	24,357	4,244
Denmark.....	8,764	92,537	150,123	93,325	135,306	350,889	109,584
Finland.....	29,427	48,533	35,795	3,167	703		
France.....				1,470	380	60,768	20,668
Italy.....	10,335	6,934	13,038	5,238	7,292	1,326	3,233
Netherlands.....	4,875	10,196	16,831	20,697	28,115	27,058	8,723
Norway.....		135		1,044	4,150	21,283	549
Spain.....				12,055	31,952	58,993	1,419
Sweden.....	54,649	35,785	24,880	19,218	10,168	9,286	9,983
Switzerland.....				143	608	532	
United Kingdom.....	185,176	217,005	105,826	227,874	344,153	365,134	307,138
United States.....	976	1,380	70		126	312	8,170
British Honduras.....	442	125	69	171	168		110
Costa Rica.....				434			
Guatemala.....						260	
Nicaragua.....		240	914	777			
Panama.....				166			
Mexico.....				458	1,156		1,159
Miquelon and St. Pierre Island.....	65		9	140	468		205
Newfoundland and Labrador.....	9,662	17,930	6,138	23,136	20,716	15,206	21,743
Bermudas.....	369	170	75	348	287	566	424
Barbados.....	702	40	442		468	59	1,236
Jamaica.....	4,769	2,667	4,553	3,979	3,864	6,226	2,613
Trinidad and Tobago.....	719	982	4,523	1,439	485	1,400	816
Other British West Indies.....	4,375	2,721	1,020	1,143	1,168	622	468
Cuba.....						228	
French West Indies.....			106	189			242
Haiti, Republic of.....		336	170	104	315		
Argentina.....	207,484	204,532	245,680	261,682	320,006	120,646	99,294
Bolivia.....							1,069
Brazil.....	113,540	57,519	82,959	112,480	73,396	14,915	19,623
Chile.....	1,384	3,024	7,623		32,336	2,108	14,781
Colombia.....	20	3,746	1,528	9,224	972	1,401	59
British Guiana.....	3,224	4,260	3,056	5,303	1,838	3,442	1,193
Peru.....		627	525	107	3,697		1,600
Uruguay.....	1,010	2,209	2,157	1,825	1,974	2,195	
Venezuela.....		2,220	1,431		134	1,007	208
British India.....	39,238	52,770	57,436	22,763	57,141	21,557	8,220
British Malaya.....	10,457	27,521	40,933	41,478	70,190	14,783	23,842
Ceylon.....	362	6,639		36	212		381
China.....	13,735	2,789					1,190
Netherland India.....	4,617	1,448	14,632	15,657	27,438	14,432	2,876
French Indo-China.....					6,326		2,474
Iraq.....				200			
Japan.....	28,465	41,674	49,512	41,964	12,563		
Australia.....	22,627	17,916	31,287	65,564	38,122	5,969	
Fiji Islands.....	1,846	725	1,119	615	1,476	1,149	837
New Zealand.....	144,800	102,660	107,344	120,303	142,628	121,150	28,007
British East Africa.....	10,750	10,211	7,501	6,703	3,805		2,076
British South Africa.....	27,473	164,558	206,802	59,296	54,589	98,446	168,011
British West Africa.....	2,028						
Portuguese Africa.....	14,919	4,458				6,457	24,054
Total.....	1,213,284	1,149,222	1,226,609	1,225,294	1,471,651	1,374,222	902,522

## VALUE

Belgium.....			\$212	\$15,890	\$8,461	\$7,754	\$1,320
Bulgaria.....			36				
Denmark.....	\$2,468	\$59,089	62,706	41,453	46,983	137,202	37,957
Finland.....	10,458	29,662	18,632	1,491	232		
France.....				531	136	15,462	4,941
Italy.....	4,651	2,859	5,276	2,183	2,636	413	871
Netherlands.....	3,105	4,809	8,244	10,887	12,142	12,211	2,402
Norway.....		66		456	925	5,683	175
Spain.....				5,028	11,464	21,592	378
Sweden.....	29,856	21,320	8,788	6,874	3,288	3,027	3,239
Switzerland.....				57	134	151	
United Kingdom.....	84,455	103,905	36,776	74,132	115,782	112,470	89,238
United States.....	690	851	45		81	215	1,080
British Honduras.....	220	92	42	95	83		50
Costa Rica.....				345			
Guatemala.....						220	
Nicaragua.....		210	712	566			
Panama.....				108			

CANADIAN EXPORTS OF RUBBER BELTING TO FOREIGN COUNTRIES DURING  
CALENDAR YEARS 1925-1931—Continued

VALUE—Continued

Country of destination	1925	1926	1927	1928	1929	1930	1931
Mexico.....				\$647	\$499		\$450
Miquelon and St. Pierre Island.....	\$44		\$7	73	133		132
Newfoundland and Labrador.....	4,306	\$8,765	2,241	8,203	11,023	\$5,473	8,273
Bermudas.....	298	134	59	271	199	453	235
Barbados.....	497	28	313	370	370	58	998
Jamaica.....	2,196	1,424	1,734	1,643	1,393	2,155	901
Trinidad and Tobago.....	508	753	2,505	582	319	794	372
Other British West Indies.....	4,058	2,295	793	875	1,121	452	312
Cuba.....						100	
French West Indies.....			86	148			118
Haiti, Republic of.....		278	98	68	176		
Argentina.....	94,115	103,067	86,875	86,700	109,542	38,566	27,431
Bolivia.....							501
Brazil.....	47,508	27,998	30,188	44,748	28,823	5,175	6,302
Chile.....	993	2,589	501		16,164	723	5,754
Colombia.....	15	2,949	5,185	6,388	687	786	27
British Guiana.....	2,366	3,178	1,954	3,347	1,816	2,342	598
Peru.....		161	368	64	1,500		530
Uruguay.....	510	932	770	646	704	804	
Venezuela.....		1,020	961		69	847	113
British India.....	14,864	23,248	19,623	7,785	20,978	8,272	4,248
British Malaya.....	6,251	14,724	13,206	16,479	27,501	5,655	8,113
Ceylon.....	173	2,988		14	73		133
China.....	5,834	1,127					384
Netherland India.....	2,193	590	4,350	5,953	11,034	5,251	1,022
French Indo-China.....					2,420		782
Iraq.....				76			
Japan.....	10,645	15,837	15,040	17,173	4,961		
Australia.....	15,631	12,927	15,086	26,224	18,703	3,140	
Fiji Islands.....	1,450	377	597	442	1,107	938	586
New Zealand.....	100,135	69,504	59,106	54,558	75,640	61,241	12,656
British East Africa.....	7,524	8,859	5,376	5,333	2,497		899
British South Africa.....	139,704	89,828	92,394	22,366	22,810	29,037	40,639
British West Africa.....	1,432						
Portuguese Africa.....	10,381	2,867				1,737	4,871
Total.....	615,518	621,210	500,935	470,902	564,609	490,299	269,031

Canada's share in the total world trade in belting is increasing. In 1920 it supplied only 0.1 per cent of world exports of this sort. By 1922 it sent out 1.5 per cent, by 1924, 2.8, in 1926, 4.2, in 1928, 4.2, and in 1930, 5.7 per cent. The trend is even more pronounced in regard to its share of the total rubber belting trade. In 1930 its proportion of the total amounted to only 0.3 per cent, while by 1930 it was over 11 per cent.

## UNITED KINGDOM

The British belting industry differs from that of the United States in that it is common for a single manufacturer to produce belting of several different classes. Rubber, leather, balata, and woven beltings are sometimes produced by a single firm. In the United States, manufacturers of rubber or balata belting sometimes produce woven beltings, but never any leather belting; neither do United States leather belting manufacturers often produce belting of other materials. There are numerous manufacturers of each of the various classes of belting in Great Britain. A few of the makes most commonly met with in export trade are leather belting produced by John Tullis & Co., balata belting produced by R. & J. Dick (Ltd.), hair belting produced by F. Reddaway & Sons, and rubber belting produced by the India Rubber, Gutta Percha & Telegraph Works Co., and by the North British Rubber Co. Many other British firms are of impor-

tance in the international trade in belting, but those named above are representative in their respective lines.

Great Britain led in the export trade in belting in pre-war days even more than at present, the volume of total exports of all classes of belting in 1912 reaching 13,835,136 pounds as compared with 5,006,206 pounds for Germany, then holding second position in the trade. Exports of machinery belting were formerly officially reported in British trade statistics in three classes: (1) Leather belting, (2) woven hair or cotton belting, and (3) other types, largely made up of balata with rubber belting and similar types also included; in recent years woven hair belting is reported separately from cotton belting, and balata belting has been separately reported, having rubber belting as the chief constituent of the "other types" since 1924.

Annual exports of belting from Great Britain are now considerably lower than in pre-war years. In 1923 the annual volume of exports of leather belting was less than half as great as in 1912, and in 1930 they were 29 per cent lower. Exports of balata and rubber belting combined are proceeding at about three-fifths of the 1920 rate, for increased United States competition and loss of trade in European markets since the war has cut into the British trade in balata and leather belting.

Great Britain is the leading country in point of total export trade in belting, but its share of the market is steadily decreasing. In 1920 it sent abroad 54.9 per cent of the world's belting exports. By 1922 this percentage had fallen to 43.1, by 1924 to 39.9, by 1926 to 34.9, 1928 to 34.8, and 1930 to 32 per cent. The total quantity and value of exports are shown in the table that follows, from 1921 through 1931, the value being stated in pounds sterling and also in United States currency computed on the basis of average annual exchange rates. It is of interest that whereas United States total exports of belting in 1931 were 46.5 per cent lower than in 1929, British exports were lower by 44.9 per cent, the exports of the two countries having declined at an approximately equal rate in 1930 (26 per cent) and 1931.

TOTAL BRITISH EXPORTS OF BELTING

Year	Quantity	Value (British currency)	Value (United States currency)	Year	Quantity	Value (British currency)	Value (United States currency)
	<i>Pounds</i>				<i>Pounds</i>		
1921.....	7,678,160	£1,930,414	\$7,412,789	1927.....	9,625,392	£1,533,499	\$7,452,805
1922.....	9,189,824	1,722,967	7,615,512	1928.....	10,146,060	1,616,765	7,873,655
1923.....	10,827,264	1,870,286	8,547,207	1929.....	10,512,208	1,550,130	7,923,403
1924.....	10,486,894	1,879,352	8,306,730	1930.....	7,705,488	1,170,500	5,688,630
1925.....	10,057,712	1,763,751	8,518,917	1931.....	5,794,096	656,663	3,000,953
1926.....	9,920,288	1,653,454	8,035,786				

In the following table the annual exports of machinery belting from Great Britain are shown by classes, quantity, and value, for 1920 through 1931. The volume is in pounds based on reported units of hundredweights, equal to 112 pounds. The weights shown are net weights, and the values free-on-board ship values; both quantities and values are based on exporters' declarations as in the case of United States exports. The statistics are for calendar year periods, and cover domestic exports only.

## EXPORTS OF BELTING FROM THE UNITED KINGDOM

Year	Leather belting		Woven hair or cotton		Other sorts	
	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>	
1920.....	3,429,104	\$5,000,734	8,029,168	\$7,422,527	5,015,584	\$5,078,839
1921.....	1,956,864	2,603,397	3,830,176	3,073,102	1,891,120	1,736,290
1922.....	1,889,776	2,297,648	4,927,552	3,347,579	2,372,496	1,970,285
1923.....	2,394,784	2,558,701	5,782,222	3,814,332	2,650,256	2,174,172
1924.....	2,312,912	2,486,291	5,514,768	3,775,639	2,659,216	2,026,011
1925.....	2,084,656	2,376,305	5,091,968	3,817,120	2,881,088	2,325,446
1926.....	1,788,060	2,059,342	5,120,640	3,775,505	3,011,568	2,200,938
1927.....	1,808,016	1,981,781	5,278,336	3,547,041	2,539,040	1,923,981
1928.....	1,631,840	2,007,974	5,349,344	3,606,429	3,164,896	2,259,241
1929.....	1,709,232	2,045,744	5,241,488	3,512,744	3,561,488	2,364,910
1930.....	1,287,664	1,563,928	3,344,096	2,212,155	3,073,728	1,912,546
1931.....	998,816	1,031,522	1,940,064	1,067,990	2,855,216	901,441

The following table, giving the percentage of total British belting exports supplied by each class, shows that something approaching a revolution in the trade has occurred in recent years. In the period from 1920 to 1924 a little over half the total exports consisted of hair and cotton belting with the balance divided more or less equally between leather belting and balata and rubber beltings. In 1925, balata belting was separately reported from rubber belting and since then exports of rubber belting have constantly supplied an increasing percentage of the total, actually increasing in quantity, even in 1931, to supply over 39 per cent of the total in that year. Balata belting has declined from 15 per cent of the total in 1925 to about 10 per cent in 1931. Leather belting in recent years supplied about one-sixth of the total. Hair and cotton belting continued to furnish over half the total until 1928, with the percentage of hair belting increasing and that of cotton declining; woven hair belting in 1931 supplied only a little over 20 per cent of the total against 30 per cent in 1928, and cotton belting in 1931 accounted for less than 13 per cent against more than 26 per cent in 1927. Rubber belting exports in 1931 were larger than the British exports of any two other classes, although as late as 1927 they constituted the smallest class of belting exported from United Kingdom.

## PERCENTAGE OF BRITISH EXPORTS OF BELTING SUPPLIED BY DIFFERENT CLASSES

Year	Leather	Cotton	Hair	Balata	Rubber
1921.....	25.5	49.9			24.6
1922.....	20.5	53.6			25.9
1923.....	22.1	53.4			24.5
1924.....	22.1	52.5			25.4
1925.....	20.7	50.6		15.6	13.1
1926.....	18.7	53.4		15.7	12.2
1927.....	18.8	26.2	28.6	13.7	12.7
1928.....	16.1	21.9	30.8	13.6	17.6
1929.....	16.3	20.4	29.4	12.8	21.1
1930.....	16.7	16.8	26.6	12.8	27.1
1931.....	17.2	12.9	20.6	10.1	39.2

The average value per pound of the various classes of belting for each of the years from 1921 through 1930 is shown in the following table in United States currency, conversion being at the annual aver-

age exchange rates. The value per pound of leather belting has been relatively stable; the price of hair belting continued fairly steady until 1931; balata and cotton belting prices declined gradually; and rubber belting prices have dropped most rapidly. In 1931, there was a very pronounced drop in the average value per pound of each class, owing partially to the decline in the value of sterling from \$4.86 in 1930 to \$4.57 in 1931, but the decline would still be pronounced even if exchange for 1931 were figured at par. Perhaps the comparison of per pound values is not truly indicative of the relative costs of belting of different materials that might be used on a particular drive, but the fact that rubber belting shows the greatest gain in recent years, and also has the lowest per pound value, must be regarded as significant.

## AVERAGE VALUE PER POUND FOR BRITISH EXPORTS OF BELTING

[United States currency]

Year	Leather	Cotton	Hair	Balata	Rubber
1921.....	\$1.33	\$0.80		\$0.87	
1922.....	1.20	.68		.83	
1923.....	1.07	.66		.82	
1924.....	1.08	.69		.76	
1925.....	1.14	.75		\$0.89	\$0.71
1926.....	1.15	.74		.91	.70
1927.....	1.10	\$0.58	\$0.76	.88	.63
1928.....	1.23	.61	.72	.86	.60
1929.....	1.20	.59	.73	.80	.56
1930.....	1.21	.57	.72	.81	.53
1931.....	1.03	.48	.59	.70	.40

It is worth noting that the bulk of the British trade was formerly in woven hair and cotton belting, which was the cheapest class until recently, according to the official export statistics. In this class of belting Germany is the chief trade competitor of Great Britain. In the volume of trade in this class, Great Britain far outranks any other country. In leather belting England has recently lost its leading position to France, and in rubber belting it has always ranked behind the United States. Under the description "other sorts of belting" balata belting formerly constituted the bulk of British exports, it being early developed to a greater extent than rubber belting in the British trade; in recent years rubber belting has furnished the predominant share of exports under this heading.

The higher cost of balata than of crude rubber results in a higher price for the finished balata belt. Few United States firms manufacture balata belts, while rubber belting has reached its greatest development on this side of the Atlantic. The overproduction of crude rubber, which has resulted in low crude rubber prices, is a factor in keeping rubber belting lower in price than balata. The British statistics show the general demand of the consumer for a low-priced article, and in satisfying this demand with high quality rubber belting United States manufacturers took the lead in the rubber belting trade and continue to hold it.

In 1920 the United Kingdom supplied 40.8 per cent of the world's leather belting exports. By 1925 this share had fallen to 27.1, and by 1930 to 20.8 per cent. British India continues to be the largest market for British leather belting exports, although it is a declining



one. In 1922 Bombay took 4,513 hundredweights of such belting, Madras 583, and Bengal 1,222; by 1930 Bombay took 2,974 hundredweights, Madras 439, and Bengal 1,796. China is the next largest consumer, taking 1,793 hundredweights in 1922 and 1,000 in 1930; Egypt comes next, then the United States, followed by the Union of South Africa. The following table shows British leather belting exports, by countries, in hundredweights and pounds sterling, for the years 1925-1931. British possessions were taking a much larger share (58.5 per cent) of the total exports in 1930 than in 1922 (52 per cent), but this is partly due to inclusion of the Irish Free State, formerly a part of the United Kingdom, among the British possessions.

UNITED KINGDOM EXPORTS OF LEATHER BELTING TO FOREIGN COUNTRIES  
DURING CALENDAR YEARS 1925-1931

QUANTITY

Country of destination	1925	1926	1927	1928	1929	1930	1931
	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>
Belgium.....	118						22
Denmark.....	136						31
Finland.....	200						20
France.....	198	176	123	148	121	116	65
Germany.....	202	94	398	174	172	89	135
Greece.....	184	145	85	53	70	90	27
Italy.....	224	310	242	211	185	101	122
Netherlands.....	461	391	599	139	56	46	41
Norway.....	402	203	197	160	175	96	24
Poland and Danzig.....	165	123	102	98	36	49	156
Portugal.....	62	95	76	140	41	60	21
Russia.....	676						
Spain.....	77	106	69	139	177	160	35
Sweden.....	247	267	293	241	207	194	175
United States.....	581	261	560	439	452	418	148
Mexico.....	334	234	92	114	154	82	29
Argentina.....	559	574	660	685	590	278	151
Brazil.....	737	556	745	592	581	228	98
Chile.....	264	274	155	114	111	196	52
Peru.....	41	102	44	66	29	37	33
China.....	1,229	1,388	801	1,074	1,121	1,000	819
Egypt.....	386	241	686	460	603	472	492
Other foreign countries.....	942	1,406	1,453	1,070	1,448	1,064	680
Total.....	8,425	6,946	7,380	6,157	6,329	4,776	3,376
Irish Free State.....	234	334	192	241	232	236	150
Canada.....	316	294	233	159	400	208	176
British India.....	7,329	5,957	6,279	6,417	6,712	5,302	4,498
British South Africa.....	625	305	714	601	410	300	223
Australia.....	350	278	346	185	237	72	22
New Zealand.....	334	291	139	146	193	102	45
Other British countries.....	1,000	1,060	860	664	748	501	426
Total to British countries.....	10,188	9,019	8,763	8,413	8,932	6,721	5,540
Grand total.....	18,613	15,965	16,143	14,570	15,261	11,497	8,916

VALUE

Belgium.....	£2,810						£688
Denmark.....	3,337						781
Finland.....	4,467						390
France.....	6,163	£5,152	£3,452	£4,288	£3,749	£3,161	1,812
Germany.....	4,865	2,542	8,731	4,006	3,328	2,839	2,371
Greece.....	5,629	3,970	2,380	1,600	1,999	2,322	621
Italy.....	6,057	7,684	5,278	5,775	5,608	2,955	2,960
Netherlands.....	9,266	8,111	12,224	3,142	2,116	1,529	1,102
Norway.....	9,188	4,538	4,283	3,434	2,738	2,204	598
Poland and Danzig.....	6,644	4,496	3,719	2,414	730	879	2,865
Portugal.....	1,727	2,491	2,032	4,348	1,347	2,147	786
Russia.....	24,900						
Spain.....	2,401	2,624	1,884	3,752	5,940	5,430	786
Sweden.....	5,634	6,148	6,632	7,133	4,778	4,616	3,881

UNITED KINGDOM EXPORTS OF LEATHER BELTING TO FOREIGN COUNTRIES  
DURING CALENDAR YEARS 1925-1931—Continued

VALUE—Continued

Country of destination	1925	1926	1927	1928	1929	1930	1931
United States.....	£13,045	£7,425	£9,981	£11,379	£10,888	£8,656	£3,647
Mexico.....	10,217	7,164	2,895	2,814	3,880	2,379	735
Argentina.....	15,647	15,204	16,457	19,150	16,407	7,788	3,068
Brazil.....	22,334	17,108	23,033	17,762	18,115	8,111	2,798
Chile.....	5,856	6,990	3,450	2,648	2,439	4,795	1,240
Peru.....	1,159	2,707	1,350	2,264	944	1,064	873
China.....	30,358	35,275	20,150	29,325	31,925	28,623	21,920
Egypt.....	8,139	5,056	12,848	8,694	11,531	8,874	7,218
Other foreign countries.....	23,828	37,508	35,711	31,625	36,480	26,816	15,062
Total to foreign countries.....	223,671	182,193	176,490	165,553	164,942	125,188	76,222
Irish Free State.....	8,133	7,503	6,019	7,434	8,101	6,696	4,287
Canada.....	6,785	6,675	4,912	4,498	7,540	5,382	4,820
British India.....	198,661	167,484	167,661	189,753	199,555	158,615	121,881
British South Africa.....	15,364	19,555	19,520	17,976	10,611	8,092	6,638
Australia.....	7,660	7,826	8,507	5,011	6,063	2,206	512
New Zealand.....	7,957	6,446	4,143	3,691	4,318	2,757	1,296
Other British countries.....	23,767	26,051	20,522	18,399	19,805	12,860	10,060
Total to British countries.....	268,327	241,540	231,284	246,762	255,993	196,608	149,494
Grand total.....	491,998	423,733	407,774	412,315	420,935	321,796	225,716

In 1920 the United Kingdom supplied 47.7 per cent of the world exports of rubber and balata belting. In 1925 this declined to 26.1 per cent and by 1930 to 24.6. Ten years ago France was the largest single market for British belting of this sort, taking 2,959 hundredweights. Brazil came next with 1,475, then Finland with 1,293, Denmark with 1,203, and Australia 1,000.

Beginning with 1925, British export statistics show balata belting separately from rubber belting. In 1929 the United Kingdom sent 11,997 hundredweights of balata belting abroad, valued at £232,178. South Africa was the largest single market, taking 1,112 hundredweights, followed by Australia with 775, Brazil taking 631, and Canada 612 hundredweights. During the same period 14,788 hundredweights of rubber and canvas belting was exported, worth £174,229. British South Africa took 4,812 hundredweights of this, British India 2,024, Sweden 1,202, and Norway 1,163. In 1930 the exports of balata belting dropped to 8,790 hundredweights, valued at £164,402. South Africa continued as the largest consumer, taking 808 hundredweights, British India increased its share to 777 hundredweights, the Netherlands required 568 hundredweights and the Irish Free State 522. In the rubber belting line, 13,928 hundredweights were exported valued at £159,331. South Africa again led with 4,540 hundredweights, British India took 1,506 hundredweights, Sweden 672, and the Netherlands 552. The following tables show British exports of balata and rubber belting by countries from 1925 through 1931.

## UNITED KINGDOM EXPORTS OF BALATA BELTING, BY COUNTRIES, DURING THE CALENDAR YEARS 1925-1931

## QUANTITY

Country of destination	1925	1926	1927	1928	1929	1930	1931
	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>
Belgium.....	714	531	501	342	218	125	142
Denmark.....	198	513	383	377	370	195	238
Finland.....	181	430	413	371	260	348	41
France.....	733	311	327	361	308	184	110
Germany.....	232	213	35	217	479	452	124
Italy.....	406	377	167	334	328	265	118
Netherlands.....	212	124	68	406	534	568	311
Spain.....	312	352	414	289	341	189	39
Sweden.....	326	146	114	161	256	140	37.6
Argentina.....	698	1,188	767	700	600	498	390
Brazil.....	908	724	667	666	631	187	89
Peru.....	169	212	211	125	97	62	44
China.....	371	244	257	84	54	96	86
Japan.....	405	389	269	235	228	21	32
Other foreign countries.....	1,477	1,309	1,623	1,998	2,148	1,538	743
Total to foreign countries.....	7,942	7,073	6,216	6,666	6,852	4,870	2,883
Canada.....	740	669	416	506	612	336	285
Irish Free State.....	376	443	509	493	570	522	434
British India.....	935	743	595	773	583	777	330
British South Africa.....	1,297	1,714	1,476	1,597	1,112	808	665
Australia.....	1,073	1,188	922	897	775	285	39
New Zealand.....	785	732	478	500	598	356	111
Other British Countries.....	844	858	1,121	894	895	836	463
Total to British countries.....	6,050	6,347	5,517	5,660	5,145	3,920	2,327
Total.....	13,992	13,420	11,733	12,326	11,997	8,790	5,210

## VALUE

Belgium.....	£15,026	£11,786	£10,031	£6,447	£4,210	£2,060	£2,317
Denmark.....	12,066	8,361	5,600	5,879	5,628	2,774	3,035
Finland.....	3,441	8,942	7,649	7,027	4,658	5,001	396
France.....	14,031	6,584	6,165	7,009	5,527	3,554	1,984
Germany.....	4,181	4,428	863	4,611	10,096	7,917	2,197
Italy.....	8,141	7,347	3,315	6,565	6,513	4,999	1,894
Netherlands.....	3,447	2,574	1,252	8,185	10,458	10,729	5,381
Spain.....	6,431	6,860	8,496	6,000	7,381	3,796	650
Sweden.....	5,860	2,969	1,939	2,542	3,894	2,089	4,866
Argentina.....	14,030	23,379	15,308	13,543	11,203	7,839	7,007
Brazil.....	17,091	13,743	12,176	11,493	10,189	3,341	1,443
Peru.....	3,656	5,011	4,292	2,483	1,906	1,312	771
China.....	6,438	3,985	4,112	1,406	1,091	2,080	1,203
Japan.....	7,769	7,963	5,039	4,159	4,107	424	487
Other foreign countries.....	30,803	27,853	32,182	39,518	40,432	27,479	11,289
Total to foreign countries.....	152,411	141,785	118,419	126,867	127,293	85,394	44,920
Canada.....	18,331	15,719	9,230	10,978	12,300	6,555	5,409
Irish Free State.....	10,095	11,188	13,230	11,978	14,286	12,533	10,680
British India.....	21,357	16,901	12,366	16,433	11,991	14,841	6,316
British South Africa.....	25,781	36,443	30,863	29,714	21,530	14,407	11,083
Australia.....	24,062	26,690	18,907	18,280	15,870	5,707	625
New Zealand.....	16,718	14,322	9,302	8,531	10,634	7,118	1,845
Other British countries.....	20,712	19,989	24,735	20,138	18,274	17,847	8,556
Total to British countries.....	137,056	141,252	118,633	116,052	104,885	79,008	44,514
Total.....	289,467	283,037	237,052	242,919	232,178	164,402	89,434

## UNITED KINGDOM EXPORTS OF RUBBER BELTING, BY COUNTRIES, DURING THE CALENDAR YEARS 1925-1931

## QUANTITY

Country of destination	1925	1926	1927	1928	1929	1930	1931
	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>
Austria.....			16	14.	21	6	70
Belgium.....	334	243	35	92	177	263	134
Bulgaria.....				6			
Channel Islands.....			2	62	4	6	28
Czechoslovakia.....			22	50	2	45	46
Denmark.....	223	145	299	386	299	342	345
Estonia.....			11		21	56	5
Finland.....	177	170	238	354	166	106	42
France.....	649	634	35	133	224	203	331
Germany.....	394	106	17	241	119	298	94
Greece.....			19	5	6	37	167
Hungary.....			13	17		1	6
Iceland.....					1	1	
Irish Free State.....	233	145	186	308	183	134	121
Italy.....	184	84	49	137	7	40	46
Latvia.....			12	10	12		1
Malta and Gozo Islands.....			1				
Netherlands.....	155	140	143	377	223	552	264
Norway.....	296	303	486	627	1,163	364	445
Poland and Danzig.....			55	95	76	124	40
Portugal.....			31	29	24	79	37
Rumania.....			232	87		14	10
Russia.....			15	38	79	57	
Spain.....	261	218	228	442	206	896	220
Sweden.....	559	503	787	1,330	1,202	672	887
Switzerland.....			11	98	7	23	17
Turkey.....			22		11	12	15
Yugoslavia.....			4		1		
Canada.....	80	33	51	51	20	226	96
Mexico.....			128	25	15		26
Newfoundland and Labrador.....			11	13			
United States.....	812	297	128	315	8	84	51
Costa Rica.....			22	25	28	28	2
Guatemala.....			2	3	2		
Nicaragua.....					15	2	27
Panama.....			7				2
Salvador.....			13	18	10		
Jamaica.....			1	17		1	3
Trinidad and Tobago.....			21	18		10	9
Other British West Indies.....			7	7	64	5	3
Cuba.....			3				
Netherland West Indies.....				8			
Argentina.....	893	1,406	928	1,415	867	550	3,514
Bolivia.....			23	21			
Brazil.....	204	59	87	341	273	34	66
British Guiana.....			14	3	3		
Chile.....	368	307	93	260	212	73	2,575
Colombia.....			6	7	21	11	5
Ecuador.....			4		1		
Paraguay.....				3	3	6	1
Peru.....	20	87	14	14	27	8	27
Surinam.....			7				
Uruguay.....			2	11	52	78	12
Venezuela.....			2	2	9	6	6
Aden.....				34	1		
Cyprus Island.....			29	9	29	109	8
Iraq.....			5	2			
Palestine.....			5	3		1	1
Persia.....			1		32		135
Syria.....			1				
British India.....	1,630	1,342	1,626	2,417	2,024	1,506	1,235
British Borneo.....			4				
British Malaya.....			60	130	232	30	351
Ceylon.....			50	63	4	9	14
China.....	82	21	7	4	3	464	86
French Indo-China.....			41	68	2		
Hong Kong.....			52	51	2	49	7
Japan and Chosen.....			5	24	10	107	4
Netherland India.....			135	215	168	72	50
French Indies.....							4
Philippine Islands.....			16	6			1
Portuguese India.....				6			17
Siam.....			22	27	45	59	18
Australia.....	212	215	157	196	241	8	18
Other British Oceania.....						143	3
New Zealand.....	601	476	585	438	365	461	450
Algeria.....			2			25	
Anglo-Egyptian Sudan.....			9	14	3	21	4

## UNITED KINGDOM EXPORTS OF RUBBER BELTING, BY COUNTRIES, DURING THE CALENDAR YEARS 1925-1931—Continued

## QUANTITY—Continued

Country of destination	1925	1926	1927	1928	1929	1930	1931
	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>
Belgian Congo.....			3	12	70	12	
British East Africa:							
Kenya and Uganda.....			51	162	109	45	70
Tanganyika and Nyasaland.....			10	13	21	6	12
Zanzibar and Pemba.....					8		
Mauritius and Seychelles.....			32	28	138	28	14
British South Africa.....	1,962	2,004	3,276	4,098	4,994	4,662	4,575
British West Africa:							
Gold Coast and Togoland.....			14	107	86	73	87
Nigeria and Cameroons.....			19	69	22	8	77
Other British West Africa.....				2			1
Canary Islands.....			2	1		1	
Egypt.....			13	23	22	18	58
French West Africa.....			13				
Madagascar.....					7		
Morocco.....							2
Mozambique.....			110	191	285	504	129
Italian Africa.....							1
Spanish Africa.....							2
Tunisia.....			32			54	3
Querto Rico.....				4	1		
Other foreign countries.....	1,024	1,017					
Other British countries.....	379	514					
Total.....	11,732	10,469	10,937	15,932	14,788	13,928	17,215

## VALUE

Austria.....			£347	£305	£277	£129	£945
Belgium.....	£4,833	£3,964	644	2,020	1,849	2,311	922
Bulgaria.....				114			
Channel Island.....			74	910	63	127	230
Czechoslovakia.....			549	1,182	39	613	739
Denmark.....	3,339	2,680	5,061	5,651	4,086	4,408	3,735
Estonia.....			169		194	527	61
Finland.....	2,709	2,950	3,562	5,283	2,179	1,237	398
France.....	8,268	9,968	647	2,193	3,148	3,131	3,859
Germany.....	6,956	2,077	447	3,845	2,268	4,474	1,222
Greece.....			231	86	47	530	2,049
Hungary.....			193	285		48	106
Iceland.....			20	6	24	17	7
Irish Free State.....	4,432	3,476	4,142	5,464	2,471	1,652	1,613
Italy.....	4,087	1,555	829	2,930	105	466	815
Latvia.....			103	170	204		18
Malta and Gozo Islands.....			40	16	16		
Netherlands.....	2,352	1,871	1,792	6,632	2,173	5,758	2,612
Norway.....	4,279	4,312	5,512	7,585	11,667	3,175	3,144
Poland and Danzig.....			1,155	1,439	1,235	1,757	523
Portugal.....			403	373	316	1,154	324
Rumania.....			2,977	1,133		154	145
Russia.....			194	507	775	513	10
Spain.....	4,487	3,832	3,600	4,547	2,086	8,108	1,885
Sweden.....	14,009	7,310	11,825	17,762	14,264	7,740	8,429
Switzerland.....			168	1,464	155	324	304
Turkey.....			341		143	142	165
Yugoslavia.....			79	1		18	13
Canada.....	1,374	705	931	712	198	1,864	1,554
Mexico.....			2,168	404	187		313
Newfoundland and Labrador.....			125	359		3	
United States.....	12,506	4,833	2,215	5,638	203	1,855	746
Costa Rica.....			345	391	392	388	24
Guatemala.....			20	54	27		7
Nicaragua.....					179	27	282
Panama.....			106				17
Salvador.....			274	286	197		2
Jamaica.....			37	266		6	29
Trinidad and Tobago.....			369	270		148	80
Other British West Indies.....			70	131	764	64	48
Cuba.....			49				
Netherlands West Indies.....				67			
Argentina.....	12,519	21,670	12,527	16,815	10,915	6,721	31,638
Bolivia.....			282	215			32
Brazil.....	4,632	1,284	2,082	4,787	3,462	712	767
British Guiana.....			462	42	62	5	4
Chile.....	6,069	4,841	1,250	3,175	2,515	775	14,891

## UNITED KINGDOM EXPORTS OF RUBBER BELTING, BY COUNTRIES, DURING THE CALENDAR YEARS 1925-1931—Continued

VALUE—Continued

Country of destination	1925	1926	1927	1928	1929	1930	1931
Colombia.....			£52	£150	£265	£211	£73
Ecuador.....			86		19		3
Falkland Islands.....							2
Paraguay.....				49	48	86	27
Peru.....	£374	£2,115	236	253	405	150	391
Surinam.....			115				
Uruguay.....			69	212	855	1,475	229
Venezuela.....			38	76	124	122	100
Aden.....				684	8		9
Cyprus Island.....			370	155	348	932	127
Iraq.....			120	37			
Palestine.....			122	105		16	17
Persia.....			13		215		814
Syria.....			10				
British India.....	30,749	25,128	27,881	34,030	27,714	22,171	16,107
British Borneo.....			112				
British Malaya.....			1,188	2,479	2,967	422	3,157
Ceylon.....			872	1,163	39	145	176
China.....	1,422	313	140	69	39	5,334	782
French Indo-China.....			430	1,109	21		
Hong Kong.....			488	505	56	576	99
Japan and Chosen.....			234	550	290	921	119
Netherland India.....			2,544	3,181	2,270	1,457	684
Philippine Islands.....			243	137			93
Portuguese India.....				144			
Siam.....			365	596	599	890	139
Australia.....	3,260	4,079	2,836	2,805	3,064	148	277
Fiji Islands.....			8				
Other British Oceania.....						1,075	33
New Zealand.....	11,493	9,426	8,207	6,963	4,973	5,857	5,271
Algeria.....			38	2		214	5
Anglo-Egyptian Sudan.....			223	493	53	301	70
Belgian Congo.....			93	142	810	184	
British East Africa:							
Kenya and Uganda.....			1,028	2,977	1,603	707	942
Tanganyika and Nyasaland.....			232	279	385	75	159
Zanzibar and Pemba.....					113		6
Mauritius and Seychelles.....			529	566	1,827	366	234
British South Africa.....	24,533	26,059	38,572	49,403	52,535	46,807	36,972
British West Africa:							
Gold Coast and Togoland.....			219	1,751	882	1,099	768
Nigeria and Cameroons.....			492	1,470	194	100	540
Other British West Africa.....			2	39			17
Canary Islands.....			56	33		23	6
Egypt.....			143	424	268	235	516
French West Africa.....			116				
Madagascar.....					149		
Morocco.....							14
Mozambique.....			1,548	2,281	2,169	5,090	1,159
Portuguese West Africa.....			9	11	15		
Italian Africa.....							17
Spanish Africa.....				16		2	33
Tunisia.....			334			447	29
Puerto Rico.....				137	14		
Other foreign countries.....	15,850	15,118					
Other British countries.....	7,460	10,265					
Total.....	191,992	169,831	158,829	220,991	174,229	159,331	154,889

The United Kingdom continues to dominate the world's export trade in textile belting. In 1923 it furnished 67.7 per cent of the total; in 1925, 61.3; and in 1930, 62.3 per cent. Through 1923 British statistics for cotton belting were combined with those of woven hair. The two tables following show British exports of hair and cotton belting from 1927 to 1931, in the detail published in the official annual trade reports. The hundredweight (cwt.) is equivalent to 112 pounds.

In 1922 India was the largest market for British textile belting, Bombay alone taking 4,777 hundredweights. Argentina was second,

followed by the United States, Finland, France, Russia, China, and Australia in that order. By 1930 India was still the largest textile market; but in cotton belting Finland was second, the United States third, Argentina fourth, and Ceylon fifth. For woven-hair belting in 1930, Egypt was second, British Malaya third, Java fourth, and Canada fifth.

UNITED KINGDOM EXPORTS OF WOVEN-HAIR BELTING TO FOREIGN COUNTRIES  
DURING THE CALENDAR YEARS 1927-1931

Country of destination	Quantity					Value				
	1927	1928	1929	1930	1931	1927	1928	1929	1930	1931
	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>					
Finland.....	326	247	204	71	62	£5,997	£4,971	£3,982	£1,279	£1,007
France.....	471	312	221	203	153	7,216	5,680	4,734	4,321	2,541
Norway.....	372	313	388	337	185	6,171	5,262	6,584	4,849	2,815
Sweden.....	501	445	730	404	286	8,394	7,189	11,553	5,873	3,969
Java.....	970	1,208	1,287	906	368	12,871	17,095	18,134	12,942	4,841
Other Netherland India.....	422	1,616	599	385	6	4,463	14,967	5,607	4,043	83
Argentina.....	479	409	317	158	126	9,232	7,890	6,405	2,807	2,076
Siam.....	1,342	1,013	542	567	398	18,818	14,739	7,999	7,586	5,150
Egypt.....	690	1,565	1,872	1,242	441	12,534	29,444	34,203	22,053	6,069
Other foreign countries.....	4,369	4,690	5,507	3,498	1,699	76,921	82,084	90,127	57,007	26,155
Total to foreign countries.....	9,942	11,818	11,667	7,771	3,724	162,617	189,311	189,328	122,760	54,706
Canada.....	709	558	664	597	385	15,260	10,368	12,611	11,383	7,419
British India.....	9,390	10,414	9,814	6,837	4,552	163,446	169,131	162,461	114,278	63,310
British South Africa.....	362	166	222	231	205	7,771	3,835	4,573	5,037	3,434
British Malaya.....	2,201	2,287	2,135	931	310	39,498	39,166	38,506	16,758	4,939
Ceylon.....	587	648	709	526	394	12,636	12,494	13,993	10,521	6,728
Australia.....	606	847	827	218	71	12,650	16,766	15,240	4,079	1,186
Other British countries.....	793	1,193	1,579	1,215	1,004	15,365	19,621	25,479	17,621	12,913
Total to British countries.....	14,648	16,113	15,950	10,555	6,921	266,626	271,380	272,863	179,677	99,929
Total.....	24,590	27,931	27,617	18,326	10,645	429,243	460,691	462,191	302,437	154,635

UNITED KINGDOM EXPORTS OF COTTON BELTING TO FOREIGN COUNTRIES DURING  
THE CALENDAR YEARS 1927-1931

Country of destination	Quantity					Value				
	1927	1928	1929	1930	1931	1927	1928	1929	1930	1931
	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>	<i>Cwt.</i>					
Finland.....	2,835	1,915	2,294	1,240	526	£21,541	£17,201	£20,993	£11,069	£3,360
Netherland India.....	690	255	330	268	71	8,872	4,718	5,801	5,585	1,184
United States.....	2,677	2,120	2,330	861	538	38,640	32,075	35,158	12,276	6,679
Argentina.....	1,986	2,577	1,486	743	113	26,224	38,847	20,580	9,905	1,598
Other foreign countries.....	3,806	3,941	4,098	2,848	1,597	57,883	60,666	60,810	40,921	20,857
Total to foreign countries.....	11,894	10,808	10,538	5,960	2,845	153,160	153,507	143,342	79,756	33,678
Canada.....	413	539	337	272	242	6,352	8,687	5,206	3,754	2,696
British India.....	7,987	6,674	6,002	3,791	2,695	104,326	87,161	75,908	46,876	29,924
Ceylon.....	565	397	564	398	145	9,735	6,915	9,614	6,257	2,286
Other British countries.....	1,679	1,413	1,741	1,111	750	27,028	23,579	26,528	16,086	10,477
Total to British countries.....	10,644	9,023	8,644	5,572	3,832	147,441	126,342	117,255	72,983	45,383
Total.....	22,538	19,831	19,182	11,532	6,677	300,601	279,849	260,597	152,739	79,061

The following table shows British exports of "other sorts" of belting, a category brought out only in the last two years. It consists of belting other than leather, cotton, woven hair, balata, rubber, and canvas.

## BRITISH EXPORTS OF "OTHER SORTS" OF BELTING

[Other than leather, cotton, woven hair, balata, and rubber and canvas]

Country of destination	1930		1931	
	Quantity	Value	Quantity	Value
Soviet Russia			<i>Cwt.</i> 153	£2,000
Finland	13	£181	9	80
Estonia			12	152
Sweden	201	2,666	216	2,154
Norway	91	1,038	58	550
Ireland	1	5		15
Denmark	76	1,024	23	315
Poland and Danzig	30	506	12	185
Germany	202	2,448	36	384
Netherlands	56	788	87	787
Sumatra	19	524	7	167
Java	7	199		
Dutch Borneo	128	1,068		
Belgium	23	484	28	370
Belgian Congo			7	111
France	215	3,982	102	1,764
Algeria	3	60		15
Syria	1	14		
French Indo-China	16	233	3	27
Switzerland	4	68	6	142
Portugal	5	76	12	177
Portuguese East Africa	6	112	7	142
Portuguese West Africa			8	96
Portuguese India	45	846		
Spain	59	721	50	679
Canary Islands				2
Italy	50	1,104	50	941
Austria	3	74	12	172
Hungary		2	2	61
Czechoslovakia	24	360	3	56
Greece	5	88	4	54
Rumania	11	210	49	850
Turkey				1
Egypt	22	248	2	22
Morocco		15		
Arabia	1	7		
Siam	15	179	17	278
Iraq			1	23
China	28	379	83	860
Japan	10	250	7	165
United States	439	7,380	355	4,091
Mexico	6	141	43	491
Salvador			1	17
Colombia	1	15		
Panama	2	27		
Venezuela	2	33	44	503
Peru		5	8	165
Chile	64	768	1	17
Brazil	32	708	8	169
Uruguay	4	98	8	146
Argentina	433	5,392	106	2,161
Paraguay	7	126		
Irish Free State	293	4,458	132	2,534
Channel Islands	62	1,010	35	644
Cyprus	3	51		
Palestine	8	225	3	73
Gold Coast	33	476	8	137
Nigeria	1	30	1	38
Union of South Africa	610	6,276	471	4,182
South West Africa			2	18
Northern Rhodesia	7	87	1	31
Southern Rhodesia			55	380
Switzerland	631	6,587		
Tanganyika	10	224	3	68
Zanzibar		8		
Kenya	17	409	29	506
Urganda Protectorate	2	33		
Nyasaland	1	19		
Sudan	6	128		12
Mauritius	12	206		
India:				
Bombay	330	5,566	218	3,406
Madras	114	2,046	31	630
Bengal	408	7,067	124	2,208
Burma	53	1,149	61	1,260
Straits Settlements	3	53	26	568
Malay States	2	50	36	674



## BRITISH EXPORTS OF "OTHER SORTS" OF BELTING—Continued

[Other than leather, cotton, woven hair, and rubber and canvas]

Country of destination	1930		1931	
	Quantity	Value	Quantity	Value
	<i>Cwt.</i>		<i>Cwt.</i>	
Ceylon.....	14	£285	30	£655
Hong Kong.....	124	1,166	106	921
Australia.....	30	329	3	87
New Zealand.....	76	1,138	29	331
Canada.....	97	1,705	11	252
Bermuda.....	2	46		
Jamaica.....	21	303		
Trinidad.....	7	140	7	152
British Guiana.....	1	36	4	83
Falkland Islands.....			2	41
Total.....	4,726	69,795	3,068	42,363

## GERMANY

The German belting industry is more like the British than that of the United States, in that it is common for important manufacturers to produce several classes of belting rather than to specialize on a single class. The total number of German manufacturers of any class of belting can not be stated. Among companies advertising in trade periodicals, 1 made nearly all classes of belting, including rubber, balata, leather, and hair; 1 made leather, hair, and cotton; 1 leather and balata; 6 made both hair and cotton; 6 made balata belting only; 4 made rubber only; 7 made leather only; 1 specialized in hair; and 1 confined itself to cotton belting. Similarly to the British industry, a large number of the manufacturers produce balata and rubber belting, and a large percentage produce woven hair belting.

The industry produces belting of all types for transmission, conveyor, and elevator service. In 1912 and 1913 Germany held second place among nations competing in the international trade in belting. Pre-war German-made belting had an excellent reputation for quality all over the world. Its export trade ceased utterly with the outbreak of the war, and after its close in 1918 German manufacturers were for some time occupied with replenishing supplies of raw materials, supplying the accumulated domestic needs, installing new equipment in their factories, and renewing contacts with foreign merchants. In 1920 German-made belting reappeared in export trade but the volume of exports was very small that year. During 1921, 1922, and the first half of 1923 there was a steady and rapid increase in the trade, but with the establishment of a stable currency in Germany export trade became less profitable, and increasingly difficult to meet price competition. The 1924 exports were lower than those of the year before, dropping to 3,079,340 pounds, but from then on yearly increases were quite regular until exports of 3,687,512 pounds were reached in 1929. This is about half the pre-war figure, but 1930 and 1931 registered successive declines from this level. The following statement shows total German exports of belting by weight for 1912 and 1913, and 1920 through 1931.

## TOTAL GERMAN EXPORTS OF BELTING (INCLUDES WOVEN HAIR AND COTTON, LEATHER, AND BALATA AND RUBBER BELTING)

	Pounds		Pounds		Pounds
1912	7,268,838	1923	3,409,120	1928	3,373,882
1913	7,250,718	1924	3,079,340	1929	3,687,512
1920	624,800	1925	3,275,140	1930	2,942,340
1921	1,556,500	1926	3,320,020	1931	1,953,011
1922	3,020,600	1927	3,462,925		

Three classes of belting are reported in German official trade returns: Woven hair and cotton belting, leather belting, and balata and rubber belting. In the table following, the officially reported statistics of belting are shown for 1912, 1919, and 1922 to 1931, inclusive. The figure separated for leather belting in 1920 is likewise official; leather belting for 1921 is an estimated figure based on official statistics for the last eight months of the year. Separate statistics for woven hair and cotton belting and rubber and balata belting were not reported in 1920 or 1921, these products being included under general classifications; the figures for exports of the classes are, therefore, estimates. The values are shown only for pre-war years, and since 1923; for other years available value statistics are meaningless. The statistics are officially reported by net weight in units of metric quintals; the pound is used in this table.

## ANNUAL EXPORTS OF BELTING FROM GERMANY

Year	Woven hair and cotton		Leather		Balata and rubber	
	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Pounds</i>		<i>Pounds</i>		<i>Pounds</i>	
1912	3,308,420	\$1,116,960	1,989,771	\$1,521,360	1,910,647	\$887,280
1913	3,559,460	1,203,600	2,040,022	1,688,160	1,651,236	740,880
1920	1,440,000		74,800		1,110,000	
1921	1,990,000		1,236,500		1,330,000	
1922	1,831,940		546,260		642,400	
1923	1,887,600		671,880		849,640	
1924	1,949,420	865,844	603,460	473,620	526,460	308,210
1925	2,067,120	1,051,960	506,660	512,414	701,360	453,866
1926	2,045,560	1,007,930	546,920	525,266	727,540	499,562
1927	1,980,735	942,956	508,463	506,226	973,727	617,610
1928	1,669,750	827,526	673,542	722,806	1,030,590	620,466
1929	1,761,657	863,464	720,928	758,506	1,204,927	731,374
1930	1,244,158	577,388	468,570	453,866	1,229,612	661,402
1931	939,123	381,038	341,841	284,173	671,998	332,010

<sup>1</sup> Estimated.

Before the World War, hair and cotton belting made up nearly half of the German exports, 49.1 per cent in 1913; leather amounted to a little more than a quarter, or 28.1 per cent, and rubber and balata 22.8 per cent. Hair and cotton increased proportionally until in 1924 and 1925 it was over 63 per cent of German belting exports. By 1931 it had fallen away to 34.5 per cent, leather belting had dropped to 17.5, while rubber and balata had become the most important class of German belting exports, amounting to 48 per cent of the total. The accompanying table shows the percentages of German belting exports supplied by the three classes from 1922 to 1931; from Germany, as from the United States and the United Kingdom, rubber belting

exports have gained in importance at the expense of other classes. Leather belting exports accounted for about one-sixth of total German belting exports in 1930 and 1931, the same as in the case of exports from the United Kingdom. Evidently the decline in British exports of hair and cotton belting was not offset by increased German exports of those classes; it is certain that rubber belting is, therefore, replacing other classes pretty generally in international trade.

PERCENTAGE OF GERMAN BELTING EXPORTS SUPPLIED BY THE THREE CLASSES FROM 1922 TO 1931

Year	Rubber and balata	Leather	Hair and cotton	Year	Rubber and balata	Leather	Hair and cotton
1913.....	22.8	28.1	49.1	1927.....	28.1	14.7	57.2
1922.....	21.3	18.1	60.6	1928.....	30.5	19.9	49.5
1923.....	25.1	19.6	55.3	1929.....	32.7	19.5	47.8
1924.....	17.1	19.6	63.3	1930.....	41.7	15.9	42.3
1925.....	21.4	15.5	63.1	1931.....	48.0	17.5	34.5
1926.....	21.9	16.5	61.6				

The average value per pound for German exports of all classes of belting, except woven hair and cotton, is higher than before the war. Leather belting has increased slightly in price since 1912, balata and rubber has increased noticeably, while woven hair and cotton has dropped below the pre-war level. The following table shows the average values per pound for 1912, 1913, and 1924 to 1931.

AVERAGE VALUE, PER POUND, FOR GERMAN EXPORTS OF DIFFERENT CLASSES OF BELTING

Year	Rubber and balata	Leather	Woven hair and cotton	Year	Rubber and balata	Leather	Woven hair and cotton
1912.....	\$0.33	\$0.764	\$0.464	1927.....	\$0.634	\$0.996	\$0.476
1913.....	.34	.827	.445	1928.....	.602	1.073	.495
1924.....	.585	.784	.444	1929.....	.607	1.052	.590
1925.....	.647	.936	.508	1930.....	.538	.969	.464
1926.....	.686	.960	.492	1931.....	.494	.832	.406

In 1924 British India was the largest market for German cotton and hair belting, Sweden second, and Rumania third. During 1931 the British East Indies was in first place, Egypt second, and Sweden third. The following table shows conditions in this trade by countries from 1925 to 1931.

## GERMAN EXPORTS OF COTTON AND HAIR BELTING, BY COUNTRIES

Country of destination	1925		1926		1927		1928	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Kilos</i>	<i>Marks</i>	<i>Kilos</i>	<i>Marks</i>	<i>Kilos</i>	<i>Marks</i>	<i>Kilos</i>	<i>Marks</i>
Austria.....	24,200	140,000	17,900	107,000	24,200	128,000	23,800	140,000
Belgium and Luxembourg.....	13,400	59,000	11,100	44,000	17,600	68,000	21,100	92,000
Bulgaria.....					5,300	21,000	14,700	55,000
Czechoslovakia.....	9,500	50,000	9,500	50,000	15,900	83,000	15,900	88,000
Denmark.....	6,700	31,000	8,200	38,000				
Finland.....	4,100	19,000	4,400	29,000	5,300	31,000	4,900	24,000
France.....	2,800	15,000	5,600	33,000	7,800	40,000	9,200	49,000
Greece.....	24,300	110,000	12,500	62,000	24,600	102,000	30,900	127,000
Hungary.....	11,100	59,000	7,800	42,000	11,000	55,000	8,600	43,000
Italy.....	28,000	154,000	20,700	108,000	10,400	58,000	9,700	53,000
Latvia.....	3,400	18,000	5,900	31,000	4,400	18,000	4,600	23,000
Lithuania.....	2,300	15,000	4,500	20,000	8,800	42,000	7,500	39,000
Netherlands.....	21,200	101,000	26,500	121,000	27,100	125,000	18,500	81,000
East Poland.....	31,800	169,000	42,700	225,000				
Poland and Danzig.....	11,400	61,000	9,900	45,000				
Polish Upper Silesia.....	13,700	107,000	16,300	123,000	150,000	767,000	81,000	439,000
West Poland.....	9,300	50,000	7,000	36,000				
Portugal.....	3,700	21,000	6,800	34,000				
Rumania.....	40,600	196,000	5,700	28,000	52,200	243,000	26,500	135,000
Spain.....	18,500	85,000	8,900	43,000				
Sweden.....	67,300	355,000	68,700	336,000	76,100	331,000	48,600	229,000
Switzerland.....	6,500	33,000	4,800	22,000	3,600	21,000	5,300	27,000
Turkey.....	10,900	46,000	4,600	23,000	5,200	21,000	10,800	42,000
United Kingdom.....	18,000	89,000	7,900	40,000	5,600	27,000	7,800	39,000
Yugoslavia.....	8,200	59,000	7,400	34,000	5,400	26,000	15,600	78,000
Mexico.....	10,300	50,000	7,600	32,000	6,800	34,000	5,400	23,000
Argentina.....	45,200	231,000	12,200	60,000	15,700	69,000	47,300	207,000
Brazil.....	15,500	76,000	14,100	63,000	8,600	39,000	10,400	55,000
Chile.....	35,900	159,000	28,600	114,000	34,300	138,000	25,300	99,000
Uruguay.....					6,500	28,000	4,800	22,000
British East Indies.....					78,700	311,000		
British India.....	226,300	844,000	214,200	773,000	163,800	612,000	117,000	433,000
British Malaya.....	900	4,000	7,500	42,000				
China.....	20,700	84,000	44,300	166,000	12,700	45,000	5,400	25,000
Netherland East Indies.....	57,700	255,000	77,100	353,000			42,900	178,000
Siam.....	10,800	49,000	10,700	48,000	19,700	85,000	24,200	117,000
Other Asia.....					4,200	19,000	12,000	52,000
Egypt.....	73,000	362,000	101,400	493,000	43,800	188,000	60,000	271,000
All others.....	52,000	284,000	86,800	417,000	40,000	187,000	37,900	192,000
Total.....	939,600	4,420,000	929,800	4,235,000	895,700	3,962,000	757,600	3,477,000

Country of destination	1929		1930		1931	
	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Kilos</i>	<i>Marks</i>	<i>Kilos</i>	<i>Marks</i>	<i>Kilos</i>	<i>Marks</i>
Austria.....	20,300	118,000	13,600	64,000	11,300	51,000
Belgium and Luxembourg.....	14,400	58,000	10,000	44,000	11,400	39,000
Bulgaria.....	12,600	56,000				
Czechoslovakia.....	14,800	85,000	8,500	46,000	6,500	30,000
Denmark.....	5,700	24,000				
Finland.....					3,100	15,000
France.....	24,100	92,000	17,800	82,000	3,200	13,000
Saar.....	8,700	48,000	7,200	34,000	5,100	18,000
Greece.....	31,000	124,000	10,700	38,000	14,600	47,000
Hungary.....	8,600	42,000	7,100	36,000	7,600	30,000
Italy.....	24,000	96,000	1,100	97,000	6,300	30,000
Latvia.....	5,900	27,000	5,400	23,000		
Lithuania.....	10,100	49,000	9,700	45,000	9,900	33,000
Netherlands.....	36,400	163,000	24,600	101,000	22,200	78,000
Norway.....	2,400	25,000	4,100	29,000		
East Poland.....						
Poland and Danzig.....						
Polish Upper Silesia.....	55,000	307,000	20,000	114,000	9,500	42,000
West Poland.....						
Portugal.....	5,400	24,000	3,600	19,000		
Rumania.....	23,400	129,000	8,500	47,000		
Sweden.....	32,400	166,000	28,100	133,000	28,900	111,000
Switzerland.....	7,100	37,000	3,100	19,000	2,600	13,000
Turkey.....	8,100	35,000	2,900	13,000		
United Kingdom.....	7,200	39,000	8,000	39,000		
Yugoslavia.....	12,900	59,000	9,100	43,000	6,200	23,000
Mexico.....	6,900	35,000	4,100	20,000		
Argentina.....	29,800	149,000	11,700	55,000	8,800	34,000
Brazil.....	15,200	73,000	5,100	21,000	4,400	13,000

## GERMAN EXPORTS OF COTTON AND HAIR BELTING, BY COUNTRIES—Continued

Country of destination	1929		1930		1931	
	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Marks	Kilos	Marks	Kilos	Marks
Chile.....	32,000	127,000	29,500	99,000	.....	.....
Uruguay.....	10,400	46,000	.....	.....	.....	.....
British East Indies.....	173,400	654,000	.....	.....	30,200	120,000
British India.....	.....	.....	126,400	468,000	124,500	421,000
China.....	20,000	75,000	12,500	46,000	10,100	36,000
Netherland East Indies.....	37,800	183,000	54,900	226,000	.....	.....
Mandate of German West Africa.....	.....	.....	4,300	24,000	.....	.....
Siam.....	22,900	109,000	11,400	56,000	7,800	28,000
Other Asia.....	17,100	76,000	11,500	46,000	11,900	44,000
Egypt.....	37,700	166,000	57,600	238,000	.....	.....
All others.....	27,500	122,000	32,400	61,000	80,000	342,000
Total.....	799,300	3,628,000	564,500	2,426,000	426,100	1,601,000

Prior to 1925 German statistics covering rubber-beltting exports are not in detail, and do not give any information regarding the countries of destination. In 1930 Czechoslovakia was the largest consumer of this German product, followed by France and Sweden. For 1931 the Netherlands had moved into first place, followed by Sweden, Switzerland, and Czechoslovakia. The following table shows German exports of rubber beltting by countries; its share of the world trade in rubber and balata beltting was 1.4 per cent in 1920, 6.5 per cent in 1925, and 9.9 per cent in 1930, showing a steady rate of growth.

## GERMAN EXPORTS OF RUBBER AND BALATA BELTING, BY COUNTRIES

Country of destination	1925		1926		1927		1928	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Marks	Kilos	Marks	Kilos	Marks	Kilos	Marks
Denmark.....	17,500	91,000	30,500	145,000	41,800	199,000	47,300	204,000
Estonia.....	4,800	27,000	17,300	74,000	8,100	49,000	8,500	55,000
Finland.....	1,300	8,000	1,500	9,000	4,000	4,000	3,400	21,000
United Kingdom.....	51,200	253,000	41,600	218,000	41,000	187,000	27,400	150,000
Italy.....	13,200	74,000	12,200	77,000	16,800	96,000	16,900	107,000
Latvia.....	7,800	46,000	8,600	54,000	10,400	60,000	10,700	56,000
Netherlands.....	13,600	79,000	13,800	87,000	18,400	93,000	19,700	108,000
Austria.....	14,100	98,000	15,400	115,000	15,500	103,000	20,200	143,000
Poland and Danzig.....	30,600	196,000	28,600	228,000	57,300	361,000	53,900	345,000
Rumania.....	6,200	35,000	5,400	42,000	7,000	58,000	15,100	104,000
Union of Socialist Soviet Republics.....	4,200	29,000	.....	.....	6,000	21,000	43,600	174,000
Sweden.....	32,800	172,000	37,600	231,000	38,300	225,000	28,700	171,000
Switzerland.....	8,000	48,000	12,400	69,000	12,800	62,000	10,800	63,000
Czechoslovakia.....	10,100	70,000	12,300	86,000	28,400	149,000	32,900	169,000
Hungary.....	600	4,000	1,400	11,000	3,300	23,000	5,500	39,000
Mandate of German South West Africa.....	4,200	32,000	5,700	39,000	6,100	44,000	.....	.....
British India.....	1,400	10,000	6,600	43,000	.....	.....	6,300	38,000
Turkey.....	1,200	7,000	1,900	14,000	4,000	20,000	.....	.....
Argentina.....	6,500	48,000	3,800	22,000	16,300	108,000	13,600	78,000
Brazil.....	13,800	79,000	11,400	79,000	21,800	138,000	12,600	75,000
Chile.....	2,800	16,000	4,200	26,000	6,800	34,000	5,100	28,000
Bolivia.....	.....	.....	4,700	32,000	2,600	16,000	4,600	30,000
Colombia.....	1,400	8,000	2,200	13,000	4,000	18,000	.....	.....
Guatemala.....	5,200	32,000	5,000	28,000	5,400	28,000	4,100	24,000
Mexico.....	7,400	57,000	8,000	61,000	6,300	39,000	4,200	33,000
United States.....	17,600	124,000	18,100	118,000	21,300	137,000	.....	.....
Belgium and Luxembourg.....	.....	100	1,000	2,500	13,000	6,200	31,000	.....
Bulgaria.....	.....	2,800	17,000	3,400	17,000	3,900	22,000	.....
France.....	.....	400	3,000	400	3,000	20,600	74,000	.....
Yugoslavia.....	.....	1,900	13,000	2,400	16,000	4,000	25,000	.....
Lithuania.....	.....	2,400	16,000	2,700	17,000	5,100	32,000	.....
China.....	.....	300	3,000	3,100	16,000	3,500	20,000	.....
All other.....	41,700	250,000	17,800	158,000	17,000	198,000	32,200	188,000
Total.....	318,800	1,907,000	330,700	2,099,000	441,800	2,595,000	467,600	2,607,000

## GERMAN EXPORTS OF RUBBER AND BALATA BELTING, BY COUNTRIES—Contd.

Country of destination	1929		1930		1931	
	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Marks	Kilos	Marks	Kilos	Marks
Denmark.....	38,800	161,000	33,100	128,000	17,300	55,000
Estonia.....	8,200	50,000	7,500	35,000		
United Kingdom.....	35,500	181,000			4,600	22,000
Italy.....	15,300	107,000	21,700	123,000	16,500	76,000
Latvia.....	13,400	74,000	9,500	48,000	7,400	35,000
Netherlands.....	27,900	156,000	46,500	231,000	28,100	119,000
Norway.....	4,700	26,000	6,000	31,000		
Austria.....	21,300	141,000	18,500	117,000	12,700	56,000
Poland and Danzig.....	46,200	229,000	25,500	160,000	11,200	65,000
Portugal.....	3,500	20,000	2,700	14,000		
Rumania.....	10,700	55,000	27,200	123,000	4,600	24,000
Union of Socialist Soviet Republics.....	24,600	126,000	2,800	11,000	11,500	33,000
Sweden.....	30,100	177,000	38,400	198,000	26,800	115,000
Switzerland.....	15,800	97,000	16,400	92,000	22,000	98,000
Spain.....	5,600	34,000	5,300	30,000		
Czechoslovakia.....	53,600	286,000	66,100	290,000	20,500	99,000
Hungary.....	11,000	71,000	11,600	71,000	9,800	46,000
Mandate of German South West Africa.....	5,300	35,000	3,200	22,000		
British India.....	19,600	103,000	12,100	59,000	6,900	32,000
Egypt.....	3,400	23,000	3,500	21,000	2,700	15,000
Netherland India.....	3,000	21,000				
Argentina.....	18,400	107,000	31,900	131,000	6,400	32,000
Brazil.....	21,200	122,000	8,300	44,000	4,500	25,000
Chile.....	16,600	100,000	10,500	55,000	2,800	13,000
Bolivia.....	3,400	20,000				
Guatemala.....	5,800	33,000				
Uruguay.....	5,200	28,000				
Mexico.....	5,000	25,000	3,000	15,000	3,900	22,000
Belgium and Luxembourg.....	3,600	20,000	9,300	49,000	4,300	22,000
Bulgaria.....	4,200	24,000	1,500	11,000		
France.....	10,700	52,000	45,900	199,000	15,100	65,000
Yugoslavia.....			7,200	42,000		
Lithuania.....	8,400	45,000	13,500	63,000	10,800	51,000
China.....			5,400	24,000	10,400	36,000
Other Asia.....			1,900	12,000		
Saar.....	12,400	66,000	16,700	82,000	6,800	29,000
Greece.....	4,300	24,000			4,000	29,000
All other.....	30,000	134,000	45,200	248,000	33,000	181,000
Total.....	546,700	3,073,000	557,900	2,779,000	304,900	1,395,000

In 1924 Germany sent Sweden 67,700 kilos of leather belting, China 21,800, Rumania 20,900, and Bulgaria 19,800. By 1931 China had moved into the position of largest consumer, Italy was second, followed by Turkey and the British East Indies. The table following shows the German exports of leather belting, by countries, in 1924, 1930, and 1931. In 1920 Germany's share of the world trade was 0.9 per cent, in 1925 6.5, and in 1930 7.6 per cent.

## GERMAN EXPORTS OF LEATHER BELTING, BY COUNTRIES

Country of destination	1925		1926		1927		1928	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Marks	Kilos	Marks	Kilos	Marks	Kilos	Marks
Belgium.....	2,200	13,000	3,700	31,000				
Bulgaria.....	16,100	133,000	16,500	128,000	17,300	128,000	31,400	269,000
Denmark.....	4,500	41,000	4,800	40,000				
Estonia.....	1,100	10,000	3,500	31,000	5,500	47,000	5,300	45,000
Finland.....	3,300	32,000	5,400	51,000	1,800	19,000	4,800	45,000
Greece.....	7,800	72,000	6,600	52,000	8,600	73,000	12,300	119,000
Italy.....	7,300	65,000	5,000	46,000	5,900	60,000	7,600	103,000
Yugoslavia.....	1,200	15,000	3,400	32,000	2,200	23,000	3,200	35,000
Latvia.....	1,900	17,000	3,400	29,000	2,700	21,000	2,800	29,000
Lithuania.....	4,500	41,000	2,700	25,000	6,200	56,000	7,700	79,000
Netherlands.....	4,500	47,000	4,700	44,000	7,400	68,000	7,000	84,000
Austria.....	2,300	26,000	2,800	28,000	4,100	41,000	3,800	45,000
Poland and Danzig.....	9,200	115,000	14,100	164,000	23,700	241,000	24,100	27,600
Rumania.....	2,800	18,000	37,000	41,000	6,600	68,000	4,300	49,000

## GERMAN EXPORTS OF LEATHER BELTING, BY COUNTRIES—Continued

Country of destination	1925		1926		1927		1928	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Union of Socialist Soviet Republics.....	<i>Kilos</i> 3,700	<i>Marks</i> 35,000	<i>Kilos</i> 4,300	45,000	<i>Kilos</i> 8,100	78,000	<i>Kilos</i> 4,900	52,000
Sweden.....	23,500	212,000	10,700	97,000	6,700	69,000	9,100	95,000
Switzerland.....	2,200	26,000	6,400	52,000	5,100	49,000	6,100	60,000
Czechoslovakia.....	4,000	45,000	5,200	53,000	9,700	118,000	9,500	125,000
Egypt.....	2,400	19,000	4,600	37,000	3,700	31,000	9,900	80,000
Mandate of German South West Africa.....	200	2,000	1,900	23,000	1,300	16,000	1,500	25,000
Portuguese East Africa.....			2,800	23,000				
British India.....	12,100	107,000	6,500	58,000	4,900	48,000	4,100	39,000
China.....	28,500	228,000	41,800	324,000	27,500	225,000	55,700	474,000
Japan.....	400	5,000	8,200	93,000	2,600	22,000	2,800	30,000
Persia.....	700	7,000	4,400	37,000				
Turkey.....	24,500	212,000	18,900	153,000	20,600	163,000	17,700	147,000
Argentina.....	6,000	57,000	11,400	104,000	4,500	36,000	9,300	10,000
Brazil.....	3,300	38,000	9,000	90,000	2,400	24,000	2,000	20,000
Chile.....	6,700	65,000	5,500	54,000	5,600	49,000	6,900	68,000
Colombia.....	1,300	10,000	4,500	34,000	3,800	32,000	4,200	45,000
Mexico.....	11,000	10,500	2,100	21,000	3,800	35,000	13,100	34,000
United Kingdom.....			1,500	19,000	3,000	32,000	2,200	25,000
Netherland India.....					1,400	18,000	2,100	23,000
Dutch East Indies.....					2,300	20,000	3,200	39,000
Palestine.....					2,200	18,000	6,900	66,000
All other.....	31,100	429,500	20,200	148,000	19,500	199,000	20,100	650,400
Total.....	230,300	2,153,000	283,500	2,207,000	230,700	2,127,000	305,600	3,037,000

Country of destination	1929		1930		1931	
	Quantity	Value	Quantity	Value	Quantity	Value
Bulgaria.....	<i>Kilos</i> 26,800	<i>Marks</i> 249,000	<i>Kilos</i> 2,400	22,000	<i>Kilos</i> 8,100	51,000
Denmark.....	4,300	43,000	4,400	39,000	3,600	28,000
Estonia.....	7,100	65,000	3,400	32,000		
Finland.....	2,400	27,000	1,900	21,000		
Greece.....	9,800	88,000	5,300	42,000	4,600	29,000
Italy.....	23,200	263,000	17,500	188,000	10,200	85,000
Yugoslavia.....	5,500	58,000	2,500	27,000		
Latvia.....	5,200	47,000				
Lithuania.....	8,500	76,000	6,600	53,000	6,800	56,000
Netherlands.....	6,100	79,000	3,800	42,000	2,500	19,000
Austria.....	1,700	20,000	3,300	29,000	3,800	18,000
Poland and Danzig.....	25,900	311,000	10,300	99,000	3,700	33,000
Rumania.....	4,700	50,000	3,100	34,000	1,300	15,000
Union of Socialist Soviet Republics.....	6,100	64,000			2,700	22,000
Sweden.....	11,100	102,000	14,100	11,200	6,400	46,000
Switzerland.....	9,000	84,000	6,300	57,000	4,600	44,000
Czechoslovakia.....	10,700	123,000	6,100	73,000	5,700	47,000
Egypt.....	7,400	61,000	6,400	48,000	3,800	27,000
Mandate of German South West Africa.....	1,500	23,000	2,100	16,000		
British India.....	4,700	47,000	7,100	70,000	8,500	57,000
China.....	50,400	436,000	36,400	27,500	24,200	15,900
Turkey.....	25,200	193,000	10,000	70,000	9,400	63,000
United States.....			2,300	25,000		
Argentina.....	3,000	34,000	3,400	36,000	3,100	29,000
Brazil.....	5,100	54,000				
Chile.....	10,000	85,000	11,100	90,000	2,900	20,000
Colombia.....	4,300	40,000				
Cuba.....			2,100	19,000		
Mexico.....	3,200	33,000	5,800	54,000	4,700	54,000
British South Africa.....			1,600	14,000		
Netherland India.....	5,900	63,000			3,200	30,000
Palestine.....	6,500	54,000	5,300	38,000	4,000	28,000
France.....	2,600	24,000			4,000	28,000
Hungary.....			2,100	28,000		
Portugal.....	2,800	25,000	1,100	11,000		
Other Asia.....	3,300	35,000				
Philippines.....					1,200	10,000
Saar.....			700	8,000	300	2,000
All other.....	23,100	231,000	24,100	583,300	19,900	319,100
Total.....	327,100	3,187,000	212,600	1,907,000	155,100	1,194,000

Germany's share of the total world belting exports increased sharply after 1919, being 2 per cent in 1920, 8.5 per cent in 1921, and 14.1 in 1922. Dropping to 12.8 in 1923 its share has remained at about that level, being 12.2 per cent in 1930.

### FRANCE

France at the present time ranks third among nations competing in the export trade in belting, and has increased its share of the total world trade from 9 per cent in 1920 to 12.8 per cent in 1930. The French industry is strongest in the leather belting trade, but is perhaps becoming a more important factor in rubber belting in recent years. There is a small but growing trade in hair belting. No separate statistics are available to show the exports of other textile belting, but France is not an important competitor in woven cotton and stitched canvas belting. No figures are available for exports of rubber belting. However, exports of mechanical rubber goods are shown in kilos, and it is believed that 20 per cent of the total gross weight reported under this class may be a fair estimate of the amount of rubber belting exported.

The annual volume of belting exports from France is now much greater than in pre-war years, principally owing to gains made in the European leather belting trade at the expense of Germany and Great Britain. The following table shows total French belting exports, in pounds and kilos, for 1912 and 1913 and 1919 to 1931.

TOTAL FRENCH EXPORTS OF BELTING, 1912 AND 1913 AND 1919 TO 1931

Year	Quantity		Year	Quantity	
	Kilos	Pounds		Kilos	Pounds
1912.....	773, 200	1, 704, 132	1925.....	1, 232, 460	2, 716, 341
1913.....	757, 900	1, 670, 411	1926.....	1, 620, 280	3, 571, 097
1919.....	802, 820	1, 769, 415	1927.....	1, 357, 740	2, 942, 458
1920.....	1, 221, 680	2, 692, 582	1928.....	1, 478, 240	3, 258, 040
1921.....	888, 660	1, 958, 606	1929.....	1, 817, 283	4, 005, 291
1922.....	800, 000	1, 763, 200	1930.....	1, 607, 330	3, 542, 555
1923.....	1, 028, 300	2, 266, 373	1931.....	1, 248, 892	2, 752, 552
1924.....	1, 379, 000	3, 036, 316			

The French official trade statistics covering belting are less definite than for any other important belting-manufacturing country. As has been said, rubber belting exports have to be estimated from a class covering all mechanical rubber goods, such as belting, hose, packing, valves, washers, etc. Exports of leather belting are combined with certain other technical leather goods, in a single class, but since belting constitutes probably 80 per cent of the exports under this heading the statistics are fairly satisfactory. Exports of camel's hair belting are brought out in a definite class but there are no specific classifications covering cotton or other woven beltings. Added to these facts, the stated values of exports in the official French trade returns are not the invoice values, but are artificial arbitrary valuations set by the customs authorities and bear no relation to the actual selling price or real values of the products. Furthermore, the weights shown are gross weights. The unit of quantity used in the French statistics covering belting is the metric quintal, equal to 220.46 pounds or 100 kilos. For convenience the exports are stated in kilos. The table



following shows the officially reported exports of leather belting, etc., camel's hair belting, and mechanical rubber goods, the estimated volume of rubber belting exports being given in the final column.

## FRENCH EXPORTS OF BELTING

Year	Leather		Camel's hair		Mechanical rubber goods	Rubber belting <sup>1</sup>
	Quantity	Value	Quantity	Value	Quantity	Quantity
	Kilos	Francs	Kilos	Francs	Kilos	Kilos
1912.....	431,000	3,890,000	13,900	47,000	1,641,500	328,300
1913.....	432,600	3,902,000	11,400	39,000	1,569,500	313,900
1919.....	337,100	14,409,000	98,300	1,336,000	1,837,100	367,420
1920.....	756,000	20,110,000	42,800	1,197,000	2,114,400	422,880
1921.....	512,000	21,888,000	36,400	495,000	1,701,300	340,260
1922.....	496,100	13,854,000	50,600	1,013,000	1,316,500	263,300
1923.....	647,200	19,921,000	70,600	1,525,000	1,552,500	310,500
1924.....	865,700	36,853,000	76,800	1,689,000	2,182,600	436,500
1925.....	887,800	35,290,000	82,200	2,058,000	2,086,300	417,260
1926.....	1,044,300	63,315,000	86,700	2,352,000	2,446,400	489,280
1927.....	786,500	53,051,000	62,400	2,146,000	2,544,200	508,840
1928.....	768,200	27,732,000	91,000	3,058,000	3,095,200	619,040
1929.....	853,600	33,733,000	105,300	3,579,000	3,732,100	858,383
1930.....	752,200	28,118,000	75,200	2,595,000	3,391,000	779,930
1931.....	588,400	20,170,000	62,400	1,818,000	2,834,400	618,120

Estimated.

The percentage of French exports of belting supplied by the various classes has changed very little since before the war. In 1912 leather belting amounted to 55 per cent of the total, in 1930 it was 53. Corresponding figures for rubber belting are 42 and 40 per cent. Camel's hair belting has gained the losses of the other two classes, increasing from 1.8 to 5.7 per cent. The following table gives the percentage figures for 1912 and 1913 and 1920 through 1931.

## PERCENTAGE OF FRENCH EXPORTS OF BELTING SUPPLIED BY EACH CLASS

Year	Leather	Camel's hair	Rubber	Year	Leather	Camel's hair	Rubber
1912.....	55.7	1.8	42.5	1925.....	60.3	5.8	33.9
1913.....	57.0	1.5	41.5	1926.....	60.8	5.7	33.5
1919.....	42.0	12.2	45.8	1927.....	57.9	4.6	37.5
1920.....	61.9	3.5	34.6	1928.....	52.0	6.2	41.8
1921.....	57.6	4.9	37.5	1929.....	47.0	5.8	47.2
1922.....	60.8	6.3	32.9	1930.....	46.8	4.7	48.5
1923.....	62.9	6.8	30.3	1931.....	45.5	5.0	49.5
1924.....	62.8	5.6	31.6				

During the past 10 years France has become the world's largest exporter of leather belting. In 1920 its share of world trade in this product was 2 per cent, by 1925 it was 21, and by 1930 was 26 per cent. In 1921 the United Kingdom was the largest market for French leather belting, taking 116,000 kilos, with Germany second and Belgium and Luxembourg third. In 1929 the latter market had risen to first place, taking 183,400 gross kilos. Algiers was next, and Italy third. The following table shows the trade by countries from 1925 to 1930. In 1925, French colonies accounted for only 15 per cent of the total exports, but in 1930 they took over 32 per cent of the total. The trade with foreign countries has shown a declining trend in recent years, even before the present depression in world trade.

## FRENCH EXPORTS OF LEATHER BELTING, BY COUNTRIES, 1925-1930

Country of destination	1925	1926	1927	1928	1929	1930
	Kilos	Kilos	Kilos	Kilos	Kilos	Kilos
United Kingdom.....	145,900	121,900	110,500	63,800	65,500	48,900
Poland.....	7,800	70,000	11,800	17,000	.....	89,000
Germany.....	34,800	28,800	57,000	42,100	48,700	30,900
Belgium and Luxembourg.....	128,060	205,000	179,400	175,300	183,400	135,700
Switzerland.....	114,500	90,200	55,900	51,700	43,800	25,300
Italy.....	13,700	175,300	53,300	65,600	72,000	59,100
Spain.....	32,800	35,000	16,400	15,900	10,800	.....
Greece.....	16,100	18,400	6,900	13,700	15,500	5,500
Turkey.....	6,600	15,000	5,400	5,200	.....	.....
Portugal.....	8,300	17,500	16,400	9,700	12,600	7,300
Egypt.....	26,800	19,400	9,900	19,400	23,000	20,300
British Indies.....	.....	.....	.....	.....	9,000	39,000
United States.....	.....	6,100	11,400	5,600	9,400	16,600
Mexico.....	25,500	23,100	19,100	20,600	27,400	51,600
Brazil.....	22,200	17,000	16,600	10,700	12,800	6,500
Algiers.....	62,100	67,700	71,900	91,600	102,600	110,400
Tunisia.....	19,000	26,800	18,900	25,100	46,000	24,800
Morocco.....	14,500	21,600	17,700	16,700	22,900	22,100
French West Africa.....	.....	13,500	11,600	14,500	17,400	18,800
Madagascar.....	5,500	12,900	6,000	8,800	8,600	9,500
Indo-China.....	15,700	28,600	23,300	29,700	38,300	33,200
Argentina.....	5,900	9,600	.....	.....	.....	.....
Senegal.....	5,500	.....	.....	.....	.....	.....
Yugoslavia.....	.....	12,400	.....	.....	.....	.....
Japan.....	.....	5,500	.....	.....	.....	.....
Reunion.....	.....	6,200	.....	.....	.....	.....
Other colonies.....	10,600	17,200	.....	.....	.....	.....
Other countries.....	41,000	42,600	67,100	65,500	83,400	75,800
Total foreign.....	754,900	849,800	622,900	567,100	599,500	508,300
Total colonies.....	132,900	194,500	163,600	201,100	254,100	241,900
Grand total.....	887,800	1,044,300	786,500	768,200	853,600	750,200

French exports of camel's hair belting have more than doubled since 1921, rising from 36,400 gross kilos to 75,200 gross kilos in 1930. Its share of the world trade has increased from 1.6 to 3.7 per cent. In 1921 Rumania was the leading consumer, using 18,600 gross kilos, followed by Algiers and Indo-China. By 1929 Indo-China took 27,900 gross kilos, Algiers 24,900, and Morocco 11,600. The following table shows France's trade in this commodity by countries from 1925 to 1930.

## FRENCH EXPORTS OF CAMEL'S HAIR BELTING, BY COUNTRIES

Country of destination	1925	1926	1927	1928	1929	1930
	Kilos	Kilos	Kilos	Kilos	Kilos	Kilos
United Kingdom.....	700	.....	.....	.....	.....	.....
Austria.....	.....	.....	.....	1,000	.....	.....
Italy.....	3,100	1,000	2,100	3,200	2,700	4,600
Rumania.....	14,900	17,600	4,400	8,600	6,100	.....
Greece.....	.....	.....	.....	.....	4,100	.....
Turkey.....	.....	.....	.....	.....	1,600	.....
Spain.....	4,300	.....	.....	.....	1,400	1,900
Egypt.....	2,400	1,800	1,300	1,500	2,800	1,700
Brazil.....	8,800	8,900	1,900	4,100	1,800	.....
Algiers.....	17,100	10,300	9,700	14,000	24,900	15,700
Tunisia.....	2,900	6,200	2,900	3,100	6,800	6,000
Morocco.....	1,400	2,700	2,600	1,100	11,600	10,800
French Guiana.....	.....	.....	.....	1,700	.....	.....
Madagascar.....	.....	2,400	.....	3,700	2,100	2,400
Indo-China.....	14,200	25,300	23,800	36,900	27,900	20,900
Reunion.....	.....	2,200	2,600	1,600	.....	1,800
Martinique.....	.....	.....	1,700	.....	2,300	1,300
New Caledonia.....	.....	.....	.....	1,800	.....	.....
Chile.....	800	1,800	1,500	.....	.....	.....
Mexico.....	.....	.....	1,600	.....	.....	.....
Netherlands.....	700	.....	.....	.....	.....	.....
Belgium and Luxembourg.....	6,200	1,100	.....	.....	.....	.....
Other foreign.....	3,400	1,700	6,300	7,600	9,200	8,100
Total foreign.....	45,300	33,900	16,700	23,200	25,600	13,300
Other colonies.....	1,300	3,700	45,700	67,800	79,700	61,900
Total.....	82,200	86,700	62,400	91,000	105,300	75,200

## BELGIUM

Belgium is one of the strong competitors in the international belting trade, and its trade for a time grew in physical volume and in percentage of world total. In 1920 it supplied 3.4 per cent of the world belting trade; by 1928 that had risen to 5.8 but the following two years resulted in a decline from this level to 4.6 per cent in 1930, the decline being chiefly in leather belting exports.

Total Belgian exports of belting amounted to about 500,000 kilos a year before the war. This dropped to 261,000 kilos in 1921, climbed to 768,700 in 1929, and is now back a little below the pre-war level, as the following table shows.

TOTAL EXPORTS OF BELTING FROM BELGIUM

Year	Quantity		Year	Quantity	
	Kilos	Pounds		Kilos	Pounds
1912.....	533,619	1,173,961	1925.....	651,800	1,433,960
1913.....	493,521	1,085,746	1926.....	716,600	1,576,520
1920.....	464,768	1,022,489	1927.....	742,400	1,633,280
1921.....	261,261	574,774	1928.....	759,500	1,670,900
1922.....	371,144	816,516	1929.....	768,700	1,691,140
1923.....	608,796	1,339,351	1930.....	499,100	1,098,020
1924.....	554,835	1,220,637	1931.....	442,000	974,168

Two classes of belting were listed in the official Belgian export statistics prior to November 9, 1924, namely "leather" and "other sorts" of belting. Since then statistics on exports of cotton, camel's hair, leather, and rubber and balata are available, and are shown in the following table:

EXPORTS OF BELTING FROM BELGIUM, BY CLASSES

Year	Leather				Other sorts			
	Quantity		Value		Quantity		Value	
	Kilos	Francs	Kilos	Francs	Kilos	Francs	Kilos	Francs
1912.....	448,694	3,627,018	84,925	371,547				
1913.....	410,158	3,469,723	83,363	452,362				
1920.....	286,832	8,062,046	177,936	4,182,298				
1921.....	124,796	2,976,004	136,465	2,389,239				
1922.....	235,379	4,644,738	135,765	2,069,856				
1923.....	323,046	8,132,145	285,750	5,993,176				
1924.....	323,843	8,874,566	230,992	6,043,091				

Year	Leather		Cotton		Hair		Rubber and balata	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Francs	Kilos	Francs	Kilos	Francs	Kilos	Francs
1925.....	421,400	12,529,952	32,900	821,000	28,196	866,428	159,515	4,093,327
1926.....	446,600	16,722,000	64,900	1,862,000	54,700	1,867,000	150,400	5,278,000
1927.....	503,100	24,325,000	57,600	1,917,000	66,200	2,521,000	115,500	4,558,000
1928.....	503,600	28,438,000	78,200	2,883,000	39,800	1,750,000	137,900	5,732,000
1929.....	503,400	28,191,000	65,600	2,340,000	56,700	2,438,000	143,000	6,375,000
1930.....	278,400	14,804,000	48,200	1,757,000	13,800	639,000	158,700	5,515,000
1931.....	247,300	12,136,000	43,000	1,551,000	9,500	373,000	142,200	4,059,000

Leather belting makes up the bulk of Belgian shipments, but is declining. Having amounted to over two-thirds of the total in 1925, it fell to 55.9 per cent in 1931. Both cotton and rubber and balata belting are becoming more important, but hair belting is losing ground.

## PERCENTAGE OF BELGIAN BELTING EXPORTS SUPPLIED BY VARIOUS CLASSES OF BELTING

Year	Cotton	Camel's hair	Leather	Rubber and balata
1925.....	5.0	4.3	66.9	23.8
1926.....	10.0	7.6	62.3	20.1
1927.....	7.8	8.9	67.7	15.6
1928.....	10.3	5.2	66.3	18.2
1929.....	8.5	7.4	65.4	18.7
1930.....	9.7	2.8	55.8	31.8
1931.....	9.8	2.2	55.9	32.1

The United Kingdom took the largest amount of cotton belting from Belgium in 1930, while France, which previously was far the biggest buyer, had fallen to third place. France, however, is still in first place as a consumer of Belgian leather belting, replacing Germany in that field; while it also dominates the camel's hair belting trade. The Netherlands is the chief market for Belgian rubber and balata belting. The accompanying tables show the exports of these four classes of belting by countries from 1925 to 1930.

## BELGIAN EXPORTS OF RUBBER AND BALATA BELTING, BY COUNTRIES

Country of destination	1925		1926		1927	
	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Kilos</i>	<i>Francs</i>	<i>Kilos</i>	<i>Francs</i>	<i>Kilos</i>	<i>Francs</i>
Belgian Congo.....	5,100	150,000	7,900	247,000	4,500	97,000
Denmark.....	5,200	145,000			2,800	118,000
Spain.....					1,200	51,000
France.....	114,000	2,865,000	60,900	2,022,000	58,300	2,265,000
United Kingdom.....	2,400	6,400	4,000	143,000	7,200	191,000
Netherlands.....	12,900	421,000	23,500	984,000	19,600	899,000
Portugal.....	2,400	64,000	14,500	333,000	3,900	147,000
Switzerland.....					2,300	103,000
Chile.....			2,600	80,000		
French West Africa.....			3,300	106,000		
Finland.....			1,800	62,000		
Ireland.....			4,500	155,000		
Italy.....			21,500	980,000	1,100	61,000
Germany.....					2,800	145,000
Canada.....					1,600	72,000
Others.....	12,100	307,000	5,900	166,000	10,200	409,000
Total.....	154,100	4,016,000	150,400	3,509,000	115,500	4,558,000

Country of destination	1928		1929		1930	
	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Kilos</i>	<i>Francs</i>	<i>Kilos</i>	<i>Francs</i>	<i>Kilos</i>	<i>Francs</i>
Belgian Congo.....	7,400	258,000	6,700	283,000		
Spain.....	3,400	150,000	3,500	146,000		
France.....	52,600	2,249,000	55,500	2,754,000	34,500	1,321,000
United Kingdom.....	6,700	294,000	4,800	205,000		
Netherlands.....	38,800	1,553,000	42,600	1,780,000	106,400	3,473,000
Portugal.....	3,900	150,000				
Chile.....			2,200	120,000		
Brazil.....			3,300	136,000		
Poland.....			3,500	143,000		
Italy.....	6,700	303,000				
Austria.....	2,500	97,000				
Germany.....	1,900	74,000				
United States.....	1,000	53,000				
Tunisia.....	3,500	185,000	3,800	191,000		
Others.....	9,500	366,000	17,100	617,000	17,800	721,000
Total.....	137,900	5,732,000	143,000	6,375,000	158,700	5,515,000

## INTERNATIONAL TRADE IN MACHINERY BELTING

57

## BELGIAN EXPORTS OF COTTON BELTING, BY COUNTRIES

Country of destination	1925		1926		1927	
	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Francs	Kilos	Francs	Kilos	Francs
Germany.....					4,300	141,000
France.....	8,400	227,000	18,600	508,000		
Canada.....					5,400	23,000
United Kingdom.....	1,800	45,000	3,100	133,000	5,900	26,900
Spain.....			7,400	186,000	3,900	120,000
Netherland India.....	2,300	49,000	1,800	45,000	3,300	89,000
Italy.....	1,400	41,000				
Netherlands.....	7,900	150,000	10,400	308,000	10,500	398,000
Greece.....					2,900	107,000
Rumania.....	4,600	149,000	900	23,000	3,800	99,000
Bulgaria.....			1,400	28,000		
Lithuania.....					1,700	85,000
United States.....			16,100	470,000	6,800	81,000
Latvia.....			1,100	40,000		
Others.....	6,500	16,000	4,100	121,000	9,100	298,000
Total.....	32,900	921,000	64,900	1,862,000	57,600	1,917,000

Country of destination	1928		1929		1930	
	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Francs	Kilos	Francs	Kilos	Francs
Germany.....	6,100	199,000				
France.....	4,600	155,000	6,900	180,000	4,900	160,000
United Kingdom.....	8,900	383,000	7,200	28,600	5,600	96,000
Spain.....	7,100	259,000				
Netherland India.....	2,200	74,000				
Chile.....	3,100	97,000				
Brazil.....			4,300	146,000	1,100	46,000
Netherlands.....	28,100	1,090,000	10,700	420,000	5,300	232,000
Greece.....	3,800	134,000				
Rumania.....	8,700	262,000	3,300	12,000		
Peru.....			4,500	201,000	700	34,000
British India.....			4,900	146,000		
Turkey.....			4,800	147,000	600	20,000
Uruguay.....			2,600	13,300		
Others.....	5,600	230,000	16,400	561,000	34,200	1,169,000
Total.....	78,200	2,883,000	65,600	2,340,000	48,200	1,757,000

## BELGIAN EXPORTS OF HAIR BELTING, BY COUNTRIES

Country of destination	1925		1926		1927	
	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Francs	Kilos	Francs	Kilos	Francs
France.....	19,100	584,000	42,600	1,394,000	50,800	1,913,000
Italy.....	1,400	39,000	800	31,000		
Netherlands.....	900	27,000	800	30,000	800	4,400
Rumania.....	5,400	186,000	7,900	290,000	1,800	6,000
Egypt.....			1,800	82,000	1,800	80,000
United Kingdom.....					3,900	123,000
Tunisia.....					1,600	102,000
Uruguay.....					1,300	43,000
Other countries.....	1,400	35,000	800	40,000	4,200	156,000
Total.....	28,200	871,000	54,700	1,867,000	66,200	2,521,000

## BELGIAN EXPORTS OF HAIR BELTING, BY COUNTRIES—Continued

Country of destination	1928		1929		1930	
	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Kilos</i>	<i>Francs</i>	<i>Kilos</i>	<i>Francs</i>	<i>Kilos</i>	<i>Francs</i>
France.....	23,600	1,023,000	24,200	1,135,000	6,300	286,000
Netherlands.....	5,700	285,000	3,500	180,000	1,900	96,000
Greece.....			2,400	89,000		
Egypt.....	2,500	92,000	2,800	150,000		
United Kingdom.....	3,800	150,000	1,900	72,000		
Brazil.....			2,200	70,000		
Tunisia.....	1,000	77,000				
French Indo-China.....	12,300	393,000				
Other countries.....	3,200	123,000	7,400	349,000	5,600	257,000
Total.....	39,800	1,750,000	56,700	2,438,000	13,800	639,000

## BELGIAN EXPORTS OF LEATHER BELTING, BY COUNTRIES

Country of destination	1925		1926		1927	
	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Kilos</i>	<i>Francs</i>	<i>Kilos</i>	<i>Francs</i>	<i>Kilos</i>	<i>Francs</i>
Belgian Congo.....	21,533	406,092	15,900	591,000	17,300	838,000
Germany.....	90,029	2,399,653	67,700	2,610,000	107,200	5,439,000
Austria.....			4,500	123,000		23,200
Bulgaria.....			4,100	104,000	2,900	18,300
China.....			4,600	109,000		
Denmark.....	13,323	363,037	31,800	807,000	200	78,300
Egypt.....			6,800	147,000		
Spain.....			2,700	135,000		
France.....	31,141	1,339,393	42,100	1,922,000	36,100	1,923,000
United Kingdom.....	10,019	239,990	17,200	603,000	56,700	204,800
Greece.....			10,400	384,000	17,700	700,000
Italy.....	80,979	3,185,720	84,500	3,619,000	57,400	3,443,000
Mexico.....			4,100	215,000		
Palestine.....			2,500	100		
Netherlands.....	34,699	1,070,386	38,400	1,427	26,100	1,567,000
Poland.....			13,100	654,000	29,000	1,874,000
Portugal.....	15,888	486,552	24,600	778,000	18,300	701,000
Rumania.....					6,400	296,000
Sweden.....			7,300	193,000	4,800	279,000
Switzerland.....	18,518	701,090	17,000	740,000	25,400	1,537,000
Tunisia.....					10,000	310,000
Czechoslovakia.....			4,000	131,000	5,800	349,000
Turkey.....	23,415	416,430	13,100	367,000	14,200	402,000
Others.....	81,896	1,921,608	30,200	963,000	34,800	1,421,000
Total.....	421,400	12,529,952	446,600	16,722,000	503,100	24,325,000

Country of destination	1928		1929		1930	
	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Kilos</i>	<i>Francs</i>	<i>Kilos</i>	<i>Francs</i>	<i>Kilos</i>	<i>Francs</i>
Belgian Congo.....	37,300	2,259,000	50,600	2,607,000	31,400	1,558,000
Germany.....	44,500	3,130,000	24,800	1,861,000	16,200	897,000
Brazil.....	11,000	48,200	14,100	654,000		
Denmark.....			15,200	664,000		
Egypt.....	6,100	300,000	12,600	517,000		
Finland.....	4,800	314,000				
France.....	41,000	3,051,000	39,000	2,810,000	42,400	2,402,000
United Kingdom.....	27,200	1,204,000	8,300	517,000		
Greece.....	20,200	852,000	15,500	824,000		
Italy.....	77,600	4,207,000	91,300	4,305,000	35,600	1,757,000
Netherlands.....	35,400	2,256,000	35,400	1,871,000	15,900	884,000
Poland.....	18,700	1,646,000	32,200	1,861,000	8,000	607,000
Danzig.....			7,500	319,000		
Portugal.....	15,400	618,000	16,000	737,000		
Sweden.....	7,500	728,000				
Switzerland.....	26,200	1,888,000	48,800	3,689,000	21,800	1,486,000
Tunisia.....			6,400	394,000		
Turkey.....	16,500	824,000	24,700	1,612,000		
Others.....	65,800	3,175,000	61,000	2,949,000	107,100	4,215,000
Total.....	503,600	28,438,000	503,400	28,191,000	278,400	14,804,000

## EXPORTS OF LEATHER BELTING FROM NETHERLANDS—Continued

Country of destination	1928		1929		1930	
	Kilos	Guilders	Kilos	Guilders	Kilos	Guilders
Brazil.....	8,072	30,189	10,636	41,939	4,917	15,959
Curacao.....	2,253	9,953	2,124	8,122	1,551	4,867
Cuba.....			506	1,940	1,984	6,570
Surinam.....	571	2,358	1,831	7,546	214	1,028
Mexico.....					288	1,507
Venezuela.....	1,874	7,647	2,504	10,299	8,829	39,072
Uruguay.....					270	1,320
Latvia.....	1,839	12,124	1,346	8,737	2,179	10,767
Greece.....	1,186	6,725	3,290	16,680	450	1,925
Egypt.....					317	1,525
Portuguese East Africa.....	373	1,600	589	3,034	519	2,052
China.....	9,393	39,138	17,868	73,508	15,269	53,416
Japan.....	1,877	6,920	1,766	6,099	696	2,151
South Africa.....	1,346	6,090	1,288	6,262	2,815	8,862
Algeria and Tunisia.....	662	2,700	775	3,050		
Others.....	834	4,508			326	1,795
Total.....	268,461	1,342,600	256,333	1,209,197	220,238	954,815

## AVERAGE VALUE PER POUND OF EXPORTS OF LEATHER BELTING FROM NETHERLANDS

1919.....	\$1.52	1923.....	\$0.81	1927.....	\$0.78
1920.....	1.14	1924.....	.78	1928.....	.91
1921.....	.93	1925.....	.80	1929.....	.86
1922.....	.85	1926.....	.75	1930.....	.79

## ITALY

The total amount of belting exported annually from Italy, which is now at about the same level as before the war, has, however, declined 40 per cent from the peak that was reached in 1923. The belting industry is well diversified, but the exports are relatively unimportant and somewhat spasmodic. The following table shows total exports of belting from Italy by years for 1912, 1913, and 1919 through 1931, in kilos and lire. Weight in pounds is given to aid in comparisons.

## TOTAL EXPORTS OF BELTING FROM ITALY

Year	Quantity		Value (lire)	Year	Quantity		Value (lire)
	Kilos	Pounds			Kilos	Pounds	
1912.....	33,300	73,393	251,672	1925.....	95,800	211,143	3,523,889
1913.....	65,800	145,023	457,850	1926.....	72,400	159,569	2,595,416
1919.....	95,000	209,380	2,827,015	1927.....	88,900	195,935	2,370,071
1920.....	82,400	181,609	2,718,600	1928.....	52,000	114,608	1,512,918
1921.....	100,100	220,620	4,234,522	1929.....	60,900	134,223	1,733,817
1922.....	71,200	156,924	2,696,703	1930.....	42,800	94,331	1,103,631
1923.....	102,700	226,350	3,762,305	1931.....	28,500	62,814	706,348
1924.....	59,100	130,256	1,691,368				

Prior to the World War leather belting was the largest class exported, followed by camel's hair, canvas and hemp, and rubber in that order. As is evident from the following table, in 1929 this order was reversed, and rubber led, canvas and hemp came second, leather third, and camel's hair last. By 1931 canvas and hemp belting made up the largest class by volume, leather was second, followed by rubber and camel's hair. The table shows yearly exports of these classes, the figures for canvas and hemp belting including hose as well.

## INTERNATIONAL TRADE IN MACHINERY BELTING

## EXPORTS OF BELTING FROM ITALY, BY CLASSES

Year	Leather belting		Camel's-hair belting		Rubber belting		Canvas and hemp belting and hose	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Kilos</i>	<i>Lire</i>	<i>Kilos</i>	<i>Lire</i>	<i>Kilos</i>	<i>Lire</i>	<i>Kilos</i>	<i>Lire</i>
1912.....	18,500	183,150	9,500	59,850	700	4,550	4,600	14,122
1913.....	22,700	231,540	29,100	183,330			14,000	42,980
1919.....	46,200	1,848,000	4,000	160,000	9,500	199,500	35,300	619,515
1920.....	37,400	1,496,000	6,700	341,700			38,300	880,900
1921.....	37,500	1,511,272	47,400	2,347,981	2,000	60,000	13,200	315,269
1922.....	14,800	737,268	20,300	1,141,460	13,700	385,779	22,400	432,196
1923.....	20,000	671,335	20,800	1,265,457	29,600	1,258,900	32,300	566,583
1924.....	18,200	714,491	5,600	208,473	9,800	212,788	23,500	555,618
1925.....	34,400	1,619,492	14,800	663,736	22,700	616,154	23,900	624,507
1926.....	23,900	1,119,666	4,000	150,762	18,900	611,318	25,600	713,670
1927.....	12,500	528,655	2,300	81,550	21,400	625,033	52,700	1,134,833
1928.....	16,900	751,428	1,800	41,135	14,000	393,113	19,300	327,242
1929.....	14,700	608,016	1,600	56,093	28,400	751,087	16,200	318,621
1930.....	16,600	566,273	6,000	157,087	3,200	117,085	17,000	263,186
1931.....	10,000	345,351	1,700	33,512	3,600	86,626	13,200	240,859

There is no such marked increase in the present volume of exports, as compared to pre-war, as to warrant a belief that the Italian industry is likely to become a more important figure in the future international trade in belting. Exports of belting from Italy are more or less spasmodic, varying widely from year to year. In 1920 Italy supplied 0.6 per cent of the world trade; in 1921 its share was 1.2; in 1925 0.8; in 1929, the last year for which figures are available, 0.4 per cent.

Italian figures are much delayed in making their appearance, but the table following shows the volume of exports of leather belting, camel's-hair belting, and canvas and hemp belting and hose not impregnated with oil, by countries, for 1920 and 1928. The bulk of the trade is with France and near-by European countries.

## ITALIAN EXPORTS OF BELTING IN 1920, BY COUNTRIES AND CLASSES

Country of destination	Leather belting		Cam-el's-hair belting	Canvas and hemp belting and hose	Country of destination	Leath-er belt-ing		Cam-el's-hair belting	Canvas and hemp belting and hose
	Kilos	Kilos				Kilos	Kilos		
Austria.....	10,300	1,400	500		Turkey in Asia.....	100	1,000	800	
Belgium.....	500		500		Aden.....	200			
Bulgaria.....	1,000	400	500		Egypt.....	400	1,700	500	
France.....	14,400		15,200		Algeria.....	100			
Greece.....	400	200	700		Belgian Congo.....	100			
Malta.....	100				Tunisia.....	300		300	
Norway.....			2,900		Argentina.....			2,300	
Portugal.....			800		Brazil.....		500		
Yugoslavia.....	800	500			Ecuador.....	200			
Rumania.....	400	500	200		Eritrea.....	1,200			
Russia.....			700		Tripoli and Cyrene.....	1,100		100	
Spain.....			200		For use on ships.....				1,400
Sweden.....			9,900						
Switzerland.....	700	300			Total.....	37,400	6,700	38,300	
Turkey in Europe.....	5,100	200	1,300						



## ITALIAN EXPORTS OF BELTING, BY COUNTRIES AND CLASSES, 1928

Country of destination	Leather		Camel's hair		Rubber	
	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Kilos</i>	<i>Lire</i>	<i>Kilos</i>	<i>Lire</i>	<i>Kilos</i>	<i>Lire</i>
Albania.....	1,000	40,910				
Belgium.....	400	30,260			100	1,140
Denmark.....	100	2,890				
France.....	2,900	102,023	400	9,032		
Yugoslavia.....	800	11,123	300	1,500	500	1,040
Great Britain.....	100	1,280				
Greece.....	100	3,820				
Spain.....	300	11,123	100	1,830		
Switzerland.....	100	4,463				
British India and Ceylon.....	200	7,330			7,300	209,495
Turkey in Europe.....	400	23,750			200	4,990
Turkey in Asia.....	400	16,615				
Egypt.....	2,300	86,681	500	13,638	1,400	48,820
Morocco.....	100	2,480				
Tunisia.....	100	4,500				
British Africa.....	100	4,500	100	1,830		
Aden.....					700	21,050
Argentina.....	2,600	153,570			200	6,050
Brazil.....	100	4,655				
Peru.....	400	23,110				
Venezuela.....	100	4,600				
Franco Trieste.....	500	17,139				
United States.....	700	40,830				
Total.....	13,800	617,501	1,400	27,830	10,400	292,585
Eritrea.....	1,200	46,560	200	7,520	2,000	56,465
Italian Somaliland.....	600	30,567			200	7,700
Tripoli.....	1,300	56,800	200	5,785	1,400	36,363
Total.....	3,100	133,927	400	13,305	3,600	100,528
Grand total.....	16,900	751,428	1,800	41,135	14,000	393,113

## SWITZERLAND

Switzerland produced leather and woven belting for export regularly up to 1924, and since then has also shipped rubber belting abroad. Total Swiss exports of belting averaged about 120,000 kilos before the war, rose sharply in the years immediately after the war to 188,000 in 1919; dropped in the 1921 depression to a low of 41,100, continued at a reduced level until 1928, and are now at approximately the pre-war figure. Switzerland's share of total world trade is fractional, being a little more than one-half of 1 per cent. In 1930 its proportion increased to 1.2 per cent, showing that sometimes the small Swiss trade holds up better in periods of subnormal business than does that of the average country. The table following shows total exports for 1912, 1913, and 1919 through 1930.

## TOTAL EXPORTS OF BELTING FROM SWITZERLAND

Year	Quantity		Value (francs)	Year	Quantity		Value (francs)
	Kilos	Pounds			Kilos	Pounds	
1912.....	124,900	275,279	847,887	1924.....	64,300	141,717	702,000
1913.....	104,400	230,097	775,526	1925.....	58,900	129,735	702,728
1919.....	188,800	416,115	3,506,792	1926.....	80,522	177,435	659,000
1920.....	104,500	230,318	1,940,307	1927.....	81,708	180,084	975,553
1921.....	41,100	90,584	699,664	1928.....	120,525	265,637	1,187,681
1922.....	53,500	117,914	545,000	1929.....	196,694	433,513	1,146,623
1923.....	66,900	147,447	689,000	1930.....	129,221	284,803	821,725

Rubber belting has now become the largest class, in volume, of belting exported from Switzerland, amounting in 1930 to 57,800 kilos against 41,995 kilos of leather belting, and 29,466 of woven. However, in value the leather exports are far the largest.

## ANNUAL EXPORTS OF BELTING FROM SWITZERLAND, BY CLASSES

Year	Rubber		Leather belting		Woven belting	
	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Francs	Kilos	Francs	Kilos	Francs
1912.....			69,000	608,545	55,900	239,342
1913.....			59,400	599,790	45,000	175,736
1919.....			115,500	2,645,604	73,300	861,188
1920.....			58,700	1,242,742	45,800	697,565
1921.....			21,300	427,906	19,800	271,758
1922.....			25,500	355,000	28,000	190,000
1923.....			29,400	447,000	37,500	242,000
1924.....			35,800	521,000	28,500	181,000
1925.....			33,600	529,693	25,300	173,000
1926.....	26,000	2,010	40,417	556,476	14,106	100,514
1927.....	3,400	382	52,482	801,358	25,826	173,813
1928.....	28,900	5,098	61,790	982,388	29,855	200,195
1929.....	101,200	6,372	57,044	882,438	38,450	257,813
1930.....	57,800	3,834	41,955	637,267	29,466	180,624

In 1930 Egypt was the largest market for Swiss woven belting, taking 21,760 kilos. Italy took the largest share of leather belting, while the bulk of the very limited trade in rubber belting went to France and Belgium. The Swiss share of world trade in leather belting averages about 1.5 per cent, that of cotton belting about 1 per cent, and that of rubber belting only a fraction. The following tables show the Swiss belting trade by countries for 1925-1930.

EXPORTS OF LEATHER BELTING FROM SWITZERLAND TO FOREIGN COUNTRIES  
1925-1930

## QUANTITY

Country of destination	1925	1926	1927	1928	1929	1930
	Kilos	Kilos	Kilos	Kilos	Kilos	Kilos
Austria.....	800	1,499	2,122	4,242	3,152	2,143
Belgium.....	100	80	80	208	219	316
Bulgaria.....		51				
Czechoslovakia.....	200	672	1,551	1,593	1,902	1,124
Denmark.....		418	172	300	196	288
Finland.....		29		197		
France.....	1,500	1,261	1,779	1,705	1,118	1,643
Germany.....	6,100	3,669	11,229	11,023	9,410	8,684
Greece.....	100	1,809	1,381	705	2,316	1,080
Hungary.....	500	2,199	4,176	3,299	3,036	1,728
Italy.....	18,600	14,912	15,694	22,142	19,231	15,117
Lithuania.....	200	751	110	117	93	168
Netherlands.....	100	25	155	40	575	929
Norway.....		40	55	16		31
Poland.....	500	274	347	402	353	71
Portugal.....		22	138	299	318	128
Rumania.....	100	2,901	1,662	2,128	2,096	1,442
Spain.....	300	619	1,646	2,710	1,840	1,037
Sweden.....	1,800	1,397	3,418	1,823	1,404	1,336
Turkey.....		1,327	94	103	302	
United Kingdom.....	200	186	373	539	217	150
Yugoslavia.....	200	1,727	1,668	2,791	1,457	292
United States.....			394	715	1,328	429
Cuba.....					55	
Argentina.....	200	96	102		64	171
Bolivia.....		78			46	
Brazil.....	500	1,342	1,860	2,601	3,679	1,656
Chile.....						

## INTERNATIONAL TRADE IN MACHINERY BELTING

65

EXPORTS OF LEATHER BELTING FROM SWITZERLAND TO FOREIGN COUNTRIES,  
1925-1930—Continued

## QUANTITY—Continued

Country of destination	1925	1926	1927	1928	1929	1930
	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>
Colombia.....		178				
Peru.....		82				
Uruguay.....				31		
Venezuela.....			71	280		
British India.....	100	190	158	107		169
China.....			102	196	170	
Netherland India.....		46		98	164	
Japan.....		64				
Algeria.....		103	71			
British West Africa.....						127
British South Africa.....		36				
Egypt.....	700	1,223	1,110	743	1,267	235
Morocco.....					22	986
Baltic countries.....	800	1,036	694	512	887	348
Other countries.....		75	70	125	127	124
Total.....	33,600	40,417	52,482	61,790	57,044	41,955

## VALUE

	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>
Austria.....	17,000	25,125	36,994	65,392	62,046	39,843
Belgium.....	1,000	1,158	1,369	2,945	4,192	9,380
Bulgaria.....		603				
Czechoslovakia.....	4,000	11,944	21,749	27,851	29,463	16,048
Denmark.....	1,000	4,065	2,167	3,206	2,900	4,127
Finland.....		574		3,506		
France.....	20,000	13,909	20,624	21,695	17,843	22,412
Germany.....	133,000	69,343	202,696	233,876	203,510	176,545
Greece.....	3,000	18,360	13,964	9,128	24,482	13,942
Hungary.....	11,000	33,952	63,670	53,822	48,509	27,988
Italy.....	228,000	191,248	203,782	290,004	236,942	185,396
Lithuania.....	3,000	8,383	1,185	1,576	950	1,757
Netherlands.....	3,000	485	1,613	804	10,051	14,785
Norway.....		685	733	590		702
Poland.....	8,000	4,375	5,807	8,703	9,042	1,387
Portugal.....	1,000	589	1,610	3,775	4,245	2,306
Rumania.....	1,000	27,483	16,743	25,226	21,543	14,354
Spain.....	4,000	11,814	33,003	60,210	44,873	17,750
Sweden.....	48,000	42,198	91,455	48,281	29,552	24,570
Turkey.....		11,991	1,016	2,256	3,749	
United Kingdom.....	3,000	3,130	7,123	11,365	4,114	2,252
Yugoslavia.....	3,000	16,188	17,313	37,599	18,257	3,563
United States.....			4,502	8,134	25,440	6,912
Cuba.....					1,213	
Argentina.....	2,000	1,898	734		1,351	3,640
Bolivia.....	1,000	1,640			900	
Brazil.....	10,000	17,833	21,186	30,232	41,431	16,094
Chile.....	1,000					
Colombia.....		2,980				
Peru.....		933				
Uruguay.....				711		
Venezuela.....			1,590	5,086		
British India.....	1,000	2,200	1,300	1,300		3,189
China.....			941	2,123	1,936	
Netherland India.....		978		2,763	3,958	
Japan.....		628				
Algeria.....		1,575	900			
British West Africa.....						1,576
British South Africa.....		715				
Egypt.....	14,000	15,117	17,292	11,440	18,757	3,715
Morocco.....					590	18,160
Baltic countries.....	9,000	11,334	6,761	6,397	8,662	2,916
Other countries.....		1,043	886	2,392	1,928	1,958
Total.....	530,000	556,476	801,358	962,368	882,438	637,267

## EXPORTS OF BELTING (EXCEPT RUBBER AND LEATHER) FROM SWITZERLAND TO FOREIGN COUNTRIES, 1925-1930

## QUANTITY

Country of destination	1925	1926	1927	1928	1929	1930
	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>
Austria.....	200	707	76	422	49	57
Belgium.....	300	303	946	297	120	126
Bulgaria.....					136	60
Czechoslovakia.....	100	1,081	155	370	186	
Denmark.....				23	15	
France.....	13,900	7,482	17,473	1,514	1,662	1,589
Germany.....	600	953	815	605	423	429
Greece.....	2,500		55	1,724	763	508
Hungary.....					80	
Italy.....	500	60	314	568	322	104
Lithuania.....		181	195	461	72	112
Netherlands.....	300			49	45	
Poland.....			341	333		
Portugal.....					1,373	1,175
Rumania.....	4,200					
Sweden.....	400			123		47
United Kingdom.....		2			1	1
Yugoslavia.....		204			136	
Argentina.....					316	189
Brazil.....				313	510	
Chile.....					100	306
British India.....		61				
French Indo-China.....			282	924		
Iraq.....				2,556	806	672
Syria.....				104		
Egypt.....	800	306	600	12,780	26,529	21,760
Algeria.....	1,500	568	2,381	643	765	540
Morocco.....				1,304	1,113	
Baltic countries.....		2,185	2,118	4,692	2,914	1,656
Other countries.....		13	75	30	14	135
Total.....	25,300	14,106	25,826	29,835	38,450	29,466

## VALUE

	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>
Austria.....	4,000	4,456	1,262	2,736	548	456
Belgium.....	2,000	2,810	6,340	2,552	2,178	1,864
Bulgaria.....					1,100	500
Czechoslovakia.....	1,000	8,188	1,915	5,325	2,551	
Denmark.....				270	170	
France.....	89,000	49,468	112,235	11,374	14,204	10,729
Germany.....	11,000	13,405	8,550	8,875	6,137	5,536
Greece.....	16,000		400	11,388	5,290	3,300
Hungary.....					686	
Italy.....	5,000	880	2,920	4,665	3,160	1,244
Lithuania.....		1,100	1,160	2,930	500	662
Netherlands.....	2,000			480	610	
Poland.....			2,528	1,900		
Portugal.....					8,400	6,800
Rumania.....	27,000					
Sweden.....	2,000			800		519
United Kingdom.....		65			20	91
Yugoslavia.....		1,464			820	
Argentina.....					2,080	1,200
Brazil.....				2,625	3,997	
Chile.....					650	2,080
British India.....		400				
French Indo-China.....			1,880	5,680		
Iraq.....				14,720	5,000	3,900
Syria.....				950		
Egypt.....	5,000	1,880	3,580	85,020	168,680	126,800
Algeria.....	9,000	3,560	16,720	4,190	5,000	3,600
Morocco.....			13,487	8,370	7,100	
Baltic countries.....		12,605	836	25,113	18,637	9,840
Other countries.....		223		232	295	1,503
Total.....	173,000	100,514	173,813	200,195	257,813	180,624

EXPORTS OF RUBBER BELTING FROM SWITZERLAND TO FOREIGN COUNTRIES,  
1925-1931

## QUANTITY

Country of destination	1925	1926	1927	1928	1929	1930
	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>
Austria.....		13				65
Belgium.....						1
Czechoslovakia.....				14		81
France.....			8	1	5	16
Germany.....		151		51	860	
Hungary.....					81	
Italy.....		83		126	10	
Netherlands.....				30	15	37
Rumania.....						293
United Kingdom.....					2	1
Yugoslavia.....		13				
United States.....						2
Netherland India.....				20		
Other countries.....			26	47	39	82
<b>Total.....</b>		<b>260</b>	<b>34</b>	<b>289</b>	<b>1,012</b>	<b>578</b>

## VALUE

	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>
Austria.....		253				870
Belgium.....						30
Czechoslovakia.....				150		642
France.....			51	21	70	273
Germany.....		1,000		1,275	4,242	
Hungary.....					1,060	
Italy.....		490		1,900	159	
Netherlands.....				340	153	710
Rumania.....						600
United Kingdom.....			30		50	19
Yugoslavia.....		267				
United States.....						60
Netherland India.....				586		
Other countries.....			301	826	618	630
<b>Total.....</b>		<b>2,010</b>	<b>382</b>	<b>5,098</b>	<b>6,372</b>	<b>3,834</b>

## AUSTRIA

The Austrian export trade in belting products is now about double the pre-war level, although less than one-third the total reached in 1922 and 1923, the best years for that trade. Austria produces about 1 per cent of the total world exports, the percentage remaining nearly constant since 1920, except for an increase in the years 1921 through 1924. The accompanying table shows the total Austrian belting trade for 1912, 1913, and 1920 through 1930.

## TOTAL EXPORTS OF BELTING FROM AUSTRIA

Year	Kilos	Pounds	Value (crowns)	Year	Kilos	Pounds	Value (crowns)
1912.....	85,600	188,662	523,435	1925.....	135,500	296,642	1,715,000
1913.....	83,100	183,152	535,455	1926.....	106,500	234,726	1,314,000
1920.....	117,100	258,068	764,845	1927.....	98,700	217,534	1,400,500
1921.....	217,500	479,370	1,462,760	1928.....	124,600	274,618	2,269,500
1922.....	329,900	727,099	2,225,725	1929.....	162,500	358,150	2,522,400
1923.....	369,000	813,276	2,793,000	1930.....	112,700	248,390	1,673,600
1924.....	189,100	416,776	1,689,000				

Austrian official figures are available for exports of leather belting, rubber belting, cotton and hemp belting, and wool and hair belting. The trade in leather belting is by far the most important; both cotton and hemp, and wool and hair exports are declining, but rubber belting exports are now nearly double the pre-war and 1920 level.

## EXPORTS OF BELTING FROM AUSTRIA, BY CLASSES

Year	Leather		Rubber		Cotton and hemp		Wool and hair	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	<i>Kilos</i>	<i>Crowns</i>	<i>Kilos</i>	<i>Crowns</i>	<i>Kilos</i>	<i>Crowns</i>	<i>Kilos</i>	<i>Crowns</i>
1912.....	68,900	454,350	5,200	24,700	8,900	35,805	2,600	8,580
1913.....	67,600	468,375	10,000	47,975	3,200	11,515	2,300	7,590
1920 <sup>1</sup> .....	100,600	696,410	10,500	48,215	3,400	12,100	2,600	8,120
1921.....	200,000	1,392,340	11,100	49,320	3,600	12,600	2,800	8,500
1922.....	204,700	2,167,000	11,900	45,000	3,100	11,325	3,100	2,400
1923.....	257,000	2,724,000	7,100	27,000	3,900	27,000	2,000	15,000
1924.....	179,000	1,624,000	2,700	12,000	6,100	44,000	1,300	9,000
1925.....	129,800	1,605,000	3,500	93,000	1,800	13,000	400	4,000
1926.....	103,100	1,235,000	500	12,000	2,600	63,000	300	4,000
1927.....	78,200	1,061,000	17,700	329,000	600	9,000	2,200	1,500
1928.....	105,900	1,963,000	18,100	324,000	100	2,000	500	600
1929.....	143,600	2,176,000	18,100	341,000	600	5,000	200	4,000
1930.....	95,500	1,353,000	16,300	318,000	200	2,000	700	6,000

<sup>1</sup> Estimated.

Yugoslavia has always been the largest market for exports of leather belting from Austria. Bulgaria is now second, and Italy third. Hungary is now the heaviest purchaser of rubber belting, Germany of cotton, and in 1929 Yugoslavia and Czechoslovakia divided the bulk of the small trade in wool and hair belting. The following table shows Austrian belting exports by countries in 1923 and 1929.

## AUSTRIAN EXPORTS OF BELTING, BY CLASSES AND COUNTRIES

Country of destination	1923			
	Cotton	Leather	Rubber	Wool and hair
	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>
Poland.....	700	70,300	2,100	-----
Rumania.....	700	23,600	900	-----
Yugoslavia.....	900	130,800	-----	1,300
Czechoslovakia.....	800	1,300	2,900	100
Hungary.....	800	7,600	-----	300
Bulgaria.....	-----	8,300	-----	-----
Italy.....	-----	7,600	-----	-----
Germany.....	-----	500	-----	-----
Other.....	-----	2,000	1,200	300
Total.....	3,900	257,000	7,100	2,000

## AUSTRIAN EXPORTS OF BELTING, BY CLASSES AND COUNTRIES—Continued

Country of destination	1929							
	Leather		Rubber		Cotton		Wool and hair	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Shillings	Kilos	Shillings	Kilos	Shillings	Kilos	Shillings
Germany.....	1, 100	18, 000	200	5, 000	400	2, 000		
Italy.....	12, 500	180, 000	100	1, 000				
Poland.....	3, 500	57, 000	3, 300	48, 000				
Rumania.....	4, 800	77, 000	2, 700	51, 000				1, 000
Switzerland.....	200	3, 000						
Yugoslavia.....	79, 300	1, 210, 000	3, 500	79, 000			100	1, 000
Czechoslovakia.....	700	21, 000	3, 600	80, 000	100	2, 000	100	2, 000
Hungary.....	4, 100	78, 000	4, 400	72, 000	100	1, 000		
Albania.....	100	2, 000						
Belgium.....	100	1, 000						
Bulgaria.....	29, 100	417, 000						
Denmark.....	300	3, 000						
France.....		1, 000						
Greece.....	900	15, 000						
United Kingdom.....	400	5, 000	100	3, 000				
Lithuania.....	400	6, 000						
Luxembourg.....	100	1, 000						
Netherlands.....	1, 900	14, 000						
Norway.....	200	2, 000	100	1, 000				
Turkey.....	3, 100	46, 000						
China.....	600	12, 000						
Canada.....	100	3, 000						
Others.....	100	4, 000	100	1, 000				
Total.....	143, 600	2, 176, 000	18, 100	341, 000	600	5, 000	200	4, 000

## CZECHOSLOVAKIA

Czechoslovakia has a well-developed belting industry producing and exporting all kinds and types of belting. The official trade statistics classify belting separately as oak-tanned leather, mineral-tanned leather, rubber and balata, cotton, flax, and hair. For convenience in treatment, the first two classes are combined in the statistics shown here, and the last three, of which hair belting is the most important class, are also combined.

Czechoslovakia's share of the total world belting trade was 0.6 per cent in 1920, had risen to 2.9 in 1923, and was 1.7 per cent in 1930. The following table shows total exports from 1920 through 1930, except for 1924, in which year a change in classification was made that renders detailed figures unavailable. The sharp decline in exports in 1922 was the result of currency stabilization and appreciation, which took place that year, and which temporarily increased prices sharply in the country and rendered export trade extremely difficult for the Czechoslovak manufacturers. That this was temporary is shown by the greatly increased exports in 1923, when the volume reached 780,000 pounds, over three times as great as the preceding year, as a result of expanding shipments of rubber and balata belting.

## INTERNATIONAL TRADE IN MACHINERY BELTING

## TOTAL EXPORTS OF BELTING FROM CZECHOSLOVAKIA

Year	Quantity		Value (crowns)	Year	Quantity		Value (crowns)
	Kilos	Pounds			Kilos	Pounds	
1920.....	86, 600	190, 866	11, 236, 800	1927.....	241, 600	532, 486	11, 013, 000
1921.....	166, 800	367, 627	32, 539, 400	1928.....	268, 300	591, 333	11, 800, 000
1922.....	112, 600	248, 170	7, 562, 590	1929.....	239, 300	527, 417	11, 640, 000
1923.....	353, 842	779, 867	13, 721, 766	1930.....	186, 500	411, 046	8, 486, 000
1925.....	272, 451	600, 452	8, 921, 857	1931.....	120, 500	265, 582	4, 226, 000
1926.....	204, 800	451, 379	9, 369, 000				

Exports of balata and rubber belting have increased until they are now the largest class of Czechoslovakia, and represent 1.8 per cent of the world total. Trade in leather belting has tripled since 1920, but that in cotton, flax, and hair belting has decreased since that year, except for the heavy sales of the year 1925. In the following table exports of belting from Czechoslovakia are shown, by classes, for 1920-1923, and 1925-1930; statistics for 1924 are not available.

## EXPORTS OF BELTING FROM CZECHOSLOVAKIA, BY CLASSES

Year	Leather		Balata and rubber		Cotton, flax, and hair	
	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Crowns	Kilos	Crowns	Kilos	Crowns
1920.....	23, 200	3, 576, 000	8, 700	1, 244, 100	51, 700	6, 416, 700
1921.....	68, 800	9, 068, 500	26, 800	3, 216, 000	71, 200	10, 254, 900
1922.....	24, 000	3, 170, 000	46, 700	2, 331, 540	41, 900	3, 061, 050
1923.....	61, 975	3, 135, 888	253, 967	9, 239, 986	37, 900	1, 345, 894
1925.....	42, 277	2, 722, 647	70, 850	3, 003, 068	159, 324	3, 196, 142
1926.....	51, 100	3, 047, 000	138, 000	5, 957, 000	15, 700	365, 000
1927.....	66, 200	4, 037, 000	151, 700	6, 397, 000	23, 700	579, 000
1928.....	79, 500	5, 354, 000	158, 700	5, 738, 000	30, 100	708, 000
1929.....	104, 000	6, 525, 000	121, 100	4, 689, 000	14, 200	426, 000
1930.....	76, 800	4, 645, 000	102, 200	3, 637, 000	7, 500	204, 000
1931.....	37, 000	1, 911, 000	79, 000	2, 126, 000	4, 500	189, 000

In the leather belting export trade in 1923 Austria, Germany, the United Kingdom, and Lithuania were the leading markets, in that order. By 1930 the trade had shifted to make Yugoslavia, Italy, Poland, and Germany the new leaders. Yugoslavia has yielded first place to Austria in the rubber belting field, and to British India in cotton, flax, and hair belting. The following tables show Czechoslovakia's trade in belting, by countries and classes, for 1925-1930.



## EXPORTS OF LEATHER BELTING FROM CZECHOSLOVAKIA, BY COUNTRIES

Country of destination	1925		1926		1927	
	Quantity	Value	Quantity	Value	Quantity	Value
Yugoslavia.....	<i>Kilos</i> 14, 871	<i>Crowns</i> 1, 072, 482	<i>Kilos</i> 31, 300	<i>Crowns</i> 3, 047, 000	<i>Kilos</i> 30, 000	<i>Crowns</i> 1, 856, 000
Bulgaria.....	9, 323	739, 233	4, 100	274, 000	2, 000	131, 000
Greece.....	5, 141	254, 503	1, 700	85, 000	4, 500	216, 000
Hungary.....	3, 017	87, 040	1, 000	46, 000	1, 000	57, 000
Poland.....	2, 495	143, 125	3, 600	223, 000	7, 500	467, 000
Rumania.....	1, 796	115, 334	2, 500	161, 000	3, 500	194, 000
Austria.....	1, 630	92, 295	1, 700	93, 000	6, 200	399, 000
Italy.....	1, 259	59, 055	600	35, 000	3, 000	192, 000
Germany.....	1, 102	64, 277	1, 500	96, 000	2, 600	167, 000
Turkey.....	458	23, 650	300	14, 000	200	8, 000
Denmark.....	446	31, 000				
Danzig.....	330	15, 500				
Latvia.....	243	14, 000	400	26, 000	400	23, 000
Haiti and Santo Domingo.....	85	6, 100				
Persia.....						
Union of Soviet Socialist Republics.....			900	43, 000	400	23, 000
Norway.....						
Lithuania.....			400	24, 000	1, 900	122, 000
Trieste.....			300	20, 000	400	20, 000
Egypt.....			200	9, 000	500	31, 000
Arabia.....			100	7, 000		
Estonia.....			100	6, 000		
United Kingdom.....			100	5, 000		
Sweden.....			100	5, 000		
Hamburg.....			100	3, 000		
Finland.....						
United States.....					1, 300	90, 000
British India.....					600	26, 000
Belgium.....					100	7, 000
Switzerland.....						
Argentina.....						
Colombia.....						
Chile.....						
Brazil.....						
Other.....	81	5, 053	100	1, 000	100	8, 000
Total.....	42, 277	2, 722, 647	51, 100	3, 047, 000	66, 200	4, 037, 000

Country of destination	1928		1929		1930	
	Quantity	Value	Quantity	Value	Quantity	Value
Yugoslavia.....	<i>Kilos</i> 22, 900	<i>Crowns</i> 1, 607, 000	<i>Kilos</i> 40, 400	<i>Crowns</i> 2, 548, 000	<i>Kilos</i> 40, 400	<i>Crowns</i> 2, 438, 000
Bulgaria.....	6, 400	439, 000	9, 500	525, 000	2, 200	122, 000
Greece.....	4, 100	221, 000	3, 700	195, 000	1, 600	83, 000
Hungary.....	8, 000	442, 000	1, 100	78, 000	300	22, 000
Poland.....			6, 400	424, 000	3, 900	242, 000
Rumania.....	1, 700	96, 000	800	52, 000	700	40, 000
Austria.....	11, 300	833, 000	1, 500	96, 000	1, 700	103, 000
Italy.....	7, 800	504, 000	28, 700	1, 835, 000	14, 300	947, 000
Germany.....	2, 300	156, 000	2, 500	171, 000	3, 000	164, 000
Turkey.....	200	16, 000	800	61, 000		
Denmark.....						
Danzig.....						
Latvia.....			1, 500	96, 000	1, 100	73, 000
Haiti and Santo Domingo.....						
Persia.....					300	21, 000
Union of Soviet Socialist Republics.....						
Norway.....					300	20, 000
Lithuania.....	600	47, 000	300	25, 000	500	29, 000
Trieste.....						
Egypt.....						
Arabia.....						
Estonia.....						
United Kingdom.....			100	11, 000	1, 400	96, 000
Sweden.....	400	17, 000	1, 400	88, 000	300	18, 000
Hamburg.....	1, 300	57, 000	1, 200	76, 000	600	34, 000
Finland.....	100	11, 000				
United States.....						
British India.....			200	15, 000	1, 400	33, 000
Belgium.....					1, 100	41, 000
Switzerland.....						
Argentina.....	2, 600	174, 000			500	30, 000
Colombia.....			1, 200	65, 000		
Chile.....	400	35, 000				
Brazil.....			300	18, 000	300	18, 000
Other.....	200	18, 000	700	43, 000	900	53, 000
Total.....	75, 900	5, 354, 000	104, 000	6, 525, 000	76, 800	4, 645, 000

## EXPORTS OF RUBBER AND BALATA BELTING FROM CZECHOSLOVAKIA

Country of destination	1925		1926		1927	
	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Crowns	Kilos	Crowns	Kilos	Crowns
Germany.....	10,643	416,986	37,800	1,658,000	44,800	1,917,000
Austria.....	9,035	455,189	27,300	1,102,000	14,400	626,000
Italy.....	8,037	330,526	14,400	582,000	8,600	361,000
United States.....						
Hungary.....	7,510	364,791	7,800	351,000	5,100	234,000
Sweden.....	6,026	245,179	900	40,000	1,000	44,000
United Kingdom.....	5,515	213,519	20,500	859,000	45,500	1,844,000
Denmark.....	5,453	219,541	17,000	761,000	3,300	141,000
Bulgaria.....	3,906	168,926	1,100	43,000	1,000	43,000
Finland.....	3,884	140,907	3,200	125,000	400	18,000
Brazil.....						
Estonia.....	3,213	132,814				
Portugal.....						
Rumania.....	2,989	105,997	4,500	212,000	4,800	193,000
Poland.....	1,278	56,730	900	68,000	4,100	170,000
Trieste.....						
Yugoslavia.....	1,077	57,159	1,200	60,000	2,000	95,000
Switzerland.....	601	24,255	100	4,000	300	13,000
Belgium.....	499	21,463	200	8,000		
France.....					600	18,000
Greece.....	453	18,174			30	1,000
Lithuania.....						
Turkey.....	295	11,926				
Netherlands.....	292	12,344	400	19,000	300	11,000
Palestine.....						
Latvia.....	126	6,094	500	23,000		
China.....						
Hamburg.....	18	520	900	38,000	15,500	665,000
Egypt.....			100	5,000		
Others.....						
Total.....	70,850	3,003,068	138,800	5,957,000	151,700	6,397,000

Country of destination	1928		1929		1930	
	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Crowns	Kilos	Crowns	Kilos	Crowns
Germany.....	40,800	1,718,000	39,200	1,506,000	13,100	443,000
Austria.....	9,900	408,000	31,600	1,207,000	34,200	1,304,000
Italy.....	5,200	222,000	4,400	175,000	400	14,000
United States.....					500	33,000
Hungary.....	2,300	110,000	2,700	121,000	1,900	88,000
Sweden.....	3,700	148,000	400	27,000	1,000	30,000
United Kingdom.....	36,500	1,473,000	9,300	346,000	3,900	135,000
Denmark.....	1,600	70,000	700	30,000	18,300	566,000
Bulgaria.....	2,500	110,000	4,600	182,000	900	29,000
Finland.....	1,000	43,000			1,500	45,000
Brazil.....					400	19,000
Estonia.....					400	12,000
Portugal.....					2,900	123,000
Rumania.....	1,500	75,000	4,900	196,000	700	50,000
Poland.....	2,000	71,000	4,100	171,000		
Trieste.....	500	21,000				
Yugoslavia.....	1,400	63,000	2,900	122,000	1,500	61,000
Switzerland.....					600	21,000
Belgium.....					7,000	240,000
France.....			4,300	134,000		
Greece.....					2,200	57,000
Lithuania.....						
Turkey.....						
Netherlands.....					300	11,000
Palestine.....						
Latvia.....					300	10,000
China.....					9,600	307,000
Hamburg.....	28,900	1,172,000	12,300	450,000		
Egypt.....					600	29,000
Others.....	900	34,000	700	22,000		
Total.....	158,700	5,738,000	121,100	4,689,000	102,200	3,637,000

## SWEDEN

Swedish exports of machinery belting are small but well diversified. They average about one-half of 1 per cent of the total world trade of this sort; having averaged about 65,000 kilos annually before the war, dropped to half of that in 1919, rose to over 90,000 in 1923, and are now slightly above the pre-war level, as the accompanying table shows.

TOTAL EXPORTS OF BELTING FROM SWEDEN

Year	Quantity		Value (crowns)	Year	Quantity		Value (crowns)
	Kilos	Pounds			Kilos	Pounds	
1912.....	62,462	137,670	206,890	1924.....	74,298	163,752	369,451
1913.....	68,739	151,500	248,577	1925.....	70,868	156,193	340,511
1919.....	33,684	74,239	384,212	1926.....	47,015	103,621	257,345
1920.....	41,728	91,968	588,630	1927.....	58,684	129,339	263,419
1921.....	50,066	110,345	418,041	1928.....	65,621	144,628	289,738
1922.....	71,190	156,902	422,084	1929.....	71,273	157,085	327,679
1923.....	94,031	207,244	505,586	1930.....	79,919	176,141	347,334

Swedish exports of rubber and balata belting have doubled since before the war, but the volume of the other classes is now at about the 1912 level. The following table shows the volume of the export trade for 1912, 1913, and 1919 through 1930. Rubber belting is the most important among the classes exported, amounting to about one-half of the total in recent years.

EXPORTS OF BELTING FROM SWEDEN, BY CLASSES

Year	Rubber		Cotton		Hair		Leather	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Crowns	Kilos	Crowns	Kilos	Crowns	Kilos	Crowns
1912.....	21,743	76,101	36,718	110,154	342	1,026	3,661	19,609
1913.....	21,872	76,552	37,206	120,920	2,495	8,109	7,166	42,996
1919.....	9,374	111,453	22,298	234,297	1,239	20,737	7,773	17,925
1920.....	12,079	141,227	19,460	216,087	5,331	70,250	4,858	119,338
1921.....	28,464	221,836	12,378	97,646	7,529	76,134	1,695	22,425
1922.....	40,827	250,645	18,717	84,897	8,267	48,303	3,379	38,034
1923.....	53,880	301,932	21,368	90,549	15,379	81,865	3,395	31,240
1924.....	45,257	194,906	12,196	55,879	5,786	32,436	11,059	86,230
1925.....	47,710	220,333	17,253	74,085	3,196	19,544	2,709	26,549
1926.....	25,220	144,368	15,293	60,280	3,781	21,715	2,721	30,982
1927.....	28,678	133,965	24,512	78,585	2,408	12,859	3,088	38,010
1928.....	31,348	150,403	25,308	88,667	7,743	40,442	1,222	10,226
1929.....	36,515	171,849	25,178	87,949	6,985	43,085	2,595	24,796
1930.....	40,957	186,072	34,746	123,437	1,200	12,974	3,016	24,851

Swedish export trade in belting is principally with Scandinavian and Baltic countries, there being few shipments of importance to countries outside of Europe and the Mediterranean area. Norway is now the largest market for Swedish rubber belting, having displaced Denmark which held that place in 1922. Finland is the chief destination for cotton belting; Norway takes the greatest share of hair belting; and Egypt has pushed Russia from the rank of largest consumer of leather belting. The destinations of exports in 1922 and 1929 are shown in the following tables.

## EXPORTS OF BELTING FROM SWEDEN, BY COUNTRIES AND CLASSES

Country of destination	1929							
	Rubber		Cotton		Hair		Leather	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Kilos	Crowns	Kilos	Crowns	Kilos	Crowns	Kilos	Crowns
Norway.....	13, 636	63, 002	5, 283	19, 539	1, 918	11, 312	( <sup>1</sup> )	( <sup>1</sup> )
Denmark.....	7, 623	27, 126	1, 580	5, 771				
Finland.....	3, 211	16, 947	6, 879	24, 593	1, 340	7, 624	862	10, 348
Latvia.....	5, 980	23, 862					280	2, 234
Lithuania.....					1, 396	7, 413		
Russia.....			3, 960	14, 341				
Germany.....	1, 096	8, 258						
Poland.....					1, 285	9, 278		
United Kingdom.....	825	3, 600						
Spain.....	500	4, 555	575	3, 020				
Switzerland.....	1, 349	8, 200						
Netherlands.....			6, 195	17, 572				
Austria.....	620	4, 139						
Egypt.....							1, 060	9, 110
Erazil.....	216	2, 250						
Other.....	1, 454	9, 910	706	3, 063	1, 046	7, 458	393	3, 104
Total.....	36, 515	171, 849	25, 178	87, 949	6, 985	43, 085	2, 595	24, 796
	1922							
Norway.....	5, 711	36, 013	3, 290	13, 882	745	4, 119	( <sup>1</sup> )	( <sup>1</sup> )
Denmark.....	26, 997	161, 015	1, 323	5, 977	519	2, 212	( <sup>1</sup> )	( <sup>1</sup> )
Finland.....	2, 735	21, 306	3, 332	16, 005	2, 942	20, 161	288	3, 678
Estonia.....	1, 876	12, 245	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Russia.....	( <sup>1</sup> )	( <sup>1</sup> )	3, 496	11, 935	2, 912	16, 030	2, 991	32, 637
Latvia.....	2, 376	13, 968	951	4, 674	933	4, 300	( <sup>1</sup> )	( <sup>1</sup> )
Netherlands.....	960	5, 160	6, 141	30, 765	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other countries.....	172	1, 078	184	1, 659	216	1, 486	100	1, 719
Total.....	40, 827	250, 845	18, 717	84, 897	8, 267	43, 308	3, 379	38, 034

<sup>1</sup> Included in "Other countries."

## NORWAY

Though Norway has a relatively small export trade in belting, averaging about 1 per cent of the world total trade in this commodity, the balata belting, which is the class most produced in the country, has an excellent reputation for quality. Norwegian balata and rubber belting has had an established position in several markets for many years, both as transmission and conveyer types. Leather belting is also manufactured in Norway, but the amount exported is not large. While not likely to become an important competitive factor in world trade, Norwegian competition in balata belting amounts to about 2.5 per cent of the world total, and is a factor to be reckoned with in the Scandinavian and Baltic States. Before the World War total belting exports averaged about 170,000 kilos. The readjustments following the war brought this down sharply, and it was not until 1927 that the level was again reached, as the following table shows.

## TOTAL EXPORTS OF BELTING FROM NORWAY

Year	Quantity		Value (crowns)	Year	Quantity		Value (crowns)
	Kilos	Pounds			Kilos	Pounds	
1912.....	168,800	372,035	506,400	1924.....	118,980	262,231	1,585,620
1913.....	172,704	380,639	518,100	1925.....	152,880	336,947	1,736,482
1919.....	40,760	89,835	611,400	1926.....	155,947	343,707	1,370,149
1920.....	101,251	223,157	1,721,300	1927.....	194,456	428,581	1,396,767
1921.....	37,007	81,563	481,100	1928.....	178,314	393,004	1,207,315
1922.....	76,676	168,993	924,070	1929.....	220,011	484,904	1,492,777
1923.....	111,348	245,410	1,264,865	1930.....	129,136	284,615	844,881

Leather belting exports from Norway were first officially reported in 1922, but never reached any great size, and since 1924 have declined to a fractional percentage of those in rubber and balata. The following table shows exports of leather, as well as rubber and balata, belting from Norway, for 1912, 1913, and 1919 through 1930.

## EXPORTS OF BELTING FROM NORWAY, BY CLASSES

Year	Balata and rubber		Leather		Year	Balata and rubber		Leather	
	Quantity	Value	Quantity	Value		Quantity	Value	Quantity	Value
1912.....	Kilos 168,800	Crowns 506,400	Kilos	Crowns	1924.....	Kilos 113,359	Crowns 1,516,700	Kilos 5,621	Crowns 68,920
1913.....	172,704	518,100	-----	-----	1925.....	150,854	1,707,060	2,035	29,402
1919.....	40,760	611,400	-----	-----	1926.....	155,576	1,365,250	371	4,899
1920.....	101,251	1,721,300	-----	-----	1927.....	194,137	1,392,910	319	3,857
1921.....	37,007	481,100	-----	-----	1928.....	177,822	1,200,819	492	6,496
1922.....	72,306	861,253	4,370	62,817	1929.....	219,284	1,484,212	727	8,565
1923.....	108,775	1,231,528	2,573	33,337	1930.....	128,729	839,092	407	5,789

Great Britain is the largest purchaser of Norwegian rubber and balata belting, followed by Sweden, Austria, and Denmark, in that order. This trade is well established, and its destinations have changed little in the past 10 years. Sweden dominates the small leather belting trade, with Iceland and Finland following. The tables following show the exports of rubber and balata belting from Norway, by classes, for 1922 and 1930, and of leather belting for 1930.

## EXPORTS OF RUBBER AND BALATA BELTING FROM NORWAY, BY COUNTRIES

Country	1922	1930	Country	1922	1930
Sweden:					
By land.....	Kilos 17,500	Kilos 30,757	Latvia.....	Kilos 2,100	Kilos -----
By sea.....	-----	4,034	Italy.....	-----	3,212
Denmark.....	8,500	12,623	Austria.....	10,300	26,850
Iceland.....	-----	1,142	Brazil.....	-----	5,197
Lithuania.....	6,800	4,306	Other South America.....	-----	1,888
Russia.....	8,500	-----	Other.....	560	2,704
Netherlands.....	-----	1,268			
Great Britain.....	18,100	34,748	Total.....	72,306	128,729

## EXPORTS OF LEATHER BELTING FROM NORWAY

Country	1930	Country	1930
	<i>Kilos</i>		<i>Kilos</i>
Sweden.....	186	Other.....	27
Iceland.....	75		
Finland.....	72	Total.....	407
Great Britain.....	47		

## DENMARK

Denmark is of much greater importance as a market for machinery belting than as a competitor in the export trade. Limited amounts of leather, balata, and hair belting are, however, exported from the country to near-by European markets, amounting in all to about 0.2 per cent of world belting trade. The statistics covering these exports are definite only for leather belting; the other classes being reported under general classifications, but making up the majority of exports under their respective headings. The following table shows the officially reported annual volume of domestic exports from 1919 through 1930.

## TOTAL EXPORTS OF BELTING FROM DENMARK

Year	Quantity		Year	Quantity	
	<i>Kilos</i>	<i>Pounds</i>		<i>Kilos</i>	<i>Pounds</i>
1919.....	16, 100	35, 484	1925.....	32, 100	70, 748
1920.....	35, 300	77, 801	1926.....	20, 600	45, 402
1921.....	11, 600	25, 566	1927.....	40, 500	89, 262
1922.....	28, 600	63, 034	1928.....	25, 800	56, 863
1923.....	26, 700	58, 846	1929.....	19, 500	42, 978
1924.....	21, 800	48, 047	1930.....	24, 700	54, 438

Except for 1920, when unusually heavy shipments of leather belting from Denmark occurred, balata and rubber belting is the most important class exported, amounting in 1930 to two-thirds of the total shipments. The following table shows exports of belting from Denmark, by classes, for the years 1919-1930.

## EXPORTS OF BELTING FROM DENMARK, BY CLASSES, 1919-1930

Year	Leather	Balata, etc.	Hair	Year	Leather	Balata, etc.	Hair
	<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>		<i>Kilos</i>	<i>Kilos</i>	<i>Kilos</i>
1919.....	5, 400	6, 400	4, 300	1925.....	1, 600	30, 500	-----
1920.....	25, 000	6, 000	4, 300	1926.....	-----	20, 600	-----
1921.....	4, 700	6, 000	900	1927.....	-----	40, 500	-----
1922.....	6, 000	21, 600	1, 000	1928.....	200	24, 400	1, 200
1923.....	2, 500	20, 700	3, 500	1929.....	600	18, 700	-----
1924.....	1, 800	19, 200	800	1930.....	8, 900	15, 800	-----

Germany is the largest consumer of Danish rubber and balata belting, followed in 1930 by Spain; these two countries taking more than 80 per cent of the total. As is to be expected, shipments are largely to Scandinavian and entirely to European countries, as is shown by the following table, covering 1923 and 1930.

## DANISH EXPORTS OF BELTING, BY CLASSES AND COUNTRIES

Country of destination	1923			
	Leather		Balata, etc.	
	Kilos	Kilos	Kilos	Kilos
Norway.....	400	1, 200		300
Sweden.....	500	(1)		1, 600
Finland.....	300	(1)		(1)
Switzerland.....	600	(1)		(1)
Germany.....	(1)	2, 500		(1)
Netherlands.....	(1)	1, 100		(1)
Spain.....	(1)	10, 200		(1)
Austria.....	(1)	3, 700		(1)
United Kingdom.....	(1)	(1)		1, 200
Other.....	500	2, 000		400
Total.....	2, 500	20, 700		3, 500

Country of destination	1930			
	Rubber and balata		Leather	
	Quantity	Value	Quantity	Value
	Kilos	Crowns	Kilos	Crowns
Germany.....	8, 100	35, 000		
Norway.....	700	3, 000		
Sweden.....	300	1, 000	8, 600	50, 000
Iceland.....	100	1, 000	100	1, 000
Poland and Danzig.....	500	3, 000		
Spain.....	5, 500	33, 000		
Switzerland.....		1, 000		
Czechoslovakia.....	100	1, 000		
Austria.....	100	1, 000		
Yugoslavia.....	300	1, 000		
Faroe Islands.....	100	1, 000		
Estonia.....			100	1, 000
Total.....	15, 800	81, 000	8, 800	52, 000

Included with other countries.

## JAPAN

Until 1921 leather belting was the only class reported in Japanese official export statistics; since 1921 woven beltings have also been reported. These two classes, however, are shown in combinations with hose made of the same materials, and, therefore, no accurate statistics covering belting alone are available. The trade is not extensive, and is confined to Far Eastern markets. The present volume of exports is about four times the pre-war figure and about equals the 1921 level. There was a sharp drop in the trade in 1923, 1924, and 1925, partly due to the disturbance in Japanese trade following the earthquake disaster. Japanese-made belting is not a leading competitor in the trade of any of the Far Eastern markets except possibly Japan itself.

## TOTAL EXPORTS OF BELTING FROM JAPAN

Year	Quantity		Value (yen)	Year	Quantity		Value (yen)
	Kilos	Pounds			Kilos	Pounds	
1912.....	42, 068	92, 717	104, 447	1924.....	117, 927	259, 911	602, 831
1913.....	23, 373	51, 514	76, 425	1925.....	93, 608	206, 312	542, 605
1919.....	82, 273	181, 329	529, 337	1926.....	139, 653	307, 795	694, 628
1920.....	57, 687	127, 142	416, 752	1927.....	131, 456	289, 729	467, 295
1921.....	170, 958	376, 791	608, 287	1928.....	193, 777	427, 084	644, 744
1922.....	132, 863	292, 830	648, 616	1929.....	254, 816	551, 614	755, 850
1923.....	108, 232	238, 543	515, 427	1930.....	171, 660	378, 338	586, 000

Japanese exports of leather belts and hose have recovered from the earthquake period, and gone on to new high levels, but those of woven belting and hose, while above the postwar low, slipped back in 1930 to less than the 1921 figures. Exports of belting from Japan are reported by weight in units of kins; for convenience in reference the weights are here stated in kilos, the kin being equal to six-tenths of a kilo. It is probable that leather belting constitutes about 80 per cent of the total shown under "leather belts and hose for machinery," and that woven belting makes up about 80 per cent of the exports shown under "woven belting and hose for machinery." The statistics shown in the table are for calendar years.

## EXPORTS OF BELTING FROM JAPAN, BY CLASSES

Year	Leather belts and hose		Woven belting and hose		Year	Leather belts and hose		Woven belting and hose	
	Quantity	Value	Quantity	Value		Quantity	Value	Quantity	Value
1912.....	<i>Kilos</i> 42,068	<i>Yen</i> 104,447	<i>Kilos</i> ( <sup>1</sup> )	<i>Yen</i> ( <sup>1</sup> )	1924.....	<i>Kilos</i> 65,200	<i>Yen</i> 394,904	<i>Kilos</i> 52,727	<i>Yen</i> 207,927
1913.....	23,373	76,425	( <sup>1</sup> )	( <sup>1</sup> )	1925.....	51,769	329,220	41,839	213,385
1919.....	82,275	529,337	( <sup>1</sup> )	( <sup>1</sup> )	1926.....	86,335	487,724	53,318	206,904
1920.....	57,687	416,752	( <sup>1</sup> )	( <sup>1</sup> )	1927.....	62,690	288,146	68,766	179,149
1921.....	61,036	352,033	109,922	256,224	1928.....	91,222	394,855	102,555	249,889
1922.....	61,621	387,931	71,242	260,685	1929.....	121,096	460,985	133,720	294,865
1923.....	46,672	288,571	61,560	226,856	1930.....	84,600	358,000	87,060	228,000

<sup>1</sup> Not available.

In 1930 China took the largest share of Japanese leather belting exports, with British India, Asiatic Russia, and Kwantung Province following in that order. These four are also the chief purchasers of Japanese woven belting and hose, but Kwantung leads, China is next, then Russia and British India. The following tables show exports, by countries, for 1921 and 1930.

## JAPANESE EXPORTS OF BELTING, BY COUNTRIES AND CLASSES, 1921

Country of destination	Leather belts, belting, and hose for machinery		Woven belting for machinery and woven hose	
	Quantity	Value	Quantity	Value
China.....	<i>Kilos</i> 33,960	<i>Yen</i> 210,000	<i>Kilos</i> 31,380	<i>Yen</i> 75,000
Kwantung.....	21,720	99,000	45,480	101,000
Hong Kong.....			8,340	20,000
British India.....	720	4,000	7,500	20,000
Straits Settlements.....	180	1,000	7,020	15,000
Asiatic Russia.....	540	3,000	8,100	15,000
Philippine Islands.....			1,140	2,000
Other countries.....	916	10,063	962	4,224
Total.....	61,036	352,063	109,922	256,224



## EXPORTS OF LEATHER BELTING FROM JAPAN, BY COUNTRIES, 1930

Country of destination	Quantity	Value	Country of destination	Quantity	Value
	<i>Kilos</i>	<i>Yen</i>		<i>Kilos</i>	<i>Yen</i>
China.....	40,900	215,000	British Borneo.....	60	
Kwantung.....	15,100	63,000	Asiatic Russia.....	2,040	8,000
Hong Kong.....	100		Philippine Islands.....	60	
British India.....	26,280	69,000	Total.....	84,600	355,000
Straits Settlements.....	60				

## EXPORTS OF WOVEN BELTING AND HOSE FROM JAPAN, BY COUNTRIES, 1930

Country of destination	Quantity	Value	Country of destination	Quantity	Value
	<i>Kilos</i>	<i>Yen</i>		<i>Kilos</i>	<i>Yen</i>
China.....	16,920	46,000	Asiatic Russia.....	9,420	26,000
Kwantung.....	52,200	130,000	Philippine Islands.....	500	
Hong Kong.....	400	1,000	France.....	500	1,000
British India.....	5,700	17,000	Total.....	86,900	223,000
Straits Settlements.....	960	2,000			
British Borneo.....	300				

Japan's share of the total world trade in belting is small, but growing. In 1920 it amounted to 0.4 per cent, in 1925 to 0.8, and in 1930 to 1.6 per cent. In world leather belting trade, its percentage has increased from 1.5 to 3.1 per cent over the same period, and in woven belting, also, its share has more than doubled.

## AUSTRALIA

Australian manufacturers produce belting in considerable quantities, and, since 1921, a fair amount has been exported to New Zealand and various parts of Oceania. In 1920 it had 1.1 per cent of the total world belting trade, but at present it is only about 0.4 per cent; in the former year it sent 332,798 pounds of belting abroad, in 1930 only 91,093. The following table shows the total trade in 1912, 1913, and 1919-1930.

## TOTAL EXPORTS OF BELTING FROM AUSTRALIA

Year	Quantity <sup>1</sup>	Value	Year	Quantity <sup>1</sup>	Value
	<i>Pounds</i>			<i>Pounds</i>	
1912.....	23,483	£3,115	1924.....	129,792	£19,491
1913.....	39,456	5,238	1925.....	106,401	14,793
1919.....	379,398	50,365	1926.....	142,042	11,785
1920.....	332,798	44,179	1927.....	95,137	13,373
1921.....	322,060	40,906	1928.....	86,056	11,424
1922.....	81,437	12,202	1929.....	118,495	15,530
1923.....	67,924	9,348	1930.....	91,093	11,642

<sup>1</sup> Estimated.

Leather belting makes up the bulk of this trade, but composition belting, largely rubber, has grown from an export value of £573 in 1920 to £2,990 in 1930. An examination of the table of exports shows that the Australian industry was shipping a fairly important quantity of leather belting overseas just after the war, but that the trade has fallen off sharply since that time. From providing 2.8 per cent of the world leather belting trade in 1920, Australia's share fell to 1.1 per cent in 1930.

## INTERNATIONAL TRADE IN MACHINERY BELTING

## VALUE OF EXPORTS OF BELTING FROM AUSTRALIA, BY CLASSES

Year	Leather	Compo- sition	Year	Leather	Compo- sition
1912.....	£2,869	£246	1924.....	16,371	£3,120
1913.....	5,158	80	1925.....	9,706	5,087
1919.....	49,659	706	1926.....	7,283	4,502
1920.....	43,666	513	1927.....	11,792	1,581
1921.....	38,413	2,433	1928.....	8,312	3,112
1922.....	12,010	192	1929.....	11,707	3,823
1923.....	8,902	446	1930.....	8,652	2,990

Netherland India, New Zealand, and the Fiji Islands took the bulk of Australian exports of leather belting in 1920. By 1930 the trade with Netherland India had dwindled almost to extinction and New Zealand and the Fiji Islands, although the leading purchasers, were taking only half of their earlier amounts. The same trend is visible in the exports of composition belting which, although somewhat more diversified in destination, also center on these two countries.

## VALUE OF EXPORTS OF BELTING FROM AUSTRALIA, BY COUNTRIES

Country of destination	Value			
	1920-21		1930	
	Leather	Composi- tion	Leather	Composi- tion
United Kingdom.....			£238	£274
British Malaya.....			975	
New Zealand.....	£6,100	£657	3,256	973
Fiji Islands.....	6,020	668	2,804	336
Nauru.....	964		626	
New Guinea.....			507	329
Other Islands, British.....	1,371	95	10	200
Papua.....	231	67	134	304
Other British countries.....			55	228
Netherland India.....	8,884	15,344	17	
New Caledonia.....	930	293		300
Other Islands.....	2			38
United States.....				8
Hong Kong.....	4,173			
India and Ceylon.....	4,278			
Union of South Africa.....	1,821	1,492		
Straits Settlements.....	3,061	1,151		
China.....	1,050			
French Indo-China.....	294			
Other countries.....	292	2,358		
Total.....	39,471	6,781	8,622	2,990

## INTERNATIONAL COMPETITION IN BELTING TRADE

A comparison of the belting trade of various countries is possible only on the basis of weight of belting exports. Statistics of value are not available for all countries and for certain countries the published figures are not the invoice values. The fluctuations of currency of many countries, particularly European, renders impossible any comparison of the trade of these countries over a period of years on the basis of value. Since the conversion of values in foreign currency to United States dollars would be of little benefit, statistics of value for foreign currency have been given in the appropriate local currency of each country. Official statistics on a basis of weight are available for almost all countries but not for all years. The accompanying table shows the total estimated weight, in pounds, of belting exports for each country treated in the foregoing section (except Italy in 1930), for the years 1920 through 1930, the last year for which figures are available.

The table shows that international trade in belting has been remarkably steady in point of total volume, averaging 27,416,000 pounds annually from 1923-1930, inclusive. From 1926 to 1929, the annual increase averaged 967,000 pounds. The statistics show that the trade reacts very severely in depression periods, which is most natural since the belting market depends upon industrial activity. Inasmuch as international shipments have remained relatively stable, it would appear likely that the real growth, in the belting trade the world over, has been supplied by small belting manufacturing industries located in countries which as yet have not engaged in exporting the material, merely supplying it to domestic users.

### TOTAL WORLD EXPORTS OF MACHINERY BELTING, BY COUNTRIES, 1920-1930

[Weight in pounds]

Exporting country	1920	1921	1922	1923	1924
United States.....	6,719,078	3,178,535	3,682,308	4,984,323	5,067,622
Canada.....	100,069	96,050	329,120	569,018	726,569
United Kingdom.....	16,474,856	7,678,160	9,189,824	10,827,264	10,486,894
Germany.....	624,800	1,556,500	3,020,600	3,409,120	3,079,340
France.....	2,692,582	1,958,606	1,763,200	2,266,373	3,039,316
Belgium.....	1,022,489	574,774	816,516	1,339,351	1,220,637
Netherlands.....	353,711	223,763	293,132	341,620	383,496
Italy.....	181,609	220,620	156,924	226,350	130,256
Switzerland.....	230,318	90,584	117,914	147,447	141,717
Austria.....	258,088	479,370	727,099	813,276	416,776
Czechoslovakia.....	190,866	367,627	248,170	779,867	(1)
Sweden.....	91,968	110,345	156,902	207,244	163,752
Norway.....	223,157	81,563	168,993	245,410	262,231
Denmark.....	77,801	25,566	63,034	58,846	48,047
Japan.....	127,142	376,791	292,830	238,543	259,911
Australia.....	332,798	322,060	81,437	67,924	129,792
Total.....	29,701,332	17,340,914	21,108,003	26,521,976	25,556,356

<sup>1</sup> Not available.

TOTAL WORLD EXPORTS OF MACHINERY BELTING, BY COUNTRIES, 1920-1930—  
Continued

[Weight in pounds]

Exporting country	1925	1926	1927	1928	1929	1930
United States.....	5,897,989	6,069,717	6,773,770	6,615,889	7,388,443	5,459,408
Canada.....	1,261,869	1,149,971	1,227,417	1,233,031	1,493,084	1,381,051
United Kingdom.....	10,057,712	9,920,288	9,625,392	10,146,080	10,512,208	7,705,488
Germany.....	3,275,140	3,320,020	3,462,925	3,373,882	3,687,512	2,942,340
France.....	2,716,341	3,571,097	2,942,458	3,258,040	4,005,291	3,542,555
Belgium.....	1,433,960	1,576,520	1,633,280	1,670,900	1,691,140	1,098,020
Netherlands.....	468,949	502,011	575,043	591,688	564,957	485,404
Italy.....	211,143	159,569	195,935	114,608	134,223	94,331
Switzerland.....	129,735	177,438	180,084	265,637	433,513	284,803
Austria.....	298,642	234,726	217,534	274,618	358,150	248,390
Czechoslovakia.....	600,482	451,379	532,486	591,333	527,417	411,046
Sweden.....	156,193	103,621	129,339	144,628	157,085	176,141
Norway.....	336,947	343,707	428,581	393,004	484,904	284,615
Denmark.....	70,748	45,402	89,262	56,843	42,978	54,438
Japan.....	206,312	307,795	289,729	427,084	561,614	378,338
Australia.....	106,401	142,042	98,137	86,056	118,495	91,093
Total.....	27,228,563	28,075,303	28,401,372	29,243,341	32,181,014	24,637,461

The United Kingdom is still the leading exporter of machinery belting, although its share of the trade has been decreasing during the past 10 years. In 1920 it sent abroad almost 55 per cent of the world's exports of belting. By 1922 this had fallen to 43 per cent, in 1924, 40; in 1926, 35; in 1928, 35; and in 1930 to 32 per cent.

The United States holds second place, its share of the total trade having remained very steady over the last 10 years. In 1920 we had 23.7 per cent of world belting exports, in 1925, 21.7, and in 1930, 22.7 per cent.

France, in third position, has gained in strength in the belting markets of the world. Producing only 9 per cent of the total in 1920, it had increased that to 10 per cent by 1925, and 12.8 per cent in 1930. The French exports of rubber belting included in these figures are estimated, and perhaps not accurately.

In the 10 years under consideration Germany has increased its share of world trade to more than six times its former figure, or from 2 to 12.2 per cent. This gain was made in 1921 and in 1922, when German exports of belting increased to 14.1 per cent of the world total, due in part to the change in the value of German currency. Since then its share has remained at about 12 per cent.

Canada's belting exports have shown the most rapid rate of increase of those of any country during the period under review. Amounting to 0.1 per cent of the world total in 1920 they increased fourfold the next year, more than three times in 1922 over the year before, nearly doubled by 1924, and nearly doubled again by 1930. This total, 5.7 per cent of the total trade, means that Canada has risen from sixteenth to fifth among belt exporting countries, but must really be viewed as an extension of the United States belting industry, which has sought the benefits of manufacture within the British Empire. The more recent years indicate that Canadian exports have become fairly well stabilized at less than 1,500,000 pounds.

The belting trade of Belgium remains small, but well maintained, and has been larger than that of Canada for every year except 1930. Amounting to 3.4 per cent of the world total in 1920 it rose to 5.8 in 1926 and 1928, but fell off in 1930 to 4.6 per cent.

The Netherlands was the only other country furnishing 2 per cent or more of the world total of belting exports in 1930, but most of the other small producers have increased their percentages fractionally. Australia's shipments, however, are now less than one-third of the 1920 totals.

In order to picture the competition among the various countries, a chart is shown covering the total belting exports from each competing country of importance during the years 1920 through 1930.

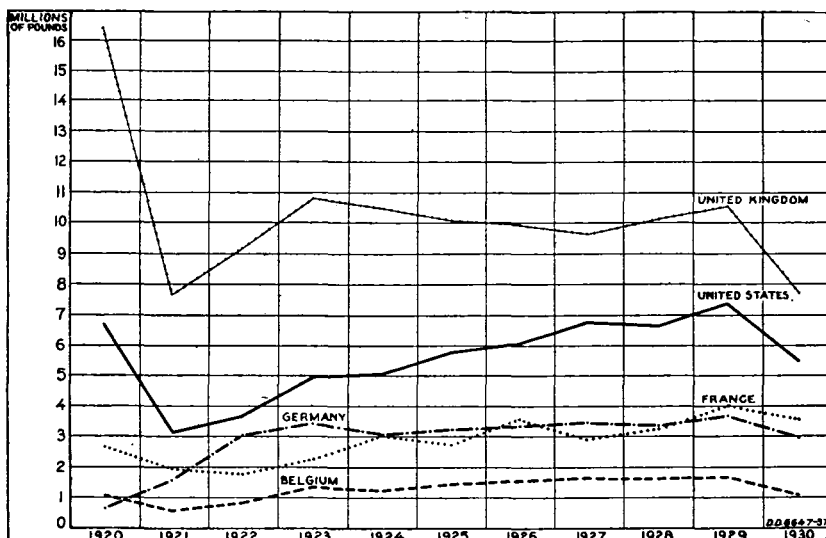


Figure 1.—Total world exports of machinery belting by countries, 1920-1930

Figures are in millions of pounds of weight and are plotted in the middle of each year.

The accompanying table shows the percentage of total world belting exports supplied by various producing countries yearly from 1920 through 1930.

PERCENTAGE OF TOTAL WORLD BELTING EXPORTS SUPPLIED BY VARIOUS PRODUCING COUNTRIES YEARLY, 1920-1930

[Based on weight]

Country	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
United States.....	23.7	18.1	18.4	18.8	19.3	21.7	22.2	23.8	22.6	24.5	22.7
Canada.....	.1	.4	1.5	2.1	2.8	4.6	4.2	4.3	4.2	4.9	5.7
United Kingdom.....	54.9	42.1	43.1	40.8	39.9	36.9	34.9	33.9	34.8	32.9	32.0
Germany.....	2.0	8.5	14.1	12.8	11.8	12.0	12.1	12.2	11.5	12.6	12.2
France.....	9.0	10.7	8.2	8.5	11.7	10.0	11.8	10.5	11.2	8.7	12.8
Belgium.....	3.4	3.5	3.8	5.1	4.7	5.3	5.8	5.7	5.8	5.7	4.6
Netherlands.....	1.2	1.3	1.4	1.3	1.5	1.6	1.8	2.0	2.0	1.9	2.0
Italy.....	.6	1.2	.7	.8	.5	.8	.6	.7	.3	.4	(1)
Switzerland.....	.8	4.2	.5	.7	.5	.5	.6	.6	.9	.5	1.2
Austria.....	.9	2.7	3.3	3.0	1.7	1.1	.9	.8	.9	1.5	1.0
Czechoslovakia.....	.6	2.3	1.3	2.9	2.7	2.2	1.7	1.9	2.0	1.8	1.7
Sweden.....	.3	.6	.8	.8	.6	.6	.4	.5	.5	.5	.7
Norway.....	.7	.5	.9	.9	1.0	1.2	1.3	1.5	1.3	1.7	1.2
Denmark.....	.3	.1	.2	.3	.2	.3	.2	.3	.2	.1	.2
Japan.....	.4	2.1	1.4	.9	.9	.8	1.1	1.0	1.5	1.9	1.6
Australia.....	1.1	1.7	.4	.3	.2	.4	.4	.3	.3	.4	.4
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

<sup>1</sup> Not available.

## RUBBER AND BALATA BELTING

America is the principal source of rubber belting exports, the United States occupying the position of leadership in this trade; a fact which, coupled with the growing shipments from Canadian factories by United States firms, shows that American-made rubber belting is maintaining the strong position in the trade first gained in 1921, despite the steady world-wide competition from British firms, the advances made by Germany and France, and the competition in Europe from Norwegian, Czechoslovak, and Swedish exporters. The accompanying table shows the world exports of rubber and balata belting by countries from 1920 to 1930.

Whereas the total trade in belting of all classes was fairly stable, and in 1929 barely exceeded the 1920 previous peak total, exports of rubber and balata belting combined have shown a tendency to increase. British statistics, and the United States and Canadian statistics, show clearly that the increase has been in rubber belting; balata belting exports from United Kingdom (which leads in this class) have actually declined. It follows that rubber belting is now far stronger in international trade than it was 10 years ago, or even 5 years ago. The increased participation of rubber belting is principally to be accredited to American companies, shipping from factories in the United States, Canada, and England; their success can only be the result of adaptability and utility of rubber belting in competition with other classes of belting, and to the constantly lower price of raw materials used largely in the manufacture of rubber belting, coupled with aggressive salesmanship.

## WORLD EXPORTS OF RUBBER AND BALATA BELTING BY COUNTRIES, 1920-1930

[In pounds]

Country	1920	1921	1922	1923	1924
United States.....	3,900,000	2,300,000	2,500,000	3,548,468	3,572,255
Canada.....	29,902	65,459	320,642	550,062	702,198
United Kingdom.....	5,015,584	1,891,120	2,372,496	2,650,256	2,659,216
Germany.....	110,000	330,000	642,400	849,640	526,460
France.....	932,027	749,330	500,313	684,342	962,046
Belgium.....	1,255,622	1,143,693	1,204,129	1,334,837	1,307,659
Italy.....		4,408	30,194	65,238	21,599
Austria.....	23,142	24,464	26,227	15,648	5,950
Czechoslovakia.....	19,174	59,067	102,926	559,743	
Sweden.....	26,622	62,734	89,982	118,771	99,746
Norway.....	223,157	81,563	159,362	239,740	249,843
Denmark.....	13,224	13,224	47,606	45,622	42,316
Australia <sup>1</sup> .....	1,013	5,169	457	1,424	7,426
Total.....	10,549,467	5,731,331	7,336,734	9,663,791	9,155,714

Country	1925	1926	1927	1928	1929	1930
United States.....	4,078,651	4,173,363	5,010,592	4,887,206	5,670,159	4,297,789
Canada.....	1,213,284	1,149,222	1,226,609	1,225,294	1,471,651	1,374,222
United Kingdom.....	2,881,088	3,011,568	2,539,040	3,164,896	3,561,488	3,073,728
Germany.....	701,360	727,540	973,727	1,030,590	1,204,927	1,229,612
France.....	919,641	1,078,373	1,121,483	1,364,364	1,891,876	1,251,254
Belgium.....	339,639	331,481	254,562	303,931	315,172	349,774
Italy.....	50,030	41,655	47,165	30,856	62,593	7,052
Switzerland.....	661	57,304	7,493	63,695	223,044	127,391
Austria.....	7,714	1,102	39,010	39,892	39,892	35,925
Czechoslovakia.....	156,153	304,152	334,346	349,774	226,904	225,524
Sweden.....	105,152	55,584	63,206	69,090	80,479	90,269
Norway.....	332,482	342,889	427,877	391,919	483,301	283,718
Denmark.....	67,222	45,402	89,262	53,777	41,214	34,823
Australia <sup>2</sup> .....	13,240	11,790	4,148	8,166	10,032	7,846
Total.....	10,866,317	11,331,455	12,138,520	12,983,450	15,282,732	12,388,927

<sup>1</sup> Estimated on basis of percentage of total Belgian exports supplied by rubber from 1925 to 1930.<sup>2</sup> Estimated on basis of 54 cents per pound.

In 1930 the United States shipped 4,297,789 pounds of rubber and balata belting abroad, compared with 4,078,651 pounds in 1925 and 3,900,000 in 1920. However, due to the general increase in world trade in this commodity our national share of similar world exports decreased during this period from 37.1 to 34.6 per cent.

Great Britain is the principal competitor of the United States in the trade in this class of belting, but its shipments have declined from 4,015,584 pounds in 1920 to 3,073,728 in 1930, while its share of the market is down from 47.7 to 24.6 per cent. European competition, striking the United Kingdom more heavily than the United States, has been largely responsible in bringing about this change.

The growth of the Canadian trade in rubber and balata belting was very rapid from 1920, when 29,902 pounds were shipped, until 1925, when 1,213,284 pounds were sent out of the country—a rise from

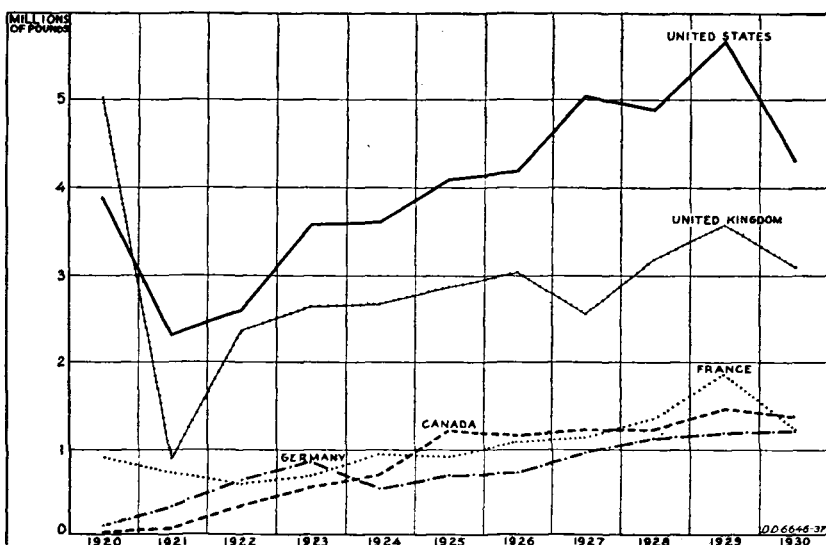


Figure 2.—World exports of rubber and balata belting, by countries, 1920-1930

0.3 to 11.1 per cent of the total world trade. Since then exports have been comparatively level both as to volume and percentage.

France's estimated trade in rubber and balata belting has increased slightly during the last 10 years, rising from 932,027 pounds in 1920 to 1,251,254 in 1930. This means that France's share of this world trade gained slightly over 1 per cent, and is now 10.1 per cent of the total.

Next to Canada, Germany's export trade in rubber and balata belting has shown the largest growth. It amounted to 110,000 pounds in 1920, 330,000 in 1921, 642,400 in 1922, 701,360 in 1925, and 1,229,612 pounds in 1930—a growth from 1.4 to 9.9 per cent of the world total.

These five countries dominate the export trade in this country, no other country shipping more than 350,000 pounds annually. Of the smaller producers, the trade of Switzerland, Czechoslovakia, Sweden, and Denmark is growing, although unlikely ever to attain large proportions.

The accompanying chart shows the trade of the chief exporting countries of rubber and balata belting for the years 1920 through

1930, in pounds, the yearly totals being plotted in the middle of each year.

The table shows the relative positions in the rubber and balata trade held by the 14 largest producers in 1920, 1925, and 1930. In 1930 and in 1931 the British share of the trade had increased at the expense of the United States share, judging from statistics shown previously in the sections devoted to the exports from the two countries. Whether this represents the beginning of a tendency that will carry British exports to a predominant position in this trade, or whether it is the result of a temporary condition leading United States companies to utilize British branch factories to an increased extent for making export shipments, is a question for future years to answer.

PERCENTAGE OF TOTAL WORLD EXPORTS OF RUBBER AND BALATA BELTING SUPPLIED BY CHIEF PRODUCING COUNTRIES

Country	1920	1925	1930	Country	1920	1925	1930
United States.....	37.1	37.4	34.6	Austria.....	0.2	0.1	0.3
Canada.....	.3	11.1	11.1	Czechoslovakia.....	.2	1.6	1.8
United Kingdom.....	47.7	26.1	24.6	Sweden.....	.3	1.1	.7
Germany.....	1.4	6.5	9.9	Norway.....	2.3	3.1	2.3
France.....	8.9	8.6	10.1	Denmark.....	.1	.6	.7
Belgium.....	2.4	3.1	2.8	Australia.....	.1	.1	.1
Italy.....		.5	( <sup>1</sup> )				
Switzerland.....		.1	1.0	Total.....	100.0	100.0	100.0

<sup>1</sup> Not available.

AVERAGE VALUE PER POUND, IN CENTS, OF RUBBER BELTING SHIPPED FROM LEADING EXPORTING COUNTRIES

Year	United States	Canada	United Kingdom	Germany	Year	United States	Canada	United Kingdom	Germany
1922.....	49	47	83	-----	1927.....	53	41	63	63
1923.....	57	56	82	-----	1928.....	57	38	60	60
1924.....	58	56	76	59	1929.....	54	38	56	60
1925.....	59	51	71	65	1930.....	51	36	53	54
1926.....	64	54	70	69	1931.....	43	30	40	49

The average value per pound of rubber belting shipped from Canada is definitely lower than that of the other chief exporting countries. In 1922 Canada's rubber belting averaged 47 cents a pound, that of the United States 49 cents, and that of the United Kingdom 83 cents. By 1924 the figures for the United States and Canada had risen to 58 and 56 cents, respectively, the United Kingdom dropped to 76 cents, and Germany, available for the first time, was 59 cents. By 1926, the United States and Germany were up to 64 and 69 cents, respectively, Canada's price had declined slightly, and the United Kingdom had been further reduced to 70 cents. All were lower in 1928, the United Kingdom and Germany getting 60 cents a pound, the United States 57 cents, and Canada 38 cents. By 1931, Canada was selling at 30 cents, the United Kingdom at 40 cents, the United States at 43 cents, and Germany at 49 cents.

In other words, although the price of all rubber belting is down, that exported from the United Kingdom has dropped more in price than that of any other country.



## LEATHER BELTING

The international trade in leather belting is not dominated by any one country, but divided among several of the chief producers. Until recently the United Kingdom was the principal factor in the trade, but in 1926 the exports of France passed Great Britain in this trade.

In 1920 France sent only 166,622 pounds of leather belting abroad and the total dropped to 112,844 pounds in 1921. The next year saw a sharp rise to 1,071,364 pounds, and this level was maintained until 1930, when 1,657,848 pounds were exported. As shipments from both the United States and United Kingdom have declined during these years, this record has meant that France's share of the total leather belting trade has risen from 2 per cent in 1920 to 26.8 per cent in 1930.

The total exports of leather belting from the chief producing countries from 1920 through 1930 are shown in the accompanying table. Note the extremely even trade totals from 1923 to 1928. The 1929 peak was lower than in 1920.

TOTAL WORLD EXPORTS OF LEATHER BELTING, IN POUNDS, 1920-1930

Country	1920	1921	1922	1923	1924
United States.....	2,819,078	878,535	1,092,308	1,064,449	1,111,185
Canada.....	30,396	30,591	8,478	18,956	24,371
United Kingdom.....	3,429,104	1,956,864	1,889,776	2,394,784	2,312,912
Germany.....	74,800	236,500	546,260	671,850	603,460
France.....	166,622	112,844	1,071,364	1,426,428	1,908,002
Belgium.....	162,718	1,350,612	1,489,909	1,803,610	1,732,382
Netherlands.....	353,711	223,763	293,132	341,620	383,496
Italy.....	82,429	82,650	32,619	44,080	40,112
Switzerland.....	129,374	46,945	56,202	64,797	78,903
Austria.....	221,722	440,800	451,158	566,428	394,516
Czechoslovakia.....	51,132	151,635	52,896	136,592	( <sup>1</sup> )
Sweden.....	10,707	3,735	7,447	7,482	24,374
Norway.....	.....	.....	9,631	5,670	12,388
Denmark.....	55,100	10,358	13,224	5,510	3,967
Japan.....	127,142	134,523	135,812	102,865	143,700
Australia <sup>1</sup> .....	239,725	221,557	79,626	61,023	108,294
Total.....	8,414,760	4,881,912	6,229,842	7,716,174	7,882,062

Country	1925	1926	1927	1928	1929	1930
United States.....	1,346,332	1,347,813	1,241,912	1,250,586	1,294,165	885,573
Canada.....	48,585	749	808	7,737	21,433	6,829
United Kingdom.....	2,084,656	1,788,060	1,808,016	1,631,840	1,709,232	1,287,664
Germany.....	506,660	546,920	508,463	673,542	720,928	468,570
France.....	1,637,351	1,958,474	1,733,446	1,693,112	1,881,334	1,657,848
Belgium.....	962,266	984,306	1,108,832	1,109,934	1,109,493	1,163,593
Netherlands.....	468,949	502,011	575,043	591,688	564,957	485,404
Italy.....	75,817	52,675	27,550	37,247	32,398	36,586
Switzerland.....	74,034	89,041	115,670	136,180	125,724	92,468
Austria.....	286,079	227,232	172,352	233,403	316,494	210,482
Czechoslovakia.....	93,178	112,624	145,904	175,218	229,216	169,267
Sweden.....	5,970	5,997	6,805	2,693	5,719	6,647
Norway.....	4,485	817	703	1,084	1,602	897
Denmark.....	3,526	.....	.....	440	1,763	19,615
Japan.....	114,098	190,282	138,168	201,053	266,895	186,458
Australia <sup>1</sup> .....	70,173	52,983	85,963	60,594	85,344	63,087
Total.....	7,782,159	7,860,004	7,669,635	7,806,351	8,366,697	6,190,988

<sup>1</sup> Estimated on basis of percentage of total belting exports supplied by leather belting in 1925-1930.

<sup>2</sup> Figures not available.

The leather belting exports of the United Kingdom have dropped to a little more than one-third of the 1920 level, while its share of world trade has fallen from 40.8 to 20.8 per cent. This lost business has gone, for the most part, to France. Since 1920 the United States has dropped from second to third place among the leather belting exporting countries of the world; its share of the trade has fallen from

33.5 per cent in 1920 to 14.3 in 1930, and the volume of its shipments from 2,819,078 to 885,573 pounds.

Belgium has a strong export trade in leather belting which supplies about 10 per cent of the world trade, and which, although off sharply from a 1928 peak of 1,109,934, is still 613,593 pounds.

The Netherlands is a steady exporter of leather belting, its shipments averaging a little under 500,000 pounds, or between 4 and 8 per cent of the total. Germany, which in 1930 had a trade about the size of the Netherlands, has increased its trade from 74,800 pounds in 1920 to 468,570 in 1930, or from 0.9 to 7.6 per cent of the world shipments of leather belting.

Among the small producing nations, the trade in leather belting of Czechoslovakia and Japan is increasing, while that of Canada, Denmark, and Australia has shown losses over the last 10 years.

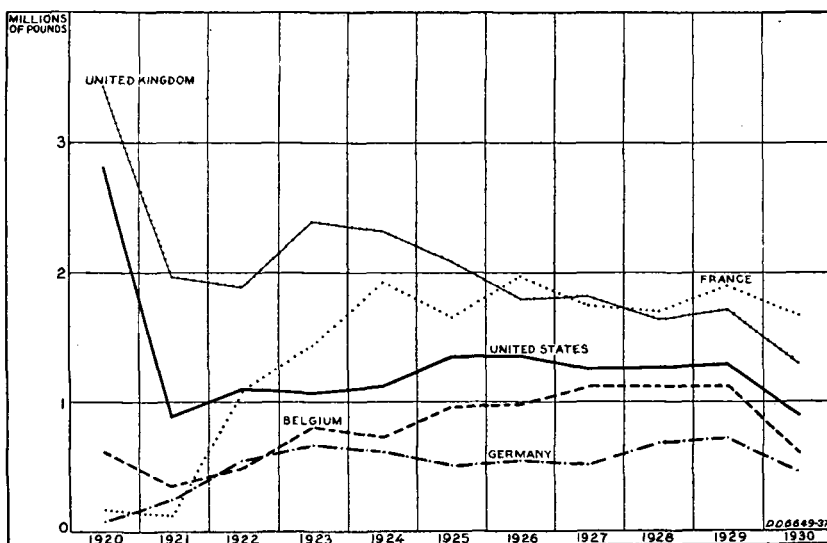


Figure 3.—Total exports of leather belting, 1920-1930

The accompanying chart gives the exports of leather belting from the chief producing countries by years from 1920 through 1930, yearly totals in weight being plotted in the middle of each year.

The following table shows the percentage of total world exports of leather belting shipped by the chief producing countries in 1920, 1925, and 1930.

PERCENTAGE OF TOTAL WORLD EXPORTS OF LEATHER BELTING SUPPLIED BY CHIEF PRODUCING COUNTRIES

Country	1920	1925	1930	Country	1920	1925	1930
United States.....	33.5	17.3	14.3	Austria.....	2.7	3.7	3.4
Canada.....	.4	.6	.1	Czechoslovakia.....	.6	1.2	2.8
United Kingdom.....	40.8	27.1	20.8	Sweden.....	.1	.1	.1
Germany.....	.9	6.5	7.6	Norway.....	.....	.1	.1
France.....	2.0	21.0	26.8	Denmark.....	.6	.1	.3
Belgium.....	7.4	12.3	10.1	Japan.....	1.5	1.4	3.1
Netherlands.....	4.2	6.0	7.9	Australia.....	2.8	.8	1.1
Italy.....	1.0	.9	.....				
Switzerland.....	1.5	.9	1.5	Total.....	100.0	100.0	100.0

## HAIR AND COTTON BELTING

The United Kingdom has always dominated the world trade in hair and cotton belting, and it continues to do so. Although the volume of its shipments fell from 8,629,168 pounds in 1920, to 5,091,968 in 1925, and 3,344,096 in 1930, its percentage of total trade remains very constant. In 1925 it was 59.7 per cent and in 1930, 60 per cent.

For Germany, the second largest exporter of this commodity, no figures are available prior to 1922. It then sent 1,831,940 pounds of hair and cotton belting abroad, and increased to 2,067,120 in 1925. In 1930 the volume had fallen to 1,244,158 pounds, while its percentage of the trade, in the last two years mentioned, has dropped from 24.4 to 22.3 per cent, respectively.

The following table shows world exports of hair and cotton belting, by countries, in pounds, for 1920-1930.

TOTAL WORLD EXPORTS OF HAIR AND COTTON BELTING, IN POUNDS, 1920-1930

Country	1920	1921	1922	1923	1924
United States.....	(1)	(1)	(1)	371,406	378,182
United Kingdom.....	8,029,168	3,830,176	4,927,552	5,782,222	5,514,768
Germany.....	(2)	(2)	1,831,940	1,887,600	1,949,420
France <sup>1</sup> .....	94,331	80,225	111,522	155,602	169,267
Belgium.....	(3)	(3)	(3)	(3)	(3)
Italy <sup>4</sup> .....	99,179	133,561	94,110	117,032	64,136
Switzerland <sup>5</sup> .....	100,943	43,639	61,712	82,650	62,814
Austria.....	13,223	14,105	12,121	13,003	16,309
Czechoslovakia <sup>7</sup> .....	113,941	156,924	92,347	83,531	-----
Sweden.....	54,638	43,873	59,472	80,990	39,631
Denmark <sup>8</sup> .....	9,477	1,983	2,204	7,714	1,763
Japan <sup>9</sup> .....	-----	242,268	157,017	135,678	116,210
Total.....	8,514,900	4,546,754	7,349,997	8,717,428	8,312,500

Country	1925	1926	1927	1928	1929	1930
United States.....	473,006	548,540	521,286	478,097	424,119	276,046
United Kingdom.....	5,091,968	5,120,640	5,278,336	5,349,344	5,241,458	3,244,096
Germany.....	2,067,120	2,045,560	1,980,735	1,689,750	1,761,657	1,244,158
France <sup>1</sup> .....	159,349	184,915	137,529	200,564	232,081	165,320
Belgium.....	134,663	263,597	272,854	260,071	269,548	136,047
Italy <sup>4</sup> .....	85,294	65,238	122,219	46,504	39,230	50,692
Switzerland <sup>5</sup> .....	55,778	31,089	25,826	65,756	84,743	64,943
Austria.....	4,648	6,391	6,170	1,322	1,762	1,982
Czechoslovakia <sup>7</sup> .....	351,150	34,602	52,344	66,340	31,296	16,530
Sweden.....	45,068	42,038	59,326	72,843	70,886	79,224
Denmark <sup>8</sup> .....	-----	-----	-----	-----	2,644	-----
Japan <sup>9</sup> .....	92,213	117,512	151,560	226,031	294,718	191,880
Total.....	8,560,457	8,460,122	8,608,185	8,436,622	8,454,172	5,599,918

<sup>1</sup> Cotton belting only was first officially reported in 1923.

<sup>2</sup> First officially reported in 1922.

<sup>3</sup> All hair.

<sup>4</sup> Not available for hair and cotton until 1925.

<sup>5</sup> Camel's hair, canvas, and hemp belting and hose.

<sup>6</sup> Woven.

<sup>7</sup> Cotton, flax, and hair.

<sup>8</sup> Woven belting and hose.

The United States ranks third as a textile belting exporter. In 1923, the first year for which figures are available, it sent 371,406 pounds overseas. In 1925 this had increased to 473,000 pounds, it reached a high the next year of 548,540, and declined regularly thereafter to 276,046 pounds in 1930.

Japan, the next most important source of supply, was strong just after the war, shipping 242,268 pounds in 1921. This volume dropped off to 92,213 pounds in 1925, or 0.8 per cent of the world total, but recovered in both volume and percentage to 191,880 pounds in 1930, or about 3.5 per cent of the total.

France and Belgium are the only other exporting countries of importance, and both are increasing their percentage of the trade, having contributed 1.9 and 1.6 per cent, respectively, in 1925, and

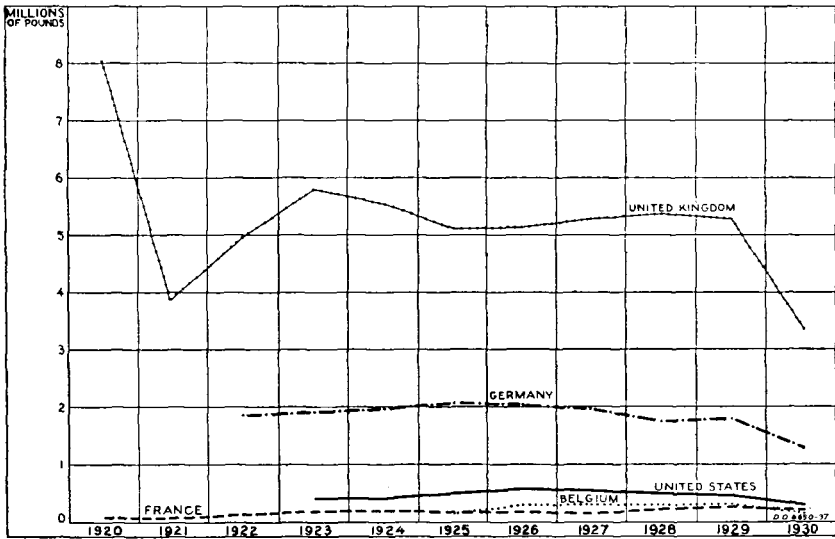


Figure 4.—Total world exports of hair and cotton belting, 1920-1930

3.1 and 2.4 in 1930. No other country exports more than 1.5 per cent of the total.

The accompanying chart shows the annual exports of cotton and hair belting from the principal exporting countries from 1920 through 1930.

The following table gives the relative positions in the textile belting trade of the principal producing countries in 1925 and 1930:

PERCENTAGE OF TOTAL WORLD EXPORTS OF HAIR AND COTTON BELTING SUPPLIED BY CHIEF PRODUCING COUNTRIES

Country	1925	1930	Country	1925	1930
United States.....	5.0	4.9	Austria.....	0.5	0.1
United Kingdom.....	59.7	60.0	Czechoslovakia.....	4.1	.3
Germany.....	24.4	22.3	Sweden.....	.4	1.4
France.....	1.9	3.1	Japan.....	.8	3.4
Belgium.....	1.6	2.4			
Italy.....	1.0	.9	Total.....	100.0	100.0
Switzerland.....	.6	1.2			

## INTERNATIONAL TRADE IN BELTING, BY CLASSES

The years immediately after the war witnessed a rapid development of the international trade in machinery belting. Factories which had been making war materials had to change to peace-time production and needed new belting; while other plants that had put off purchasing new equipment during the years of the war renewed their belting. In 1920 total exports of all classes of belting totaled 29,701,332 pounds. The 1921 depression cut this to 17,340,914, but by the next year it had risen to 21,108,003 pounds and by 1923 had increased to 26,521,976. The total trade held at this approximate level, varying between 25,000,000 and 32,000,000 pounds annually until 1930 when it dropped back to 24,637,461 pounds. The following table shows the international trade in belting, by classes and in total, for the years 1920 through 1930:

INTERNATIONAL TRADE IN BELTING, BY CLASSES, 1920-1930

Year	Rubber and balata	Leather	Cotton and hair	Other	Total
1920.....	10,549,467	8,414,760	8,514,900	2,222,205	29,701,332
1921.....	5,731,331	4,881,912	4,546,754	2,180,917	17,340,914
1922.....	7,336,734	6,229,842	7,349,997	191,430	21,108,003
1923.....	9,663,791	7,716,174	8,717,428	424,583	26,521,976
1924.....	9,155,714	7,882,062	8,312,500	206,086	25,556,356
1925.....	10,866,317	7,782,159	8,560,457	19,630	27,228,563
1926.....	11,331,455	7,860,004	8,460,122	74,388	28,075,303
1927.....	12,138,520	7,669,635	8,608,165	85,052	28,401,372
1928.....	12,983,450	7,806,351	8,436,622	16,918	29,243,341
1929.....	15,282,732	8,366,697	8,454,172	77,413	32,181,014
1930.....	13,388,927	6,190,988	5,599,918	557,628	24,637,461

In 1920 rubber and balata belting made up a little more than one-third of the world total, leather and cotton and hair each provided 28 per cent, and other sorts 7 per cent. Since then there has been a steady upward tendency in the proportion supplied by rubber and balata, being 36 per cent in 1923, 41 per cent in 1926, and 50.2 per cent in 1930. Leather has held fairly steady, rising to 30.8 in 1924 and falling off since then to 25.1 per cent. Cotton and hair also increased until it amounted to 34.8 per cent of the total in 1922; since then it declined every year until 1930, when it was 22.5 per cent of the total. After 1921 "other sorts" of belting were of little importance until 1930, when British figures bring out that category in more detail, accounting largely for the increase of from 0.2 to 2.3 per cent.

INTERNATIONAL TRADE IN BELTING, SHOWING PERCENTAGES OF TOTAL EXPORTS SUPPLIED BY EACH CLASS DURING THE YEARS 1920-1930

Year	Rubber and balata	Leather	Cotton and hair	Other sorts	Total	Year	Rubber and balata	Leather	Cotton and hair	Other sorts	Total
1920.....	35.6	28.4	23.6	7.4	100	1926.....	41.3	27.9	30.6	0.2	100
1921.....	33.2	28.1	26.2	12.5	100	1927.....	42.4	27.0	30.3	.3	100
1922.....	34.8	29.5	34.8	.9	100	1928.....	45.3	26.8	28.8	.1	100
1923.....	36.1	29.0	32.3	2.6	100	1929.....	47.6	25.9	26.3	.2	100
1924.....	35.8	30.8	32.7	.8	100	1930.....	50.2	25.1	22.5	2.3	100
1925.....	39.9	25.5	31.5	.1	100						

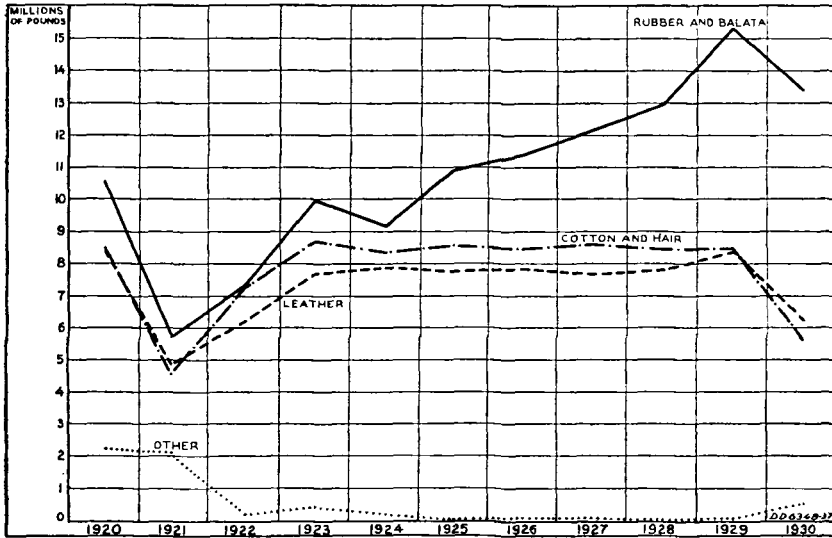


Figure 5.—International trade in belting by classes, 1920-1930

The accompanying chart shows the annual trend of exports of belting, by classes, from 1920 through 1930. The general trend of total exports for each class of belting follows the same curve; conditions that make for good business in one class of belting are good for the belting industry as a whole. It may well be said that an accurate knowledge of belting sales throughout the world is a reliable index to industrial activity, for the general state of business in any manufacturing country can be gauged on the basis of belting consumption.

## MARKET FACTORS

### TECHNICAL ASPECTS OF THE BELTING TRADE

In order to sell mechanical rubber goods in a foreign market, it is necessary, first of all, to have a stock of standard sizes at hand to fill orders promptly. The foreign factory which is in the market for belting replacements can not shut down while waiting for a belt to be shipped from somewhere in America—the belt must be had at once. The first step is, therefore, to select or establish suitable distributors for the territory, and, in addition to proper qualifications as regards finances and business integrity, the representatives should have special knowledge of the belting trade.

The special knowledge required by belting salesmen in order to offer the right belt for a particular drive is of high order. A salesman with such knowledge is a prime requisite to the distributing firm, whether it be a sales branch of the manufacturer or a foreign merchant. Some belting manufacturers who produce various grades of belting, suitable for use under different conditions of service, have published pamphlets outlining the brands most suitable for use on a wide range of drives, in many different kinds of industrial plants. Such literature is extremely helpful to the foreign as well as the domestic distributor or agent.

Several belting exporters maintain in their foreign branches experienced salesmen who are able, after examination of a drive, to recommend the most suitable belt for the purpose. Such a salesman may either have expert technical knowledge of the belting line or that rare gift, obtained through experience, which enables him to specify a particular belt for a specific use. The best-qualified men have both the technical knowledge and the experience, the latter being more essential than technical training. The distributor chosen in a given market should have either a qualified expert in belting, or a salesman capable of developing in that direction, and should be aided so far as possible by helpful literature.

Naturally the suitable distributors in any market will be few in number, especially when it is remembered that the salesman must also be able to gain an interview with the high officials of the concern he is calling upon, a thing even more difficult abroad than in the domestic trade.

The use of the metric system throughout Europe hampers the sale of belting in inch sizes on the Continent. Inch sizes are usually suitable for use on open pulleys not flanged, made to metric measurements, but often foreign firms unfamiliar with inch measurements insist on being supplied with belting in metric sizes. This is more particularly the case with retail dealers in European countries, where the number of small millimeter sizes is much greater than the corresponding number of small inch sizes in America, where standard sizes vary by half inches only for narrow belts.

In order to reduce sales resistance on account of inch measurements, it is well to state measurements in both inch and metric sizes

in export catalogues designed for general distribution, and also to sell the idea that a full line of inch and half-inch sizes will require less capital outlay than a full line of metric sizes because of the smaller variety of small inch sizes. No American manufacturers produce standard lines of belting in metric sizes as such, although some leather-belting companies have made concessions in order to promote their export sales; usually American firms only supply belts in millimeter sizes when the belt is being specially constructed to meet specifications.

### TRADE PRACTICES

*Demonstrations.*—It is usually a matter of individual salesmanship to introduce a new line of belting in a particular market. Take a case where conditions necessary to the sale of belting are all favorable; that is, a stock of standard sizes is available for the filling of orders, and a qualified salesman is employed to introduce the line, which is of recognized quality. The foreign manufacturer, on being asked to give the belt a trial, will more than likely demand a demonstration to prove the truth of the claims made before placing an order. Many home offices will authorize their foreign distributors to go to this extent in endeavoring to develop a market if the belt required is a stock size and special construction is not required.

*Guaranties.*—Time guaranties of service are not often given on belting in foreign markets. Manufacturers of standard products are always ready to stand back of their product, so far as material and workmanship are concerned, and will replace or repair free of charge a belt which fails on account of defective construction or materials, but time guaranties are usually rendered impracticable by the impossibility of knowing whether the belt is properly installed, while the difficulty of telling what sort of treatment and care will be given a belt always renders guaranties of length of service dangerous. Guaranties are almost never given on new installations. Always when guaranties are offered free replacements are made only on observance of specified proper installation, proper service conditions, and proper treatment of the original belt.

*Credits.*—The matter of credit extension is of particular importance in the export trade in belting, owing to the rather slow movement of stocks. In many foreign countries the competitive position of American belting exporters would be much strengthened by a liberal credit policy. This does not imply that this subject is not now given consideration nor that credit should be granted promiscuously; it merely means that the selling policy of the exporter should be sufficiently elastic to provide credit facilities where necessary to meet competition. While there is always an element of danger in extending credit, there are several foreign markets which the American manufacturer must either handle on this basis or else leave entirely alone.

### DISTRIBUTION METHODS

What has already been said of the technical nature of the belting trade is indicative of the channels through which this trade moves, as well as of the limited number of suitable distributors available in any given territory. The amount of capital required by a firm to enable it to carry a full line of belting in all sizes is large, and since



belting stocks are rather slow moving in territories not highly industrialized, dealers frequently hesitate to carry a full stock.

*Factory branch offices.*—Belting is frequently distributed in important foreign markets, such as England, Argentina, South Africa, Australia, Mexico, and British India, through factory branch offices, the line usually being handled in connection with other mechanical products of the factory, such as packing, valves, washers, and hose, and often additional products not in the mechanical line. The practicability of distribution through a branch office depends in the first instance on the volume of prospective business. Such distribution can be economically practiced only in important markets, but unless exceptionally able distributors can be secured in a market, the branch-office plan is in the long run the best method of maintaining an assured position in the trade. Only the leading manufacturers can practice this form of foreign distribution. While there are no statistical data on the subject, it is certain that an important share of United States belting exports go to foreign branches of United States manufacturers.

These foreign branches sell direct to individual consumers only on very large accounts. The average consumer is reached through sub-agencies granted to dealers and mill-supply houses, or mill furnishers, as they are called in Great Britain. Special salesmen attached to branch offices aid the dealers in every possible manner. To assist the subagents and to give necessary repair service, etc., a repair shop is sometimes maintained in connection with foreign branches. This service enables the branch to offer facilities equal to those of manufacturers of belting in the foreign market and gives the American exporter a better competitive standing than is possible without it.

*Foreign agencies.*—Small manufacturers generally secure representation abroad, and large manufacturers do likewise in markets not sufficiently large to warrant the maintenance of a branch office, through agencies granted to wholesale distributors who distribute to retailers in the same manner as a foreign branch office. A large percentage of the belting exports from the United States go to agents representing American manufacturers as distributors. Usually the leading firms in the belting trade are to be found among the large mill-supply houses and importers handling light industrial machinery, the belting line being a natural adjunct to the machinery business. Infrequently a foreign manufacturer of some particular class of belting may handle imported belting of a different material. Importers of agricultural implements frequently handle belts for threshing machines, tractors, hay presses, and other agricultural uses. Hardware wholesalers are another important group of belting distributors, especially in medium-sized and small markets, while in several of the smaller territories belting is handled on indent by general importers and trading companies. It is desirable to require agents to handle a single make of belting; good results are not so likely to be attained when the agent carries other makes, even if the different makes are different classes of belting. Through the channels described above, the exporter of belting reaches foreign markets directly through personal representation or through agency arrangements.

*Sales through purchasing agents.*—A somewhat less important share of the belting export trade is handled in an entirely different manner. The leading companies engaged in mining developments throughout the world, and a great many important foreign industrial belting

users maintain buying offices in New York or London, frequently in both centers. A considerable share of the belting exports from America and England are sold to local purchasing agents, representing large foreign consumers. Export offices of manufacturers in New York and London keep in close touch with such purchasing agents.

*Direct sales.*—A certain amount of importation of belting by large foreign users direct from the factory is carried on, the user ordering from specifications. Such direct importation by consumers is less common in transmission belting, which is usually available in standard sizes, than in conveyor or elevator belting, where a special product is required.

While the trade in belting is not one to be developed by correspondence with foreign importers, the distribution of descriptive literature abroad frequently serves a good purpose. An American exporter of rubber belting, who had for some time been unable to interest the New York purchasing agent for a Chilean nitrate mine in his product, finally succeeded in doing so through circularization of the engineers at the Chilean mine. The engineer has an important influence on the international trade in belting, and to the large number of English-trained engineers in foreign countries, whose experience and training make them familiar with British products, the dominating position of British belting manufacturers in international trade is largely due. The extent to which British capital is engaged in foreign mining and industrial enterprises is a factor of practically equal importance in maintaining the position of the British industry.

#### PECULIARITIES OF DIFFERENT MARKETS

A study of the statistics of exports from the producing countries, shown in previous sections, will give much information regarding the types of belting used in individual consuming countries. Markets, like individuals, have their peculiarities and prejudices; each market is merely a collection of individuals influenced by custom and environment. To a certain extent, a consideration of this fact helps to an understanding of the varying degrees of popularity of different types of belting in different foreign countries. Climatic conditions also have a bearing on this question.

The nationality of the firms which largely control the import business in a particular market has in many cases a large influence, as in India, for example, where a large part of the import trade is in the hands of English and German houses. Woven-hair and cotton belting is extremely popular in India, and these are the classes in which England and Germany have their largest trade. Over 50 per cent of the weight of belting consumed annually in Egypt is of the woven-hair class, and again English firms dominate the import trade. In Denmark over 50 per cent of the belting imported is balata and rubber, the balance being about equally divided between leather and woven belting. In Cuba high-grade leather belting has a larger sale than all other classes combined, although United States rubber belting is a strong competitor. In Mexico and in Chile rubber belting is far in the lead. To account for these differences requires a knowledge of the consuming industries and the development of trade in each market from its origin to the present time.

## INTERNATIONAL TRADE IN MACHINERY BELTING

97

## AVERAGE FOREIGN EXCHANGE RATES

NOTE.—The table covers the exchange rates applying to the currencies used in connection with the export statistics of the foreign countries discussed in this publication, and is inserted for convenience in reference.

Country	Unit	Par	1920	1921	1922	1923	1924
United Kingdom.....	Pound.....	\$4. 8665	\$3. 6642	\$3. 8490	\$4. 4292	\$4. 5748	\$4. 4170
Germany.....	Mark.....	. 2382	. 1751	. 1204	. 2382	. 0020	.....
France.....	Franc.....	. 1930	. 0704	. 0745	. 0820	. 0681	. 0523
Belgium.....	do.....	. 1930	. 0738	. 0744	. 0768	. 0521	. 0464
Netherlands.....	Guilder.....	. 4020	. 3441	. 3364	. 3849	. 3910	. 3821
Italy.....	Lira.....	. 1930	. 0497	. 0429	. 0476	. 0460	. 0436
Switzerland.....	Franc.....	. 1930	. 1690	. 1735	. 1906	. 1806	. 1822
Austria.....	Crown.....	. 2026	.....	.....	.....	.....	.....
Czechoslovakia.....	do.....	.....	.....	.....	. 0242	. 0295	. 0295
Sweden.....	do.....	. 2680	. 2049	. 2254	. 2617	. 2655	. 2652
Norway.....	do.....	. 2680	. 1652	. 1490	. 1750	. 1667	. 1394
Denmark.....	do.....	. 2680	. 1577	. 1780	. 2095	. 1836	. 1672
Japan.....	Yen.....	. 4985	. 5037	. 4825	. 4780	. 4858	. 4119

Country	Unit	Par	1925	1926	1927	1928	1929	1930
United Kingdom.....	Pound.....	\$4. 8665	\$4. 8289	\$4. 8582	\$4. 8610	\$4. 8662	\$4. 8568	\$4. 8621
Germany.....	Mark.....	. 2382	. 2380	. 2379	. 2376	. 2386	. 2381	. 2385
France.....	Franc.....	. 1930	. 0476	. 0324	. 0392	. 0392	. 0391	. 0392
Belgium.....	do.....	. 1930	. 0475	. 0326	. 0298	. 0278	. 0278	. 0279
Netherlands.....	Guilder.....	. 4020	. 4016	. 4009	. 4011	. 4022	. 4016	. 4023
Italy.....	Lira.....	. 1930	. 0398	. 0389	. 5156	. 5257	. 5233	. 5237
Switzerland.....	Franc.....	. 1930	. 1932	. 1931	. 1926	. 1926	. 1926	. 1938
Austria.....	Crown.....	. 2026	. 1406	. 1407	. 1407	. 1407	. 1405	. 1409
Czechoslovakia.....	do.....	.....	. 0296	. 0296	. 0296	. 0296	. 0296	. 0296
Sweden.....	do.....	. 2680	. 2685	. 2676	. 2681	. 2680	. 2678	. 2685
Norway.....	do.....	. 2680	. 1788	. 2233	. 2605	. 2669	. 2668	. 2676
Denmark.....	do.....	. 2680	. 2113	. 2622	. 2672	. 2674	. 2668	. 2676
Japan.....	Yen.....	. 4985	. 4104	. 4711	. 4714	. 4641	. 4610	. 4939

**CHECKED**  
**2003-04**