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FOREWORD

THE profession of Traffic Management has become one of the most alluring professions in this age of ingenious development, perchance for the reason that transportation has resolved itself into the most intricate division of the field of commerce.

The crude method of handling transportation in the early era of water craft and railroad has evolved into such a complex system that only men with a broad knowledge of traffic in all its phases are capable of solving the modern problems of carriers and shippers.

The question arises in the young man's mind: How can I qualify myself for efficient service in this profession? The answer is: Only by assiduous study, supplemented by actual practical experience.

In order that opportunity may be afforded to those who are interested in this profession to acquire the requisite education, the Standard Traffic Management Course has been carefully prepared, being based on a life's practical experience, together with the constructive suggestions and valuable assistance of many skillful and successful traffic executives.

The purpose of this Course, from beginning to end, is to convey in a comprehensive way the methods actually employed by competent traffic managers, so that it may serve as a guide for those who are striving to fit themselves for this vocation.

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The authors also express appreciation of courtesy extended by many eminent commercial, railroad and steamship traffic executives.

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Chapter I.

TRAFFIC MANAGEMENT

Section 1

Development of the Traffic Department

WHY A TRAFFIC DEPARTMENT.—Our country differs widely in topography, climate, density of population and production of the various sections. The products of one section, either in their raw or manufactured state, must be transported to the commercial centers and other sections for fabrication, distribution and consumption.

In order to transport these products our land is traversed with numerous railroads over which continually pass long train loads of merchandise. A great fleet of steamships, carrying immense cargoes, plies between our seaports in coastwise and intercoastal trade. Another fleet of vessels operates on the Great Lakes. Our large rivers and harbors are crowded with all kinds of boats, busily engaged in transporting goods. The highways are thronged with motor trucks and other vehicles of various shapes and descriptions, actively at work in transporting freight. Now another agency for the rapid transportation of goods has been developed as the aeroplane bursts into the traffic field. Without the handicaps incident to vehicles that move on the earth, where roads must be constructed to facilitate going forward, the aeroplane lifts itself into the heavens, and with a speed which puts the most ambitious motor car or railroad to shame, it takes a direct line for its destination and rushes from the Atlantic Ocean to the Pacific Coast between sunrise and sunset.

Through these many arteries of commerce flow the

products of field, forest, factory, and mine, thereby creating constantly almost innumerable traffic problems, both intricate and complex: For instance, the cotton grower in Texas must place his cotton in the New England mills in competition with the cotton growers of the Carolinas and Georgia. The fruit and vegetables from the groves and gardens of California must be placed in the Eastern markets in competition with the fruit and vegetables from the groves and gardens of the South. The manufacturers of New England must place their goods in the West in competition with the manufacturers of the Middle States. The new textile mills in the South must place their goods in the West in competition with the mills of Fall River and other New England towns, and so on.

The transportation companies are continually making rate adjustments to meet these sectional problems. They have created freight rate bureaus for the purpose of making exhaustive research in order to determine all the elements affecting rates on the almost countless variety of commodities and thus endeavor to issue tariffs containing reasonable and equitable rates. The task of satisfying shippers is extremely difficult and almost impossible.

DIFFERENT KINDS OF TRAFFIC MANAGEMENT.—It will be observed that there are several different kinds of Traffic Management; viz., railroad, steamship, express, trucking companies, and industrial or commercial. The aeroplane is destined to become a potent factor in transportation and the handling of traffic by this agency will require skillful management.

Traffic Managers of the railroad and steamship companies are usually men who entered the employ of the companies in their youth, who have traveled the hard road of experience and have achieved this posi-

tion of distinction by the development of exceptional ability in this particular branch of the business.

The traffic manager of one railroad or steamship company has much the same general problem as the traffic manager of another railroad or steamship company. But there are many different kinds of business and Industrial Traffic Management presents entirely different problems from those that confront the railroad and steamship traffic manager. There is no vocation more fascinating or presenting more varied problems than that of industrial traffic management. The vocation never becomes monotonous because new and intricate problems are constantly arising.

VARIED PROBLEMS.—An Industrial Traffic Department is usually developed from a small beginning and has solved its problems in its own way. It is built to fit the business and is sufficient to the task. There are no two Traffic Departments organized exactly alike, possibly for the reason that industrial traffic leads into realms that have not been fully developed and because our industries are varied, and have to do with the transportation of so many different commodities.

The size of a Traffic Department and the completeness of its organization depend principally upon the character and volume of the business, the variety of the commodities handled, the quantities in which they are shipped, and the extent of the territory in which they are distributed. If a business is extensive and diversified, a systematized Traffic Department is necessary. If, however, the business is large in volume, but with little detail, a small organization suffices: For instance, the Traffic Manager of a mail-order house has a different problem to face from that of an elevator manufacturer or a coal company. A shipper may forward monthly many thousands of tons of a single commodity in carload lots and would require only a small force to

attend to the traffic details, while another shipper may have only a small monthly tonnage, but due to the variety of the commodities handled, the quantity in which they are shipped, and the wide extent of the territory in which they are distributed, a large and well-organized Traffic Department would be necessary to handle the numerous details. Some industries have given the Traffic Department jurisdiction over the physical handling of the product, thus adding to the opportunities as well as to the burdens of the department.

INTRODUCTION OF THE TRAFFIC MAN.—It was only a few decades ago that the industrial traffic manager was first introduced. Men who had received their early training in the employ of the railroad and had achieved a place of distinction were engaged by large industries to protect them in their dealings with the railroads. Prior to that period very little attention was given to proper packing and routing of freight, the shipper not being interested because the freight charges were usually paid by the customers. In the modern method of business, however, the shipper is intensely interested in these details and mercantile establishments find a Traffic Department which cooperates closely with the purchasing and selling departments a profitable investment.

From time to time more laws to regulate commerce (the principle of which was to prevent discrimination) were put upon the statute books. The railroads were required to publish a multitude of rules and tariffs. The situation grew into a labyrinth of technicalities and became so complex that, as a result, the ordinary shipper was required to hire a traffic expert to handle his traffic affairs.

Many shippers still seem to be in ignorance of the value of a competent traffic manager, when it has been proved to be a large factor in the earning capacity of

many mercantile concerns. A large traffic department in New York City has its accounts kept separately. It is debited with all the expense it incurs by its maintenance, i.e., salaries, losses in transportation, proportion of overhead expense, etc., and credited with its actual earnings; i.e., claims collected, rate and classification adjustments obtained, etc. This department shows a profit each year of many thousands of dollars.

The great demand for men of technical training and versed in traffic matters has made schools necessary to round out the education of men for traffic work. Some time ago the "Traffic World," the foremost publication of its kind, stated editorially the following:

"This is undoubtedly the day of the industrial Traffic Manager. It would seem that never, in the comparatively few years since the necessity for the Traffic Manager has been generally recognized in commercial business, has there been a time when it could not be truthfully said that never before was there greater opportunity for him and that never before was he able to be of such value to his employer. But it is now more true than ever. The day is coming when the traffic man will be as important and as powerful as the attorney to whom the head of the business turns for advice and whose advice he does not question. The lawyer knows the law and that ends it. He is hired to know the law. The traffic man knows the traffic game and what transportation measures are best for his own business and all business."

The prophesy made in the above quotation has unquestionably been fulfilled and today the traffic director of a large industry or commercial house is one

of the most valuable executives, his position having developed into a profession of almost vital importance.

THE OPPORTUNITY IN TRAFFIC MANAGEMENT.—A survey has not been made of the number of highly trained men engaged in handling the traffic affairs of shippers, but the number of traffic managers employed by shippers are now on the increase, and an evidence of this fact is the formation of traffic clubs and traffic organizations at all the important commercial centers, indicating a large field of activity. The total membership of these traffic organizations runs into the thousands. The Traffic Club of New York has a resident membership of some 1,500, and more than 800 of these represent traffic departments of industrial concerns. Every traffic manager should become a member of his local traffic club, because in its fellowship he will come into close contact with the carriers' representatives and his fellow traffic men, the kind of contact that nowhere else may be attained. Business friendships are formed, better understanding evolved, and differences adjusted readily and amicably. These close associations are a great aid to the ambitious traffic man and make for better business.

Yet in spite of this activity and the progress made in solving transportation problems, there are many business men who know little of the economies that are possible through an adequate knowledge of technical traffic matters. There are thousands of concerns without Traffic Managers that could use them to advantage. No chamber of commerce, board of trade, merchants' association, or similar organization would be complete without a Traffic Department. All over the country, at the present time, merchants' associations of cities and towns are installing Traffic Departments. The success of this branch of the organization depends on the selection of a competent traffic man who has had the proper

training. The field is wide and possesses many opportunities for young men who want to succeed, and are willing to pay the price of success.

Section 2

Organization of a Traffic Department

EACH BRANCH SPECIALIZED.—As the Traffic Department is developed, each branch of the work is specialized. Every one has a particular assignment, as is customary in any well regulated organization. Possibly a more graphic idea will be conveyed by a general outline of a Traffic Department in actual operation. The personnel of such a department in a large manufacturing concern, which has been in operation a number of years and which has been highly developed, is as follows:

It is not possible to give an organization chart of a Traffic Department that could be followed generally, but the outline given will show the extent to which a Traffic Department may be developed to handle a large and diversified traffic. At the beginning, this department consisted of a Traffic Manager, a clerk, and a stenographer. Today it consists of forty-three people in the main office, and large units under its supervision at the manufacturing plants. The various positions in the departments are given, together with the general subjects handled by each.

PERSONNEL OF A WELL ORGANIZED TRAFFIC DEPARTMENT.—

TRAFFIC MANAGER (*and his Secretary*).

SENIOR ASSISTANT TRAFFIC MANAGER, in charge of:

General railroad matters,
Supervision of the main office,
Rate adjustments,

TRAFFIC MANAGEMENT

I. C. C. and Classification matters,
 Supplying the Purchasing and Selling Departments and the plants with rate information,
 Complaints of service,
 Solicitation Correspondence,
 Switching,
 Car Supply,
 Demurrage,
 Weight Agreements,
 Statistics,
 Attending rate meetings,
 Meeting the public.

CHIEF CLERK: Rate and Routing Department,
 Distributing mail,
 Routing matters,
 Passing reports and records,
 Tracing important cars,
 Embargoes,
 Outstanding freight bills.

CHIEF RATE CLERK:
 In charge of tariff file,
 Overcharge claim correspondence,
 Rate quotations,
 Rate compilations,
 Refunds, not in claim.

TWO RATE CLERKS:
 Checking overcharge claims,
 Freight allowances,
 Checking freight bills.

TWO ROUTING CLERKS:
 Compilation of routing sheets,
 Routing supplies.

CHIEF CLAIM CLERK: Claim and Trace Department,
 Claim and trace correspondence,
 Reconsignments.

CLAIM CLERK :

Claim and trace correspondence.

CORRESPONDENT :

Initiating tracers,
Unclaimed freight,
Concealed losses,
Requests for bills of lading, invoices, assignments, etc.

ASSISTANT CHIEF CLAIM CLERK :

In charge of claim records,
Correspondence relative to remittances and accounts,
Tracing claims.

CLAIM CLERK :

Preparation of loss and damage claims, .
Remittances,
Cancellation record.

CLAIM CLERK :

Claim register and ledger work.

SIX FILE AND MAIL CLERKS :

Filing of correspondence, tariffs, etc.,
Handling inbound and outbound mail,
Mimeograph work, etc.

THIRTEEN STENOGRAPHERS AND TYPISTS

ASSISTANT TRAFFIC MANAGER, in charge of :

Shipping departments and their personnel at plants.

Preparation of shipments :

Packing,
Checking,
Weighing,
Marking,
Loading.

Expediting shipments,
Complaints involving shipping departments,
Visiting plants.

ASSISTANT :

Cost figures on shipping expense,
Factory stocks and inventories,
Orders.

THREE CLERKS :

Records of daily shipments,
Orders for stock,
Reports.

ASSISTANT TRAFFIC MANAGER in charge of :

Trucking at all plants,
Trucking contracts,
Outside warehousing arrangements,
Approval of purchases of truck equipment.

ASSISTANT :

Trucking statistics,
Checking cartage bills,
Insurance of goods on trucks,
Checking trucking reports.

TWO CLERKS :

Arranging for hauling,
Placing of trucking orders,
Record of trucking.

The Traffic Department has charge of the product from the time it is delivered to the shipping floor by the manufacturing department, until it is finally delivered to the consignee. It ships on orders obtained by the selling department and accounts for the shipment to the accounting department, which bills the goods and collects the money. The Traffic Department is also responsible for the expense of shipping.

The man who was the clerk in this Traffic Department when it was established became the Traffic Manager, and at the present time he is a member of the board of directors of this large organization and is its Traffic Executive in charge of all transportation matters.

Section 3

The Traffic Manager

DEFINITION OF TRAFFIC MANAGER.—This is comparatively a new profession and is mostly filled from the ranks of railroad-trained men, and railroad experience is a very valuable factor of a traffic man's education. But the industrial Traffic Manager must have a broader knowledge and a wider vision than the average railroad man. His functions are as varied as the business of his employer. In the past decade the importance and responsibility of this profession have so greatly increased that today the competent Traffic Manager is actually a *Transportation Engineer*.

The Traffic Manager may be defined as follows:

(a) The Traffic Manager is the man in charge of the shipping for his employer, which may be a manufacturing company, wholesale distributor, exporter, mining corporation, or anybody that ships or handles merchandise or material in sufficient volume to warrant employing a man to give his attention to that part of the business.

(b) The Traffic Manager is the shipping expert, who has a technical knowledge of railroad and steamship service, tariffs, routing, rate construction and classification, transportation law, claims, and a practical understanding of the elements that enter into transportation.

(c) The Traffic Manager has full control of, and directs the policy in all shipping matters.

(d) The Traffic Manager is the transportation representative of the shipper in all dealings with the carriers.

(e) The Traffic Manager is the executive who selects places where factories are located, branch houses and warehouses established, prescribes the territory for the purchasing department and furnishes necessary transportation cost information to the salesmen. The population of our country is still increasing and expanding, consequently production centers and sales routes are constantly changing. In the location of additional manufacturing or distributing plants the territory to be served and the sources of raw material must be given most careful consideration. The Traffic Manager is the one who is capable of solving these problems in order to conserve waste transportation.

A good shipping clerk, a competent rate clerk and a capable claim clerk are not necessarily traffic managers, although some concerns are satisfied to regard them as such. However, these men by further education and training, together with their continual practical experience, may more rapidly become competent traffic men than those engaged in other vocations.

QUALIFICATIONS FOR A TRAFFIC MANAGER.—(a) The Traffic Manager should know the country in general. He should have a clear conception of the geography of the United States. He should be so familiar with the railroad and steamship maps of the country that he can trace the main lines of the important roads and know the direct routes.

(b) He should know the individual merits of the various railroad and steamship systems and their workings with each other, their connections and junc-

tions, and should know the locations of the large railroad centers and port districts.

(c) He should have a practical understanding of the elements that enter into transportation.

(d) To know the routes he must have a broad knowledge of rates, their construction and application, the classification affecting the commodities he handles or ships, the general rules, the special service tariffs covering diversion, lighterage, switching, transit privileges, refrigeration, demurrage and storage.

(e) The Traffic Manager should be familiar with the Interstate Commerce Act, Bill of Lading Act, etc. (see various Acts in Freight Traffic Red Book), affecting the relations between shippers and carriers, including the decisions of the Interstate Commerce Commission and the Courts, to guide him in the correct conduct of his business. He should also be familiar with such instruments as the bill of lading contract, indemnity agreement and bond of indemnity, assignments, and the freight claim rules. He should know the Rules of Practice before the Interstate Commerce Commission and be capable of appearing before it to present his petition in the proper manner

(f) In this age of the typewriter, the bulk of routine matters is handled by correspondence; the Traffic Manager should know the proper channels through which to readily transact business.

(g) The Traffic Manager for the larger companies should be a man who has traveled sufficiently to know the location of the lines he uses. He should have the personal experience derived from travel. It may not be possible for a traffic manager to visit distant terminals and junctions, but he can travel to the terminals in the city in which he is located. Intimate acquaintance with the officials and employees of the railroad and

steamship companies that handle his traffic is not only advisable, but necessary in order to obtain satisfactory results. The Traffic Manager cannot transact all his business in an office.

(h) The Traffic Manager should possess the qualification of good common sense. He should have the sense of proportion and be practical in small things. He should have a will to please, a co-operative spirit, and a desire to render service.

(i) The Traffic Manager should possess a high degree of diplomatic ability. He should be on friendly terms with all. He should deal fairly and strive to please. This is the day of co-operation; whenever a common desire prevails to reach a point of agreement in the adjustment of a grievance, differences are soon ended.

(j) The two most important requisites of a Traffic Manager are "Breadth of Understanding" and "Honesty of Purpose." Any traffic manager who, for the sake of collecting a few dollars from a transportation company, will stand on the strictest technicalities, without considering the principles involved, is a failure, regardless of his traffic knowledge, and he will quickly place his concern before the carriers in a most unfavorable light. By knowing the limitations of the carriers and the problems to be worked out, the two interests can be reconciled.

DUTIES OF A TRAFFIC MANAGER.—The responsibilities of the Traffic Manager should be as follows:

First: To protect his company from loss:

(a) by complying with rate and classification requirements so as to obtain the proper rates;

(b) by paying only the tariff rates;

(c) by eliminating waste transportation in distribution—that is, consolidating shipments, avoiding duplication and unnecessary hauls, loading the quantity of freight, the weight of which will equal the minimum weight upon which charges are assessed: For instance, the minimum freight charge is 100 pounds at the class rate applicable to the commodity, or the carload minimum weight for a commodity may be 30,000 pounds and the shipment to be forwarded may weigh 24,000 pounds. The freight charges would be much less on the basis of the minimum weight of 30,000 pounds at the carload rate than on the actual weight of 24,000 pounds at the less-than-carload rate, yet there is a waste transportation of 6,000 pounds, because 6,000 pounds more could have been shipped without additional cost;

(d) by reducing the number of mistakes;

(e) by guarding against delays that may result in closing down of plants, or great loss to his employer due to penalty contracts or fall in market prices.

(f) by obtaining, retaining and preventing rate and classification adjustments;

(g) by collecting just claims.

Second: To bring about economies by reducing the cost of shipping, loading, trucking, etc.

Third: To obtain better service (a) by secure packing, and (b) by intelligent shipping, loading, and routing.

Further important duties are:

(a) If a new factory is to be located, the Traffic Manager must survey the field. Knowing the source of the raw materials which his company will require, he must designate the points at which these raw materials

may be assembled and the manufactured product distributed at the lowest aggregate transportation cost.

(b) The Traffic Manager must obtain the car supply adequate to move shipments expeditiously.

(c) In time of congestion, he must trace cars and get them through to customers promptly.

(d) When shipments are lost or damaged in transit, he must decide what shall be done. If a shipment is refused at destination or stopped in transit because of cancellation of the order or failure of the buyer, he must take correct action and thereby effect quick disposition with the minimum loss.

(e) The Traffic Manager should keep his sales department posted as to competitors' transportation costs, as well as his own, to the points where sales are to be made.

(f) The purchasing department may be looking for an article, and after the several places where it may be obtained are located, the Traffic Manager advises which is the cheapest point for buying the goods, where both cost and transportation are considered.

When transportation laws are unsatisfactory, he should assist in a campaign of education to have them amended.

Especially should he endeavor to establish cordial relations with the carriers in the spirit of cooperation and by a reputation for fair dealing.

Section 4

Subsidiary Traffic Jobs

SHIPPING CLERK.—What has been said as to the duties and qualifications of the Traffic Manager applies

to the men coming up the line; for as time goes on they must take higher positions. Business is demanding men who are efficient, loyal, and upright. No traffic manager is qualified for his position unless he is able to do the work of each and every man in his department, and this is true of all executives.

A competent shipping clerk is a great asset to a traffic department. His task is laborious, but in his work he is acquiring the fundamentals of traffic management and is building a firm foundation for higher development by obtaining practical knowledge of correct packing, proper containers, classification requirements, marking packages, shipping papers, routing, diversion, demurrage, storage, trucking, and warehousing.

RATE CLERK.—There is no work of greater importance in the Traffic Department than that of *rates*. The *knowledge* of rates is the principal pillar supporting the structure. The Traffic Department is responsible for the correctness of the rates paid. The rate clerk should become so familiar with the rates applying on his commodity that even the railroad agents will regard him as an authority. He should be so exact that, when he quotes a rate, he can name his authority for it and stand back of it without fear of contradiction.

CLAIM CLERK.—The man who handles claims has a position which, considered by itself, may be a profession. He should have a thorough knowledge of transportation, a full understanding of carrier's liability, of rates and classification.

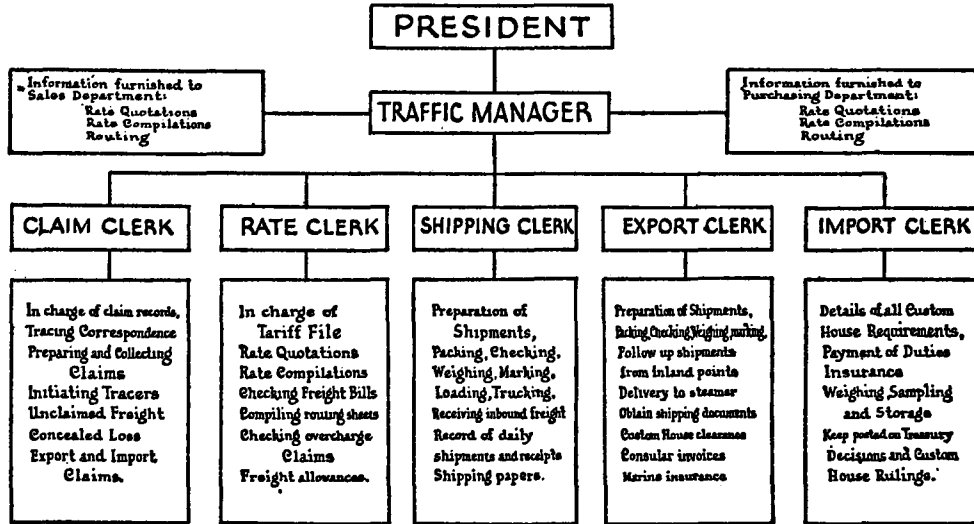
The duties of the claim clerk will be explained in detail in the subsequent chapters treating of "Claims."

OPPORTUNITY FOR PROMOTION.—An old saying, which we often hear, is "There is plenty of room at the top," *but it is not true*. Life is a pyramid and there is room

for only a few at the top. At the base, however, there is plenty of room, and the large majority of men are content to remain there, because to ascend requires study, assiduous application, and persistency.

It has been stated that the Traffic Department is a matter of growth, so with the traffic man. Young men, whether high school graduates or college men, start in minor positions, and then by study and practical application, as they develop ability and knowledge, can look forward to traffic management as a life work which has almost unlimited possibilities.

Organization Chart TRAFFIC DEPARTMENT



Chapter II

DEVELOPMENT OF TRANSPORTATION AND ITS REGULATION

COLLATERAL READING: In the Freight Traffic Red Book—Governmental Regulation; Interstate Commerce Act; Elkins Act.

Section 1

Transportation Agencies

THE MEANS OF TRANSPORTATION.—The history of the development of transportation in the United States may be divided into four eras; namely, first, the era of turnpike construction when the trails of the Indian and the hunter were enlarged into roads so that the ox-cart and the mule or horse-drawn vehicles could travel less laboriously and thus transport larger quantities of merchandise.

In order to repay the cost of these turnpikes, tolls were assessed for their use, and at the places where tolls were collected, gates were erected which opened and closed the roads to traffic. These gates consisted of stout poles, armed with pikes, hinged to strong posts so that they could be swung back and forth across the road—hence the name, turnpike.

Prior to 1796 the sailing vessel was the principal if not the only practical agency of transportation in this country. There were only a few roads that could be characterized as improved. But the rapid growth of population increased the necessity for more means of transportation, and to meet this need the building of turnpikes began. The first turnpike to be constructed was from Philadelphia, Pa., to Lancaster, Pa., a distance of sixty-six miles. It was crudely constructed, boulders being rolled in with no regard for symmetry and filled between and above with earth and gravel.

Yet in a paper of that time this turnpike was described as "a masterpiece of its kind, being paved with stone the whole way, and overlaid with gravel, so that it is never obstructed during the most severe season."

Many other turnpikes were constructed, some by means of private capital and others by States and by the Federal Government, the most celebrated of these being the Cumberland Road or "National Pike." It was eight hundred miles long, and extended from Cumberland, Md., to Vandalia, Ill. The advent of canals and railways retarded this development and quite a number of turnpike projects were abandoned.

2. ERA OF CANALS.—The digging of canals, of course, was possible when two rivers or other bodies of water could be connected satisfactorily. We are told that George Washington was the first man who sensed the future of canal building, and his project was to connect Chesapeake Bay and the Ohio River, and his main efforts were directed toward the carrying out of this plan.

The construction of the Erie Canal, which was the greatest achievement in canal building, began in 1817, and it was completed in 1825. This project, stupendous at that time, was undertaken and carried through by the State of New York, De Witt Clinton being the Governor during nearly all of the period of its progress, and it is alleged that the success of the enterprise was due to his foresight and energy. The route of the canal traversed an uninhabited wilderness and therefore opened for settlement an immense territory. It has been quite successful and contributed in no small degree to the growth of New York City, Buffalo, and intermediate cities. Its termini are Buffalo on Lake Erie and Albany and Troy on the Hudson River. For many years it served as a great artery of traffic between the Northeastern States and the newly settled States of

what was then known as the West. At the present time it is an important artery of commerce, being the most economic route for transportation of low-priced commodities and grain.

In Congress two projects are now being considered; viz., the building of the Great Lakes-St. Lawrence-to-the-Sea Canal and the development of the Erie Canal into a deep-waterway All-American Canal across New York State from the Great Lakes to the Atlantic Ocean via the Hudson River.

Canal building was greatly stimulated by the construction of the Erie Canal, and up to 1840 there was a period of great activity in this direction, the primary reasons being to obtain means for transporting coal from the newly discovered coal fields in Pennsylvania to the Atlantic Coast, and merchandise from the Eastern Settlements to the rapidly growing Western towns. The decline in canal building began in 1840, due, first, principally to the extension of railroads; second, to the cost of construction, which was greater than for railroads; third, to their slow method of transportation; and fourth, to the limited territory served.

3 THE ERA OF RAILROADS.—The third period of transportation development is that of railroad construction. We are still living in that period, but it is now merging into a fourth; viz., the era of motor trucks, aeroplanes, hydroplanes, and dirigibles.

Railroad building began about the year 1830, at which time the Baltimore and Ohio Railroad had completed a track from Baltimore to Ellicotts Mills, Md., a distance of fifteen miles. Up to 1850 railroad building progressed slowly, most of the roads that were built radiating from New York and Philadelphia, but great activity in this line was also manifested in the New England States.

During the decade from 1850 to 1860 there was great business prosperity. Large farm areas were developed in the West and produced abundant crops, and cotton growing in the South was greatly increased. The superiority of the railroad over the canal as an agency of transportation and its lower cost of construction having been demonstrated, railroad expansion increased rapidly. As a further stimulation to railroad construction, the States and the Federal Government made liberal land grants. During this period many short lines were consolidated.

After the Civil War railroad construction became very extensive, and in 1869 the first trans-continental line was completed. Additional large land grants by the Federal Government aided this development. The decade from 1880 to 1890 is notable as the greatest period of railroad expansion, more than 70,000 miles of track having been constructed. This great activity was caused by a mania to speculate, due to the plentifulness of money brought about by the surplus capital awaiting investment accumulated during the period of depression in the seventies. The United States Government was also a potent factor in this era of prosperity, having placed in circulation a large amount of money by rapid repayment of its war debt. As a result of this, many unnecessary railways, paralleling others, were built under the guise of establishing competing lines, but the real purpose, it is alleged, was to force the older lines to purchase the new roads at extortionate prices.

Since 1890 railroad building has declined, the mileage of track constructed being quite small, but the present railway systems total over 260,000 miles of track.

MOTOR TRUCK AND AIRCRAFT.—The motor truck is now largely used for short haul traffic in competition with the railroads and steamships. The employment of

motor trucks in transportation service has again made the old turnpikes serviceable and they have been placed in modern shape and many additional highways have been built.

The service which the motor truck renders is of great merit, because there is less packing required; there is no rehandling of freight and generally quicker deliveries can be made, with store door delivery the rule. The motor truck is also a feeder to the railroad, for by its use industries are able to locate at long distances from railroad stations where costs are much cheaper. Under the old method of cartage this location of industries would be impossible. Motor trucks are also of assistance to farmers in bringing their produce to the railroad station.

Some railroads have put motor truck units into operation, thus displacing local less-than-carload freight trains.

The aeroplane is used for carrying mail and express matter, but the express use is in the experimental stage.

Section 2

Regulating Transportation

ATTEMPTS AT REGULATION.—Up to the year 1870 the operation of railroads was left almost entirely to their owners. It was generally assumed that the cost of railway services, like that of all commodities, would be controlled by competition, but in the competition for trade, the railroads sought to advance the interests of favored producers and commercial centers, which resulted in preferential rates and discrimination. The various sections of the country, however, were eager to expedite railroad construction, and far from imposing

any restrictions on the railways by regulation, many States granted privileges and concessions which they were subsequently to bitterly regret.

After the railways became well established, the popular belief that competition would act as a regulator of rates began to change. Evidence of discrimination, as between shippers and localities, was brought to public attention, and a movement was started to enforce regulation of rates by the State. The Grangers, a powerful organization in several of the Western States, became zealous advocates of regulatory legislation. And soon thereafter, many States began to pass laws authorizing the appointment of Railway Commissions having power to fix rules and rates. Until 1886 it was generally believed that a State had a right to regulate rates on all transportation business within its boundaries, but in that year the United States Supreme Court decided that the regulation by a State of rates on traffic originating outside of the State, or destined to points outside of the State, is interference with interstate commerce.

As most of the traffic of the United States is interstate this decision practically deprived State regulation of its force. The demand of the public for regulation of railways continued to increase to such an extent that Federal regulation became a necessity.

THE INTERSTATE COMMERCE ACT.—In 1887, Congress passed the Act to Regulate Commerce. This Act created a Commission to investigate and adjust transportation charges, and to correct abuses, but this law did not prevent discrimination, although the railroads were compelled to begin a semblance of tariff enforcement, and it did secure publicity of rates, reduced freight charges, and adjusted rail charges in different localities.

The Act was so framed that its provisions could be evaded by both the shippers and the carriers. The Commission had really no decisive power, and shippers found it almost impossible to obtain any satisfaction. As soon as the Commission rendered a decision, it was appealed to the Courts, and it took about six years for each case to be decided. Out of over thirty decisions rendered by the Commission only two were affirmed by the Court. The orders of the Commission were not binding, and it began to become the general opinion that the Commission was useless, because its decisions were reversed by the Courts in almost every case. But the Act had come to stay, and by subsequent amendments it has been made effective.

THE ELKINS AND HEPBURN ACTS.—By the Elkins Act the law was strengthened. It specifically authorized penalties for departures from the rates and regulations contained in published tariffs, and it restricted discrimination to some extent, but it did not secure reasonable rates nor did it convey to the Commission the power of enforcement. When Theodore Roosevelt became President he insisted on legislation that would actually regulate the railroads, and the Hepburn Act was passed by Congress. This law extended the field of regulation to cover express, sleeping car companies, and pipe lines. "Transportation" was broadly defined as including among other things, "all services in connection with the receipt, delivery, elevation and transfer in transit, ventilation, refrigeration or icing, storage and handling of property transported." Another provision gave the Commission power to prescribe just and reasonable rates, when after a hearing it was found that the carriers' rates were unreasonable.

THE MANN-ELKINS ACT.—Further power was given to the Interstate Commerce Commission by the Mann-Elkins Act of 1910, under which the Commission could suspend rates and fix maximum rates and enforce

freight classifications. It also provided that through rates could not exceed the aggregate of the intermediate rates, and the long and short haul provision was re-enforced. A very important provision was that when carriers filed tariffs increasing rates and shippers protest against the rates becoming effective, the burden of proof that these increased rates are just and reasonable should be upon the carriers.

THE PANAMA CANAL ACT.—This Act, passed in 1912, forbids railroads to have interest in any competitive common carrier by water operating through the Panama Canal or elsewhere. The Commission was given power to require connection of rail and water carriers, to establish through routes and maximum rates for rail and water lines and to require carriers having traffic arrangements with one steamship line to include all others operating from the same port.

This Act provided that the Commission could grant extension of time during which such specified service by water other than through the Panama Canal could continue, if such service was in the interest of the public and does not prevent or reduce competition.

THE TRANSPORTATION ACT OF 1920.—By this Act the membership of the Interstate Commerce Commission was increased to eleven members.

A number of sections contain amendments to the Interstate Commerce Act. These amendments enlarged the powers of the Commission as follows:

1. It can permit pooling of traffic, when such pooling is in the interest of the public.
2. It may approve consolidation of railroads according to a sectional plan.
3. It can route goods in time of necessity, due to congestion or embargoes.

4. It is given power over car service.

The following brief explanation is given of these powers, as enumerated, in order that they may be clearly understood.

1. Pooling, as practiced by the railroads, may be defined as a division of traffic or of the proceeds of traffic among competing carriers, the object being to minimize the effects of competition by maintaining rates.

Railroad pools may be divided into two classes: 1. *Traffic Pools*, (a) whereby the business of a particular territory is assigned to each competitor, or (b) a certain percentage of the competitive tonnage is assigned to each. 2. *Revenue Pools*, whereby the receipts or competitive traffic are divided among the companies according to stipulated ratios.

There was great opposition on the part of the public to such arrangements for eliminating competition and thereby maintaining high rates, so the practice was prohibited by Federal Enactment.

However, many students of the subject favor pooling under governmental supervision, claiming it prevents discrimination and contributes to the stability of rates. By the Transportation Act the Commission is now empowered to permit pooling when, in its opinion it will be in the interest of better service to the public or economy in operation, and will not unduly restrain competition.

2. The Transportation Act authorized the Commission to prepare and adopt a plan for the consolidation of the railway properties of the United States into a limited number of systems but in this division competition must be preserved as fully as possible and wherever practicable the existing roads must be maintained.

While this Act authorizes the Commission to approve railway consolidations yet it is not given power to compel the railways to consolidate.

The grouping or consolidation of railroads is deemed essential by many for the reason that some roads are now operated at a great loss, and consolidation would be to their advantage because it would enable these roads to be absorbed by the larger companies and the stockholders would be protected. It would enable the weak roads to consolidate with the stronger and thereby place the railroad business on a sound basis.

If the grouping of railroads did not eliminate competition, it might possibly enable shippers to handle their traffic more satisfactorily, as transportation would be simplified because through rates could be more easily established and the classifications would undoubtedly be more uniform.

3. In time of necessity, due to congestions or embargoes, the Commission may make reasonable directions with respect to the handling, routing and movement of traffic over the lines of any carrier, which, in the opinion of the Commission, will best improve the service in the interest of the public and the commerce of the people.

4. The power over car service means that the supply, movement, distribution, etc., of cars used in the transportation of property are subject to the jurisdiction of the Commission.

Whenever the Commission is of the opinion that shortage of equipment, congestion of traffic, or other emergency requiring immediate action exists in any section of the country, it is authorized to suspend the operation of any rules or practices established with respect to car service and make reasonable directions without regard to the ownership of cars during such

emergency, as in its opinion will best promote the service in the interest of the public.

The Commission may require such common use of terminals as will best meet the emergency and serve the public interest; and may also give directions for preference or priority in transportation, embargoes, or movement of traffic under permits.

Section 3 Value of Education

THE VALUE OF A BROAD EDUCATION FOR ANY BUSINESS.—So generally is the fact recognized that the more education a man has, the more efficient and desirable employee will he make, that everywhere, in all lines of trade, it is becoming a common thing to require of all applicants for all sorts of positions, at least a high school education, and the standard for consideration of an applicant in an increasing number of organizations is a college education.

Practical, hard-headed business men would not make such requirements if experience had not taught them that a background of wide, general information on many subjects is a valuable asset in any employee no matter what his allotted task may be. Situations are likely any minute to arise when some of this stored-up knowledge, seemingly so foreign to the task in hand, often proves really valuable. But beyond this, the habit of clear and logical thinking formed, and the power acquired to concentrate on the task at hand, which result from any honest effort to secure an education, are factors that contribute a large share to efficacy and achievement in any man's work.

The modern young man, as never before, realizes the value of education as is evidenced by the thousand

of young men who work all day, and spend their evenings attending High Schools, Colleges, and the many private schools, striving ever to fit themselves for higher and better positions. It is an inspiration to stand at night in front of high schools or visit the educational institutions, and observe the great number of young men so eagerly seeking for knowledge.

DEFINITE TRAINING FOR DEFINITE TASKS.—Valuable as is the background of a thorough education along broad lines, and valuable as are the habits and powers developed in obtaining it, it goes without saying that a man must have definite training and much practice in order to become skilled in definite tasks.

But there is no more royal road to success in this line to the high school or college graduate than to the grammar school graduate. Each must do hard work to master the subject, both in theory and in practice.

Lest the grammar school graduate should be discouraged by the fact that he has had so little education, and therefore may not reach the top, let him remember that the old fable of the "Hare and the Tortoise" is often enacted in the business world, when some young man full of ambition pushes steadily upward toward a goal, while his swifter and more accomplished fellow-worker, confident in his superior ability, rests by the way.

A prominent traffic manager, who has a national reputation as a traffic expert, entered the employ of a large trans-continental line as a messenger boy at the early age of 15 years. He attended night school and learned stenography. Within a short time he was given a stenographer's position and was promoted rapidly, becoming the private secretary to the General Manager. An opportunity to enter the traffic department of one of the largest industrial corporations in the United

States came to him and he accepted. The position was not equal to the one he had, either financially or in prestige. He was only a clerk. But he continued to attend night school and by the education thus obtained in conjunction with the practical experience acquired both while with the railroad and in his daily tasks, he while yet a young man, became the Traffic Manager of this large corporation. Today he is the Vice-President in charge of traffic, a director of the company, and he is also a director of two railroads. What a man thinks he can do, he can do.

EDUCATION PLUS PRACTICAL EXPERIENCE EXPEDITES SUCCESS.—Every thoughtful man must admit that it is wise for him to secure all the education he can as a preparation for any sort of life work, because the trained, educated mind grasps a subject and its technique much more quickly than an untrained mind, and consequently moves forward more rapidly to mastery of it all and to an honored place of responsibility. Two young men begin at the same time their business careers in the traffic department of a large corporation. One is a graduate of a grammar school and seeks no higher education than that obtained by strict application to his daily task; the other is a college graduate and has completed a Traffic Course. Both are ambitious to become a Traffic Manager. Both apply themselves earnestly and assiduously to the work, but the better trained mind gets a comprehensive knowledge in far less time than does the one whose education must come to him through the work alone. Training on the job supplemented by knowledge and power acquired through higher education, expedite reaching of the desired goal.

Chapter III

MODERN TRANSPORTATION AGENCIES

COLLATERAL READING: In the Freight Traffic Red Book—Traffic Abbreviations; Traffic Glossary; Interstate Commerce Act, Section 1, Paragraph 3.

Section 1

Present-Day Freight Agencies

MODES OF TRANSPORTING FREIGHT.—The present-day agencies of transportation or modes of transporting freight are:

All-Rail,
Rail-and-Water,
All-Water,
Express,
Parcel Post,
Motor Truck,
Aeroplane.

All these agencies are used for the purpose of freight transportation except aeroplanes, which at present are used only for carrying passengers, mail, and express matter; but undoubtedly they will soon be transporting freight. In foreign countries they are now being used to some extent as freight carriers.

Every man of average experience knows enough to describe each of these modes of freight transportation; but, in order that we may have clearly in mind what each agency stands for in the traffic field, the following brief descriptions are necessary.

ALL-RAIL AGENCIES.—All-Rail transportation covers the movement of freight entirely by railroad, and a larger tonnage is carried by this agency than by any other. The railroads divide tonnage into two classes:

viz., *fast freight* and *slow freight*. The term "fast freight" as used by railroads includes perishable commodities and freight taking the higher classification ratings; the term "slow freight" includes commodities taking the lower classification ratings as well as most commodities for which specific commodity rates are established.

These terms, however, are often used by shippers for the purpose of indicating freight forwarded via standard lines and freight forwarded via all-water, rail-and-water, or circuitous routes, over which lower rates of transportation prevail, the former being the "fast freight" and the latter being the "slow freight." While the railroads do not guarantee the time when freight will reach its destination, they do operate fast freight trains which move on schedules, so that the time necessary for freight to reach destination on one of those trains may be reckoned with fair accuracy.

RAIL-AND-WATER AGENCIES.—Rail-and-Water transportation is usually a cheaper but slower method than All-Rail. In domestic commerce Rail-and-Water transportation means via the Great Lakes, Coastwise Lines, Sound Steamers, or the Panama Canal, in connection with the railroads. The lines thus operated could not compete for traffic with All-Rail carriers at equal rates; therefore, they are permitted to make lower rates and thereby offset the better service offered by the railroads.

When freight is transported via Rail-and-Water, unless the tariffs containing rates covering the transportation specifically state that the rates include marine insurance while on the water lines, it should be covered by marine insurance; because the responsibility of the carrier is only that of a water carrier, under the Federal statutes, which is practically nil and is in no way similar to the liability assumed for All-Rail

carriage. But if the rate includes insurance for transportation partly by water, the responsibility of the carrier is somewhat the same as if the property was transported wholly by rail.

ALL-WATER AGENCIES.—The cheapest method of transportation is via All-Water, and a vast tonnage is carried by the water lines. The term All-Water means transportation service from port to port; that is, the shipment must originate at the port from which the vessel sails and be consigned for delivery at a port of destination.

The All-Water domestic routes are the Great Lakes, the Barge Canal (Erie Canal), the Coastwise Lines, the large rivers, and the Panama Canal. Freight can be transported via the Great Lakes and Barge Canal only during the season navigation is open. In the winter months transportation via these routes is suspended.

Steamship lines operating via the Panama Canal are strong competitors of the railroads for the Pacific Coast traffic, and, as a rule, they furnish excellent service.

Freight transportation via All-Water should be covered by marine insurance, unless this insurance is included in the rate. The necessity for marine insurance is on account of the fact that the statutes relieve owners of vessels from liability, to any extent, for goods that may be destroyed or damaged while in the possession of the vessel.

EXPRESS AGENCIES.—The Express service is an agency of transportation which is operated in connection with the railroads. By use of this service safety and speed in transportation of merchandise is guaranteed and responsibility is concentrated. This agency accepts any kind of commodity, regardless of value,

and assumes full risk. In the large cities they collect packages from shippers, forward them usually on the same day on trains traveling at the rate of fifty to sixty miles per hour, and deliver them to the street address of the consignees.

PARCEL POST AGENCY.—Parcel Post is a Government agency operated by the Postal Department, and it furnishes a convenient means of transporting small packages. This service is more extensive than that of any other transportation agency, reaching to the towns and rural communities not served by railroads. The rates to nearby cities are generally lower than those effective by other means of transit, but the limit to the size of packages, the value of the commodities, and the quantity in which they may be forwarded, offsets, to a considerable extent, the advantage of this service.

When shipments are sent via this agency they must be delivered to the Post Office at the point of origin, but at destination they will be delivered at the street address of the addressee.

When the Parcel Post service was established it was the general opinion that it would take the place of the express companies to a considerable extent, but the heavier shipments and the long distance packages continue to move by express. However, the field is large enough for both agencies, because neither could handle the business of both and render as good service to the public.

MOTOR TRUCK AGENCY.—The motor truck is a rapidly growing agency of transportation and is becoming an increasingly desirable method of transporting certain classes of goods, where the distance of haul is not too great. Within the last decade operators of motor trucks have established regular routes and are becoming strong competitors of the railroads for short

haul traffic. freight is delivered to the trucks at shipper's address and is transported direct to the desired delivery point without rehandling. The cost of transportation is generally higher than that by rail, but it is justified for the reason that the extensive packing and container requirements for articles forwarded by rail are practically eliminated, and the time of movement is generally guaranteed.

AEROPLANE AGENCY.—Aeroplanes are used for transporting mail and express matter regularly, and some of the railroads have established rail-and-air routes for passenger traffic.

What is to be the future in regard to transporting freight by aeroplane remains to be seen. It does not, however, take much imagination to picture in the not far distant future a large quantity of freight being transported by these vehicles of the air which are capable of operating over direct routes at great speed. The development of this agency of transportation will furnish additional problems for the traffic manager to solve.

Section 2

Factors in Selecting Freight Carriers

SELECTING THE RIGHT CARRIER.—In selecting the carrier that would be the most practicable for handling tonnage to or from territory tributary to water and rail routes, one should become familiar with the merits of the various systems and the differences in service. The factors to be considered are:

- (a) Time,
- (b) Cost,
- (c) Nature of commodity,
- (d) Competitive point,
- (e) Rehandling,
- (f) Distance.

WHEN TIME IS A FACTOR.—Perishable freight is transported by fast freight trains in cars especially built for that service, as time is essential. Frequently, perishable freight is forwarded via express. Urgent need for freight would also be an essential factor in selecting the fastest route.

COST TO BE CONSIDERED.—Cost is always an important factor in selecting a carrier, particularly when forwarding articles of low value, or in getting merchandise to a competitive market. When time is not essential, shipments are forwarded via the cheapest route commensurate with the service required.

THE COMMODITY ITSELF LIMITS CARRIER SELECTION.—The nature of the commodity has a large bearing on the selection of the carrier. Merchandise of low value, bulk freight, unusually heavy articles, fragile, or valuable goods, and commodities which, from their inherent nature, are liable to damage in water transportation, are factors which must be considered in forwarding freight.

COMPETING LINES TO BE CONSIDERED.—A competitive point may be defined as one served by two or more carriers in competition for the traffic to or from that point. If the competing carriers are all-rail lines, the rates for transportation are usually equal even though the line of one carrier may be more direct than that of another. If the competing carrier is a water line, or a rail-and-water line, the rates for transportation via these routes will be lower than the all-rail rates.

In the first instance the selection of the carrier will be governed by the proximity of either the shipper's or consignee's place of business to one of the competing lines; or the selection may be influenced by the better service accorded by one of the lines. In the second instance the selection will be governed by the

nature of the commodity, and whether or not quick delivery is necessary.

THE QUESTION OF REHANDLING.—It is the desire of all shippers to avoid rehandling in transit, and they endeavor to forward their shipments to destination in through cars. Direct loading of less-than-carload shipments, however, is frequently impossible, or not practicable, and freight is forwarded via one or more transfer points. Many carriers endeavor to operate through cars to the large commercial centers for handling less-than-carload shipments in order to avoid transfers.

DISTANCE MODIFIES CHOICE.—The distance between the point of shipment and destination is a factor that must be considered when selecting a carrier. For a short distance, the motor truck is a preferable agency for transportation of certain commodities; and frequently for long distance transportation, water routes are preferable to all-rail. The selection of route, however, must be governed largely by the nature and value of the commodity to be transported.

Section 3

Definitions: Carriers, Interstate, Intrastate

COMMON CARRIER.—Any person or company that undertakes to transport property or persons when requested to do so, whether by air, land or water, is a common carrier.

PRIVATE CARRIER.—Any person or company that undertakes to transport property or persons by special agreement or contract, and is not engaged in business as a public employment, is a private carrier.

CARRIERS SUBJECT TO INTERSTATE COMMERCE ACT.—All common carriers engaged in interstate commerce

are not subject to the Interstate Commerce Act; only the carriers specifically named therein are subject to the Act.

There are a number of kinds of common carriers that are subject to this Act, but in this course we shall treat only of those engaged in the transportation of property wholly by railroad, or partly by railroad and partly by water, and express companies.

INTRASTATE TRAFFIC.—Traffic having origin, destination and entire transportation within the boundaries of a state is intrastate traffic and is not subject to the jurisdiction of the Interstate Commerce Commission, unless there is shown to be unjust discrimination against interstate or foreign commerce. State laws are enforced by State Commissions generally designated as Public Service, Railroad, or Utility Commissions. It is necessary for a shipper engaged in intrastate traffic to ascertain the laws and regulations governing transportation in that particular State.

The transportation of property in the United States from port to port (freight originating at one port and destined to another port) by steamship companies in coastwise and intercoastal trade, or on the Great Lakes, is also interstate traffic but is subject to the jurisdiction of the United States Shipping Board, a Federal body which functions under authority of the United States Shipping Act, in a similar manner to the Interstate Commerce Commission.

The commerce of this country is largely **INTERSTATE**, and so it is far more essential for a shipper to acquire a knowledge of the Federal laws than of the State laws, because the latter are merely local and can in no way affect the laws governing interstate commerce.

Chapter IV

SHIPPING PAPERS AND STANDARD FORMS

COLLATERAL READING: In the Freight Traffic Red Book—
Traffic Abbreviations; Traffic Glossary; Bills of Lading Act;
Standard Forms of Shipping Papers.

Section 1

Bills of Lading

VARIETIES OF BILLS OF LADING.—The Bill of Lading is a very important document. All shippers should be thoroughly familiar with the uses of this instrument and with the conditions printed thereon. It is not only a receipt for the goods described thereon, but it is also a contract between shipper and carrier, in which the latter agrees to transport the goods for the former under certain specified conditions. If the shipper is not willing to accept those conditions, he may forward his goods at the carrier's risk, limited only as provided by common law, on payment of a higher rate; but this practice is not usual among shippers.

There are four kinds of bills of lading used in transportation, each serving a special purpose. They are:

Uniform Straight Bill of Lading, (See Form No. 1, Red Book)

Uniform Order Bill of Lading, (See Form No. 2, Red Book)

Uniform Live Stock Contract, (See Form No. 3, Red Book)

Uniform Through Export Bill of Lading, (See Form No. 25, Red Book)

The last one will not be discussed until we reach that part of the course devoted to Ocean Transportation. The others will need examination now.

STRAIGHT BILL OF LADING.—For ordinary domestic freight traffic the Straight bill of lading and the Order bill of lading are used. In a Straight bill of lading it is stated that the goods are consigned or destined **TO A SPECIFIED PARTY**. This document is not negotiable and the words "Not Negotiable" are printed thereon. If the transportation charges are to be collected from consignee and the shipper desires to be relieved of any liability for such charges, he should so stipulate, by signature, in the space provided for that purpose on the face of the bill of lading. On delivery of shipment to carrier for transportation, this bill of lading is signed by the receiving clerk and is the shipper's receipt for the goods. The Straight bill of lading is used for the large majority of shipments.

ORDER BILL OF LADING.—There are four distinguishing features about an Order bill of lading; namely,

1. The goods are consigned to the Order of the party named in the bill of lading.
2. The name and post office address of the party to notify on arrival of the consignment at destination must always be written on the bill of lading.

3. The Order bill of lading is a negotiable document, and as such may be used for several purposes. It is most frequently used when shippers desire to collect for the value of shipments prior to delivery, and is similar to C. O. D. transactions. The railroads will not accept shipments for C. O. D. delivery, so the Order bill of lading must be used when shippers desire payment prior to delivery of goods forwarded by freight. When this method of shipment is employed, shippers usually consign the freight to their own order, and

after bill of lading is signed by the agent of the railroad and is properly endorsed by shipper it is forwarded, with invoice and draft attached, through the bank in which shipper deposits to a bank at destination, to be delivered to the purchaser of the goods against his acceptance of the draft. On receipt of these documents, the destination bank notifies the purchaser that it holds the bill of lading and draft, and when he receives notice of arrival of the shipment from the railroad, he calls at the bank, pays draft, and the bill of lading is given to him. The bank's charge for this service is usually one-quarter of one per cent of the amount of the draft.

The employment of this method of forwarding also enables shippers at distant points to collect from the home bank the value of the consignment, as soon as the bill of lading is properly signed and endorsed. Many shippers would be unable to finance their business without this method of quick payment for goods shipped. The use of the Order bill of lading does not cause any reflection on the credit of the party who negotiates the document, and frequently order shipments are made to industries of the highest financial standing. For instance, a shipper of flour in the West, or a shipper of fruit on the Pacific Coast, may forward large quantities of his goods to the East, consigning the shipments to his own order. On obtaining signed bill of lading from the railroad agent he endorses it properly, attaches thereto the invoice for the value of the freight covered thereby, together with a draft for the amount of the invoice, and sends them to the bank with which he transacts business. This amount less discount is then credited to his account.

4. For the purpose of making the Order bill of lading readily distinguishable from all other bills of lading, it is printed on yellow paper. The Memorandum

dum bill of lading and the Shipping Order are printed on blue paper.

LIVE STOCK CONTRACT.—For shipments of live stock the Uniform Live Stock Contract is used instead of the Uniform Bill of Lading. This form was prescribed by the Interstate Commerce Commission and it was adopted by the carriers in the three major Classification Territories, March 15th, 1922. It is not negotiable.

This document is in the form of an agreement, but it is also a receipt for the freight and contains a contract to transport the property as consigned therein under the conditions shown on the back thereof. As the duties and responsibilities incurred by carriers in transporting live stock are quite different from those required in handling dead freight, special contract conditions and terms are rendered necessary for the mutual protection of shippers and carriers.

The number and description of the animals and the weight of shipment must be entered thereon. If shipment consists of other than ordinary live stock; that is, chiefly valuable for breeding or racing purposes, etc., shipper must sign a declaration as to their value. If shipment consists of ordinary live stock, declaration to that effect must be signed by shipper, but he is not required to declare their value.

EXCHANGE BILL OF LADING.—An Exchange bill of lading is simply a regular bill of lading issued in exchange for another. When a shipment has been accorded a change in destination, name of consignor, or name of consignee, en route, in accordance with a diversion tariff, and it is desired to obtain the application of the through rate via the point of diversion, an Exchange bill of lading may be issued.

This Exchange bill of lading must indicate clearly

that it is an Exchange bill of lading, and the date and number of the document for which it is exchanged and the name of the station at which the original document was issued must be shown thereon. The usual purpose for the use of an Exchange bill of lading is to conceal the name of the original shipper from the ultimate consignee.

In cases of diversion, if Exchange bills of lading are not desired, an endorsement, in lieu of exchange, is inserted on the original document.

MEMORANDUM BILL OF LADING.—The Memorandum bill of lading is simply a DUPLICATE of a bill of lading and is retained by shippers for record purposes. Carriers frequently sign this document, on request, but write on it the word “duplicate.”

SHIPPING ORDER.—The Shipping Order is a duplicate of the bill of lading. It is retained by the carrier and a waybill is made from it after the weight of the freight covered thereby together with route and rate have been noted thereon by different railroad clerks.

Section 2

Other Transportation Documents

FORMS FOR SPECIAL PURPOSES.—In addition to the shipping papers described in Section 1, there are several documents used for special purposes in freight transportation. They are:

The Waybill. (See Form No. 6 Red Book)

Notice of Arrival. (See Form No. 7 Red Book)

Freight Bill. (See Form No. 7 Red Book)

Delivery Receipt. (See Form No. 8 Red Book)

Indemnity Agreement. (See Form No. 10 Red Book)

Bond of Indemnity. (See Form No. 9 Red Book)

WAYBILL.—After receipt of a shipment by a transportation line at point of origin a document, termed a waybill, is prepared, showing the point of origin, destination, car number and initials, route, consignor, consignee, description of shipment and amount of transportation charges. This document is forwarded with the shipment, or sent direct by mail, to the agent at the transfer point or waybill destination. It is the practice of some of the large railroads to have the billing agent, in one typing, make out the waybill, memorandum freight bill, delivery receipt, notice of arrival, and copy of waybill, which makes for economy and efficiency because it renders unnecessary the duplication of a large portion of this work at destination.

NOTICE OF ARRIVAL.—On arrival of freight at destination, notice is promptly sent or mailed to the consignee. This notice shows number of packages, description of articles, route, rate, weight, car initial and number, and amount of freight charges; also the station where delivery may be obtained, and the time allowed for removal before demurrage or storage charges will begin to accrue.

FREIGHT BILL.—There are two kinds of Freight Bills: viz., a Freight Bill—showing the amount of charges, when they are to be collected at destination, and a Prepaid Freight Bill, which is given to shipper on prepayment of the charges shown thereon. These freight bills contain also all the other information shown on the arrival notice.

On surrender of arrival notice, or bill of lading, and payment of charges (if collect), it is receipted by cashier and given to consignee together with an order

for delivery. If charges are prepaid, consignee may, on request, obtain a copy of the Prepaid Freight Bill when obtaining the delivery order.

DELIVERY RECEIPT.—The Delivery Receipt is turned over to the delivery clerk, who obtains the consignee's signature thereon after delivery of the articles named therein and surrender of the cashier's order.

INDEMNITY AGREEMENT.—There are two forms of the Indemnity Agreement. One form is required by railroad freight claim departments when a claimant is unable to furnish in support of claim the original paid freight bill, or original bill of lading. The other form is used to indemnify the railroad company for delivery of an "Order" shipment without surrender of the original bill of lading, properly endorsed, because it has been lost or delayed. This Agreement must be secured by the deposit of a certified check for 125 per cent of the invoice, or cash in lieu of certified check. Under the Agreement this check, or cash, is retained by the carrier as security until surrender to the delivering carrier of the original bill of lading, properly endorsed, or until acceptance by the treasurer of the delivering carrier of a surety bond.

BOND OF INDEMNITY.—A Bond of Indemnity is a surety given to a transportation line to indemnify it against all claims or liability, for any action on its part for which it might be legally liable. It is generally used when an "Order" bill of lading has been lost or delayed, and usually when shipper desires to stop a shipment in transit. This bond must be for twice the amount of the invoice or value of the property, and it provides that the party executing the bond shall deliver to the delivering carrier the original bill of lading, properly endorsed, when the same be had or found; then the obligation will be void; otherwise the bond will remain in full force and effect.

Section 3

The Law Governing Bills of Lading

BILLS OF LADING ACT.—(See “*Bill of Lading Act*” in *Red Book*.) This Congressional Act relates to bills of lading issued by any common carrier, subject to the Interstate Commerce Act, for the transportation of goods in interstate commerce, or from a place in a State to a place in a foreign country. Important provisions of this Act, to which attention is directed, are as follows:

(a) Section 2 defines a straight bill of lading, and in Section 6 it is specified that this bill of lading is *not negotiable*.

(b) Section 3 defines an order bill of lading, states that it is *negotiable*, and that nothing shall affect its negotiability except by an agreement in writing upon its face signed by the shipper.

(c) Section 8 provides that the carrier shall deliver goods on demand of the consignee named in a straight bill of lading, or on demand of the lawful holder of an order bill of lading, properly endorsed, on surrender thereof; and that, when goods are delivered, the lawful holder of the order bill of lading shall sign an acknowledgment of their receipt.

(d) Section 9 states to whom the carrier is justified in delivering goods.

(e) Section 10 defines an unlawful delivery on the part of carrier, and Sections 11 and 12 define the liability of carrier for failure to deliver goods or any part thereof.

(f) In Section 13 it is provided that any alteration of a bill of lading, without authority, after it is issued shall be void; and that, in such case, the bill of lading shall be enforceable according to its original tenor.

(g) Sections 20 and 21 define the liability of carrier, when goods are loaded by carrier and when loaded by shipper, respectively.

(h) Section 22 defines very explicitly the liability of the carrier, whose authorized agent has issued a bill of lading for goods to be transported in interstate commerce. This section makes the carrier liable to the owner of goods covered by a straight bill of lading, or the holder of an order bill of lading who has given value in good faith, relying upon the description therein of the goods, or upon the shipment being made upon the date therein shown, for damages caused by the non-receipt of all or part of the goods upon or prior to the date therein shown, or their failure to correspond with the description thereof in the bill of lading at the time of its issue. This Section is very important because it will be observed that the carrier is not only responsible for the quantity specified in the bill of lading, but the carrier is also responsible if goods are not as described in the bill of lading, and if they were not in the carrier's possession upon or prior to the date shown therein.

(i) Section 28 provides that an order bill of lading may be negotiated by the person to whose order the goods are consigned by an endorsement in blank or to a specified person. If endorsed to a specified person, it may be negotiated again by the endorsement of such person either in blank or to another specified person. Subsequent endorsement may be made in like manner.

For illustration, a shipment is consigned to

Order John Roe,
Notify John Doe,
500 Broadway,
New York, N. Y.

To properly endorse the bill of lading in blank, the endorsement should simply read JOHN ROE, or JOHN ROE per signature of some person empowered to sign John Roe's name, but if endorsed to a specified person it should read:

Deliver to order of John Doe
John Roe

If John Roe had empowered Sam Jones to endorse bills of lading, endorsement should read:

Deliver to order of John Doe
John Roe
per Sam Jones.

John Doe could then endorse the bill of lading either in blank or to the order of John Smith, and subsequent endorsement could be made by John Smith in like matter. When the bill of lading is negotiated by delivery; that is, when it is surrendered to carrier for the purpose of obtaining the goods, the person taking delivery will be required by the carrier to endorse the document and thus complete the transaction.

Chapter V

FREIGHT CLASSIFICATIONS

COLLATERAL READING: In the Freight Traffic Red Book—
Freight Classification.

Section 1

The Development of Classification

IMPORTANCE OF CLASSIFICATION.—When we realize the many thousands of kinds of commodities which are transported by railroads, the impracticability of carriers publishing a separate rate for each commodity is readily understood. Therefore, a plan was devised whereby all known commodities were divided into groups or classes, each class being assigned a specific rating and designated by a number or letter.

Classification is not only of primary importance in the construction of rates, but it is of great interest to shippers because the publication of the various ratings enables them to have their articles placed in the proper class and thus insure just and reasonable rates.

Further, the Classification serves as a guide to shippers, as it contains rules and regulations, packing requirements, and container specifications, governing the application of the different ratings, which, if intelligently complied with, assures the lowest transportation cost.

BASIC THEORY OF CLASSIFICATION.—On the basis of economic theory the justification for allotting different ratings for the various classes of commodities which are transported may be considered primarily as follows:

First, the cost of service, which is determined by operation.

Second, the value of the service as related to the commodity.

But there are many elements influencing the rating of any article, some of which are as follows: (a) the value of the article; (b) nature of the commodity, whether crude or finished; (c) manner of shipping, whether set up or knocked down, loose or in bulk, nested, or if in packages method of packing; (d) risk of article being damaged or causing damage to other commodities; (e) whether special facilities are required, such as refrigerator or heater service; (f) whether fruit or vegetables are fresh, dry, evaporated, or canned; (g) quantity in which commodity is shipped, whether carload or less-than-carload; (h) size and kind of car required; (i) length, relative weight and density of article; (j) whether article is released to a specified value or is at carrier's risk.

PHASES OF CLASSIFICATION DEVELOPMENT.—The classification of freight started shortly after the railroads began operation, commodities being very crudely divided into two classes; namely, light and heavy articles, the charges being assessed on the light articles by the cubic foot and on the heavy ones by weight. But as the volume of traffic and the variety of articles offered for shipment continued to increase with great rapidity, it was found necessary to construct more extended classifications.

The earlier classifications were prepared by each carrier for itself and therefore, classifications became quite numerous. During a hearing before the Interstate Commerce Commission it was stated by a railroad official that at one time there were 138 distinct classifications in Trunk Line Territory alone.

These classifications would no doubt appear extremely crude to one familiar with the elaborate pub-

lications which today group commodities for application thereto of the various class rates. The original compilation, however, embodied an idea the value of which is inestimable; and to the unknown minds in which it originated is due great credit—even as much as should be given to the builder of the clumsy vehicle which was the precursor of the symmetrical and luxurious motor car of the present day.

During this period of individual classification, it was impossible for a shipper to determine prior to shipment the rates applicable, nor could he ascertain the rates paid by his competitors, although there may have been a few rate experts sufficiently competent to dig out this information.

But as railroad efficiency increased and business began to expand, due to the ever increasing growth of our country, classification development kept pace, being manifested in three distinct ways; viz.

1. There was a continuous increase in the number of articles classified and assigned ratings.
2. Lower ratings were gradually being assigned to articles when shipped in carloads.
3. Ratings began to be restricted by special rules and regulations along with elaborate specifications covering containers and packing.

JUSTIFICATION FOR DISTINCTION IN RATINGS.—In the course of classification development, carload ratings increased rapidly, but at first there was great opposition to this action on the part of the less-than-carload shippers, who protested bitterly, claiming it was discrimination in favor of the large buyers, who were thus enabled to purchase goods at wholesale prices. But the protest was fruitless and the number of separate carload ratings continued to increase.

The justification for lower ratings on carload lots than on less-than-carload lots is unquestionable, for the reason that the handling of freight in carloads effects economy in use of equipment, terminal expense, and clerical detail. Carloads are generally loaded by shippers and unloaded by consignees, while less-than-carload freight is loaded and unloaded by carriers, and if forwarded via a transfer point, double handling is necessary. Furthermore, the clerical work required for making the waybill, arrival notice, freight bill, and so forth, is no greater for a shipment consisting of 60,000 pounds of merchandise than for one of 100 pounds.

The soundness of this economic theory has been clearly demonstrated; consequently, nearly all of the commodities which move in carloads have now been allotted carload ratings.

Section 2

Classification Territories and Ratings

THE THREE MAJOR CLASSIFICATIONS.—The carriers engaged in transportation in the same territory and between competitive points soon recognized that the classification, which may be said to fix the rate equally with the rate tariffs, should be uniform as far as possible. They further realized that it should be arranged to have the grouping of commodities, used in connection with their class rates, provided for in one publication, common to all lines. In carrying out these plans they achieved not only the uniformity desired, but a very considerable economy in compilation, publication, and distribution.

These objectives ultimately resulted in three distinct major classifications applicable to transportation between points in the United States. These were the

OFFICIAL, employed by lines within the territory east of the Mississippi and north of the Ohio and Potomac Rivers; the SOUTHERN, applicable within the section east of the Mississippi River and south of the Ohio and Potomac; and the WESTERN, which applies within the vast territory west of the Mississippi River to the Pacific Ocean. These three classifications reflected, in a greater or less degree, the general conditions prevailing as to traffic and operation; also, in a degree which cannot be determined or accurately approximated, the varying views of individuals or groups predicated upon similar circumstances.

CLASSIFICATION GOVERNING BETWEEN TERRITORIES.—

While each of the major classifications is designed primarily for use within the territory for which it is compiled, it becomes necessary, when specific through class rates are published between two territories each of which is subject to a different classification, to make such through rates apply in connection with one or the other, but not both. The selection of the governing classification in such cases is influenced by circumstances and expediency. The interterritorial traffic subject to through class rates (which traffic may, broadly speaking, be termed "general merchandise") has moved in greatest volume in a westerly or southerly direction, due to the fact that the manufacturing development has been longer established in the East and in the North. In the opposite direction, the traffic has consisted largely of products from the soil, the forest, and the mine, the volume of which has caused commodity rates to be made applicable thereto. Usually, when specific through class rates are provided between two or more classification territories, the same classification governs in either direction and the reason for the selection will, in most instances, be found in the circumstances attending the traffic movement to the South and West.

Tariffs applicable from points east of the Mississippi River to the Southwestern Territory are governed by the Western Classification which controls within the territory west of the Mississippi River. Tariffs in effect from points north of the Ohio and east of the Mississippi Rivers to Georgia, Alabama, and other Southern States are made subject to the Southern Classification. Tariffs applying from all territories to the Pacific Coast are governed by the Western Classification.

CLASSIFICATION COMMITTEES.—These Committees are composed of experienced transportation men who are appointed by the railroad companies for the purpose of determining rules, descriptions, packing requirements, and fixing ratings, applicable to the various commodities enumerated in the Consolidated Classification. They are known as the Official, Southern, and Western Classification Committees, having headquarters in New York City, Atlanta, and Chicago, respectively. Each committee is naturally interested in the products and industries of its own territory and, in fixing ratings, endeavors rightly to protect and foster these interests.

PRACTICAL CLASSIFICATION.—While classification of freight has been, to a large extent, based on experience, cost of operation and value of service being the primary considerations, the principal object has been to establish ratings that would increase traffic.

The present procedure of classification committees, when establishing ratings, is to make an exhaustive research in order to determine with accuracy all of the elements which are recognized as affecting the rating.

The determination of the classification rating of commodities is founded upon basic principles adopted by each of the classification committees as best adapted

to the conditions prevailing within its respective territory. The committees have continually before them requests or suggestions, originating with shippers or carriers, for changes; and when it is agreed that conditions justify it, the changes are authorized and published for the account of carriers who are parties to the classification.

The same commodity is often placed in two or more classes because of the different manner in which goods may be packed and otherwise prepared for shipment.

UNIFORM CLASSIFICATION.—There has been a persistent demand for a Uniform Classification and, if it were practicable, it would be a valuable aid to shippers in determining the charges applicable from points in one classification territory to points in another when there are no through rates in effect. It is also claimed that it would make it easier for shippers to detect discrimination.

But due to the vastness of our country, its topography, the varied climate, and the consequent diversity in agricultural products and industries, the uniform classification has not been found feasible. Each section has special traffic problems unlike those of another section which render the establishment of uniform ratings beyond the bounds of possibility.

However, the problem is still being considered and it may be eventually solved, but owing to the almost insurmountable obstacles a solution satisfactory to the varied interests is a long way off.

CONSOLIDATED CLASSIFICATION.—In this publication are consolidated the Official, Southern, and Western Classification. Until recently these classifications were published separately. There was no uniformity in rules, minimum carload weights, or ratings; and familiarity with one did not give or imply any exact

knowledge as to the others. The representatives of carriers spent years preparing to harmonize descriptions, rules, packing requirements, and minimum weights, and, so far as was practicable, to establish uniform ratings. They agreed upon a revision of descriptions, rules, packing requirements, and minimum weights, which could be generally observed, subject to some exceptions which could be readily published in understandable form, and they are now published in one issue known as the "Consolidated Classification."

The rules are, in most cases, applicable to all three classification territories, and when this is not the case it is made clear what does not and what does apply within the excepted territory. The descriptions, packing requirements, and minimum weights are uniform, with few exceptions, in connection with Official, Southern, and Western ratings.

RATINGS.—The Official Classification contains six numbered classes and two rule classes. Formerly, the Southern Classification contained six numbered classes and four lettered classes, but now there are twelve classes, numbered from 1 to 12, inclusive. The Western Classification contains five numbered classes and five lettered classes. In addition, each classification contains multiples of first class, progressing from one and one-quarter times first class up to four times first class. The ratings, or the classes to which the commodities are assigned, are shown in three parallel columns opposite the commodity description under headings Official, Southern, and Western.

It is therefore apparent that, before there can be uniform ratings, there must be unification of classes and that, with the effectiveness of a uniform classification, all class rate tariffs must be revised to conform thereto, or some plan must be devised to make the ex-

isting class rates properly applicable in connection with the new designation of classes.

There is widely varying opinion among the well-informed as to the number of different groupings which should be employed in the classification of commodities. Some hold the view that the limited number of classes in the Official do not permit the recognition of any but the grosser differences in the character of traffic; that the smaller the number of classes the more occasion there is and would be for exceptions and commodity rates. On the other hand, some contend that no workable class scale would obviate the publication of exceptions and commodity rates designed to meet conditions which it is not feasible to recognize in classification ratings.

The Consolidated Classification embraces many of the advantages claimed for a uniform classification, and approaches that as near as can be done, until some comprehensive plan for the unifying of ratings can be devised.

EXCEPTIONS TO CLASSIFICATION.—The rules, ratings, and specifications contained in the Consolidated Classification are not immutable and are subject to whatever exceptions any individual railroad or group of railroads may desire to enforce.

The "Exception to Classification" will often be found to be applicable in place of the classification otherwise governing. Not only does this apply between local points or a restricted competitive territory, but sometimes exceptions are made applicable between points within an entire classification district, and also between two or more of these territories.

These exceptions arise from an individual or group view that certain circumstances and peculiarities justify, and make advisable, a rating or rule at variance

with that obtaining under the classification otherwise governing, even though the latter may be strictly in accord with the principles generally recognized as the proper bases for the determination of ratings.

Exceptions to classification are made by individual carriers or groups of carriers when in their judgment a rule, description, or rating generally applicable is not suitable for certain traffic, presenting conditions perhaps not under consideration when adopted for general use under the classification proper.

The Exceptions to the Classification are either published in the tariff of which they are a part, or in a separate publication, known in railroad vernacular as the "Exception Sheet."

The Exception Sheet contains rules, ratings, and specifications different from those published in the Classification. When both the Classification and exception sheet are referred to in a tariff as governing the rates published therein, the rules, ratings, and specifications in the exception sheet take precedence over any contained in the Classification, except as may be specifically stated.

Frequently tariffs are issued which contain only a few exceptions to the Classification and these exceptions are shown in the tariff itself. Often, however, the exceptions to the Classification are so numerous that the carrier publishes a separate tariff containing its exceptions to the Classification. In some of the large agency tariffs it is stated on the title page that the rates named therein are governed by a specified classification and by the exceptions to this classification of the individual carriers as listed. Therefore, in determining rates applicable from a tariff containing a rule of this kind, it is necessary to consult the exception sheet of the individual carrier over whose line shipment is to be forwarded, provided it is listed

in the tariff as having published an exception sheet.

The exception sheet may provide for a different style of package, or it may authorize an estimated weight for a package rather than actual weight, or it may assign a commodity to a different class, generally lower than that authorized in the Classification, or it may provide for a different carload minimum weight, but whatever is authorized must be strictly adhered to in order to determine the rate applicable. However the rules and regulations published in a tariff take precedence over any conflicting rules and regulations published in either the Classification or exception sheet by which it is governed, unless otherwise specifically stated.

Classifications as well as exceptions are part of the rate fabric subject to the jurisdiction of the Interstate Commerce Commission; and in establishing rules, descriptions, packing requirements, and ratings, the same fundamental principles that underlie the construction of class and commodity rates are recognized.

STATE CLASSIFICATIONS.—There are a few states that publish classifications, which are used in place of the Classification for the territory in which they are located, but they apply only on traffic having origin, destination, and entire transportation within the State. Some of these states have interesting and well constructed classification, but, in ascertaining ratings applying to interstate traffic, it is necessary only to consult the Consolidated Classification or exceptions to the Classification, if any.

CLASSIFICATION ADJUSTMENTS.—One of the most important duties of a traffic manager is to obtain reasonable classification adjustments when the ratings in effect appear to be inequitable. The method by which these adjustments may be procured will be fully explained in a subsequent chapter treating of this subject.

Chapter VI

INTERPRETATION OF CLASSIFICATION

Rules 1 to 10

COLLATERAL READING: In the Consolidated Classification—
Rules 1 to 10.

KNOW THE CLASSIFICATION.—One of the essential qualifications for a traffic man is that he should thoroughly understand the Rules of the Consolidated Classification, particularly those rules which relate to the commodities of the industry in which he is engaged.

It is also necessary that the Commodity Descriptions and the Notes, as well as the Rules, should be carefully studied in order to determine the correct rating applying to articles transported. Some of these Rules, Commodity Descriptions and Notes are quite complex and are difficult to interpret; therefore, the importance of this particular branch of study is strongly emphasized; for, when correct knowledge of the Classification is acquired, not only will errors and consequent claims be avoided, but the lowest classification rating will always be obtained.

INTERPRETING THE RULES.—There is no better way of acquiring correct knowledge of these Rules than to actually handle shipments to which they apply, and so, in this interpretation, when practicable, illustrations of their application will be shown.

RULE 1. BILL OF LADING CONDITIONS.—(a) This rule provides that when property is transported subject to the provisions of the Consolidated Classification the acceptance and use of the Uniform Bill of Lading are required. Under the Uniform Bill of Lading, the liability of the carrier is specifically limited below the liability of the carrier under the common law and the Fed-

eral and State statutes applicable thereto. The shipper has the option of refusing to ship under the Uniform Bill of Lading conditions and, by paying a rate ten per cent higher, he may ship property at carrier's risk as defined by common law. By allowing this option to shippers the carriers are permitted to limit their liability, which they could not do otherwise.

(b) When the terms of the bill of lading contract are modified, a notation to that effect is made on the face of the bill of lading, which must be signed by the agent of the carrier.

(c) As the Classification covers some movements over routes which are partly rail and partly water or over water lines entirely, the rule provides that the marine risk is not assumed unless the tariff so provides.

RULE 2. PENALTIES FOR FALSE REPRESENTATION.—

(a) This rule quotes in part Section 10 of the Interstate Commerce Act, which prohibits false classification, weighing, or any other device whereby the shipper willfully attempts to defraud the carrier. The maximum penalty for a violation of this section upon conviction is a fine of \$5,000 and two years' imprisonment.

(b) It frequently occurs that merchandise is improperly packed or described through carelessness or negligence, and the carriers have inspectors whose duties are to examine shipments to ascertain if they are correctly described, and when found to be incorrectly described, corrections are issued and freight charges are collected according to proper description, shipper being promptly notified of the action taken.

To avoid liability of an infraction of these laws, it is the duty of shippers to know the correct classification descriptions of articles and the rules, and the descriptions of articles in bills of lading should conform to the classification descriptions.

RULE 3. ACCEPTANCE OF FREIGHT.—This rule provides against the acceptance of articles of extraordinary value; such as, currency, valuable papers, jewelry, etc. These should not be shipped by freight, but by express transportation or registered mail.

RULE 4. UNDESIRABLE FREIGHT.—Under this rule, carriers reserve the right to refuse certain freight, which is liable to impregnate or otherwise damage equipment or other freight, or they can accept such freight at certain periods.

RULE 5. FREIGHT MUST BE IN SPECIFIED FORM.—This rule provides that freight tendered for transportation must be in the form as specified in the separate description of articles assigned to the various classes in the Classification. Rules 40 and 41 contain definitions of containers and elaborate specifications for the construction of barrels, boxes, and other containers, so as to comply with the specific regulations, and thereby afford a safe package for transportation by the carriers.

Section 3, of this rule, provides that when the containers and packing of articles do not conform to the specifications and regulations prescribed in the separate descriptions, or in Rule 40, and articles have been received by carriers, the rating on the articles will be one class higher than that provided in the description, or in Rule 40.

Paragraph (d), of this rule, further provides that when articles have been accepted by carriers in unauthorized containers or shipping forms, the ratings will be based on the same articles in authorized containers or shipping forms, but this rule cannot be used as a basis for determining rates in advance of shipment. An explanation of the application of the rule is then shown in detail.

Examples:

1. Articles in crates would take one class higher than in barrels or boxes, whichever is the higher.

To illustrate:

Radio Receiving Sets in boxes are rated one and one-half times first class ($1\frac{1}{2}t1$), less-than-carloads; therefore, if shipped in crates, rating would be double first class (D1), or one class higher. First class rate, New York to Chicago, is 142¢, and for a shipment of this article, packed in proper container, weighing 300 pounds, charges would be:

300 lbs. @ 213¢ per 100 lbs.....\$6.39

If packed in crates:

300 lbs. @ 284¢ per 100 lbs.....\$8.52

2. Articles forwarded in pails, kits, or tubs would take two classes higher than in barrels or boxes, whichever is the higher.

To illustrate:

Dye Liquid or Paste in barrels is rated second class, less-than-carloads. If forwarded in *kits*, rating would be one and one-quarter times first class ($1\frac{1}{4}t1$), or two classes higher. Second class rate, New York to Chicago, is 124½¢, and for a shipment of this article, in the proper container, weighing 600 pounds, charges would be:

600 lbs. @ 124½¢ per 100 lbs.....\$7.47

If shipped in kits:

600 lbs. @ 177½¢ per 100 lbs.....\$10.65

3. Articles forwarded loose would take three classes higher than in barrels or boxes, whichever is the higher.

To illustrate:

Electric Meters in boxes are rated first class, less-than-carloads. If forwarded *loose*, rating would be double first class (D1), or three classes higher. For a shipment of this article, packed in proper containers, weighing 500 pounds, New York to Chicago, freight charges would be:

500 lbs. @ 142¢ per 100 lbs.....\$ 7.10

If shipped loose:

500 lbs. @ 284¢ per 100 lbs.....\$14.20

RULE 6. MARKING.—(a) This rule provides that less than carload freight must be marked *exactly* as consigned in the bill of lading, and gives details as to the method of marking. While transportation companies require their agents to compare the shipping ticket with the marks on packages and to call upon the shippers for correction, when a discrepancy between the two is found, this does not relieve the shipper of the responsibility of marking packages in accordance with the shipping ticket. Improper marking is directly responsible for the majority of stray packages.

(b) When a shipment is consigned "To Order" it must be so marked, and it must be further marked with an identifying symbol or number, which must be shown on the shipping order and on the bill of lading.

(c) When second-hand cases or goods are reshipped, all old marks must be removed or obliterated.

(d) It is unnecessary to mark freight shipped in carload quantities, but freight in excess of full cars must be marked as required for less than carload

freight, except when such excess is 20,000 pounds or more. However, if a carload shipment is to be transported by water in part of its journey, each package should bear distinguishing marks so that it may be identified in case of separation from the remainder of the shipment.

(e) All special marks and numbers must appear in the bill of lading.

(f) It is also permissible to show such special marks as "Glass," "Keep Dry," "This Side Up," "Handle with Care," etc.

RULE 7. CONSIGNMENT OF FREIGHT.—This rule provides that the name of only one shipper, one consignee, and one destination shall appear in the bill of lading, unless the shipment is consigned to order of the shipper or some other party; in which event the name of the party to be notified upon arrival at destination may be shown.

In any event, all this information, except the name of shipper, which is shown on the bill of lading, must be shown on packages when forwarded in less-than-carload quantities. However, it is always advisable, in forwarding a straight consignment, to have the name and address of shipper marked on the packages.

This rule permits showing in bill of lading the points at which shipments are to be stopped in transit when such stoppage is authorized by the carrier's tariffs.

When an "Order" bill of lading is lost or delayed the property may be delivered upon receipt by the carrier's agent of a certified check, or cash in lieu of check, for an amount equal to one hundred and twenty-five per cent of the invoice or value of the property, or at the carrier's option, upon a receipt of a bond for twice the

amount of the invoice or value of the property, or the carrier may accept a blanket bond. The latter arrangement is often made by large receivers of "Order" shipments in order to avoid delay in delivery, but the surety, amount and form of the bond must be satisfactory to the carrier.

RULE 8. ADVANCE CHARGES.—Under this Rule the carriers must not pay the shippers, or their draymen or warehousemen, any charges and carry those charges forward on their billing to be collected from the consignee.

RULE 9. SHIPMENTS NOT WORTH CHARGES.—When in the judgment of the agent at point of shipment the property would not at forced sale realize the charges, a prepayment of the charges must be made or payment guaranteed.

RULE 10. MIXED CARLOADS.—This Rule is very complex and it is quite difficult to understand. Without question a whole chapter could be written in explanation of its different provisions.

Under Sections 1 and 2 of this rule, except as otherwise provided, a number of different articles for which carload ratings are provide may be forwarded in one car by one consignor to one consignee and destination, if shipped at one time in a carload, at the carload rate applicable to the highest classed article, and at the highest carload minimum weight provided for any of the articles.

Section 4 of this rule is an exception to Sections 1 and 2 and provides that, when the aggregate charge upon the entire shipment is less on the basis of carload rate and minimum carload weight for one or more of the articles, and on actual weight at less-than-carload rate for the other article or articles, the shipment will be charged accordingly. This section, therefore, renders

it permissible to load less-than-carload lots of different classes with a carload lot under certain conditions without penalizing the carload shipment.

To illustrate the application of Section 1 and Section 4, the following examples are given:

Section 1:

A shipment from Philadelphia, Pa., to St. Louis, Mo., consists of:

| | Actual | Minimum | O.C. | |
|--------------------|-------------|-------------|---------|------|
| | Weight | C.L.Wt. | L.C.L.— | C.L. |
| | | | Rating | |
| Linoleum in crates | 18,000 lbs. | 30,000 lbs. | 2 | 4 |
| Rubber mats in | | | | |
| bales | 6,000 lbs. | 30,000 lbs. | 2 | R-26 |
| Refrigerators S.U. | 3,000 lbs. | 18,000 lbs. | 2 | 4 |

The second, Rule 26, and fourth class rates from Philadelphia to St. Louis are 139½¢, 87¢ and 75¢ respectively, and shipment would be billed thus:

27,000 lbs. as 30,000 lbs. @ 87¢ per 100 lbs. . . . \$261.00

Section 4:

A shipment from Bridgeport, Conn., to Atlanta, Ga., consists of:

| | Actual | Minimum | S.C. | |
|-----------------------|-------------|-------------|---------|------|
| | Weight | C.L.Wt. | L.C.L.— | C.L. |
| | | | Rating | |
| Linoleum in crates | 20,000 lbs. | 30,000 lbs. | 2 | 4 |
| Carpet in bales . . . | 4,000 lbs. | 20,000 lbs. | 1 | 2 |
| Printed Advertising | | | | |
| Matter in | | | | |
| boxes | 3,000 lbs. | 24,000 lbs. | 2 | 3 |

The first, second, third, and fourth class rates from Bridgeport to Atlanta are 209¢, 178¢, 146¢, and 115¢, respectively, and shipment would be billed thus:

| | |
|--|----------|
| 20,000 lbs. as 30,000 lbs. @ 115¢ per 100 lbs... | \$345.00 |
| 4,000 lbs. @ 209¢ per 100 lbs... | 83.60 |
| 3,000 lbs. @ 178¢ per 100 lbs... | 53.40 |
| | <hr/> |
| Total... | \$482.00 |

If the charges on this shipment were based on the provisions of Section 1 they would be as follows:

The highest carload rating is second class, and the highest minimum weight is 30,000 pounds, therefore the shipment would be billed:

| | |
|--|----------|
| 27,000 lbs. as 30,000 lbs. @ 178¢ per 100 lbs... | \$534.00 |
|--|----------|

It will be observed that the aggregate charge on this shipment would be in accordance with the provisions of Section 4 because the application of that Section makes a lower charge.

If the charges on the shipment illustrating the application of the provisions of Section 1 were based on the provisions of Section 4, they would be as follows:

| | |
|--|----------|
| 18,000 lbs. as 30,000 lbs. @ 75 ¢ per 100 lbs... | \$225.00 |
| 6,000 lbs. @ 139½¢ per 100 lbs... | 83.70 |
| 3,000 lbs. @ 139½¢ per 100 lbs... | 41.85 |
| | <hr/> |
| Total.. | \$350.55 |

It will be observed that the correct charge on this shipment is in accordance with the provisions of Section 1 because the application of that Section makes a lower charge.

Section 3 of this rule provides that when the aggregate charge upon the entire shipment is made lower by considering the articles as if they were divided into two or more separate carloads the shipment will be charged accordingly, as follows:

- (a) Under the Official Classification, the charges

on each separate carload will be based upon the carload rate applicable to the highest classed article therein and the carload minimum weight for each separate carload will be the highest provided for any articles in such separate carload.

(b) Under the Southern and Western Classifications, the same provisions apply, except if one of the carloads is subject to a commodity rate the carload minimum weight applicable to that rate will apply on such carload.

An illustration of paragraph (a) is as follows:

A shipment from New York City to Rockford, Ill., consists of:

| | Actual Weight | Minimum C.L.Wt. | O.C. Rating L.C.L.—C.L. | |
|-------------------------------------|------------------|--------------------|-------------------------------|---|
| 300 bxs. Canned Tomatoes . . . | 21,000 lbs. | 36,000 lbs. | R-26 | 5 |
| 150 bxs. Ground Spices | 15,500 lbs. | 30,000 lbs. | 2 | 4 |
| 100 bxs. Baking Powder | 14,000 lbs. | 36,000 lbs. | 3 | 5 |
| 100 bxs. Cocoa in cans | 13,000 lbs. | 30,000 lbs. | 3 | 4 |

The second, third, Rule 26, fourth and fifth class rates from New York City to Rockford are 139½¢, 106¢, 85¢, 74¢, and 63½¢, respectively, and shipment would be billed thus:

| | |
|--|--------------------|
| 35,000 lbs. as 36,000 lbs. @ 63½¢ per 100 lbs. . . . | \$228.60 |
| 28,500 lbs. as 30,000 lbs. @ 74 ¢ per 100 lbs. . . . | 222.00 |
| | Total . . \$450.60 |

If these consignments were forwarded as individual shipments on separate bills of lading, charges would be:

| | |
|------------------------------------|----------|
| 21,000 lbs. @ 85 ¢ per 100 lbs... | \$178.50 |
| 15,500 lbs. @ 139½¢ per 100 lbs... | 216.23 |
| 14,000 lbs. @ 106 ¢ per 100 lbs... | 148.40 |
| 13,000 lbs. @ 106 ¢ per 100 lbs... | 137.80 |

Total...\$680.93

If the shipment was billed at the total actual weight at the carload rate for the highest classed article, as provided in Section 1, charges would be:

63,500 lbs. @ 74¢ per 100 lbs.....\$469.90

An illustration of paragraph (b) is as follows:

A shipment from Baltimore, Md., to Tulsa, Oklahoma, consists of:

| | Actual Weight | Minimum C.L. Wt. | W.C. Rating | |
|----------------------------------|------------------|---------------------|----------------|------|
| | | | L.C.L.— | C.L. |
| 100 bxs. Electric Fans | 20,000 lbs. | 30,000 lbs. | 1 | A |
| 50 bxs. Roasted Ground Coffee | 4,000 lbs. | 30,000 lbs. | 4 | 5 |
| 20 bbls. Grape Juice | 9,000 lbs. | 36,000 lbs. | 2 | 5 |
| 500 bxs. Canned Vegetables .. | 32,000 lbs. | 36,000 lbs. | 4 | 5 |

The first, second, fourth, Class A and fifth class rates from Baltimore to Tulsa are 285¢, 242¢, 157¢, 128¢, and 114¢, respectively, but a commodity rate of 100¢ per 100 pounds, minimum carload weight 36,000 pounds, applies to the Canned Vegetables, so charges would be:

| | |
|---|----------|
| 33,000 lbs. as 36,000 lbs. @ 128¢ per 100 lbs.... | \$460.80 |
| 32,000 lbs. as 36,000 lbs. @ 100¢ per 100 lbs.... | 360.00 |

Total...\$820.80

If these consignments were forwarded as individual shipments on separate bills of lading, charges would be:

| | |
|--|-----------|
| 20,000 lbs. as 30,000 lbs. @ 128¢ per 100 lbs... | \$ 384.00 |
| 4,000 lbs. @ 157¢ per 100 lbs... | 62.80 |
| 9,000 lbs. @ 242¢ per 100 lbs... | 217.80 |
| 32,000 lbs. as 36,000 lbs. @ 100¢ per 100 lbs... | 360.00 |

Total..\$1024.60

If the shipment was billed at the total actual weight at the carload rate for the highest classed article, as provided in Section 1, charges would be:

65,000 lbs. @ 128¢ per 100 lbs...\$832.00

Chapter VII

INTERPRETATION OF CLASSIFICATION

Rules 11 to 24

COLLATERAL READING: In the Consolidated Classification—
Rules 11 to 24.

STUDY THE CLASSIFICATION.—This chapter is a continuation of the interpretation of the Classification Rules. Again we would emphasize the importance of a comprehensive understanding of these rules; for this knowledge is not only requisite for intelligent shipping, but it is also the principal element in building a firm foundation for advance study.

RULE 11. WEIGHTS.—Under this rule, the principle is provided that charges shall be computed on gross weights, except where estimated weights are authorized. When *estimated* weights are authorized they must be used regardless of *actual* weights, but where shipments are forwarded in carloads the established carload minimum weights must be observed.

RULE 12. HOW CHARGES ARE ASSESSED.—The provisions of this rule are subject to the minimum charges provided in Rule 13.

(a) Under this rule, it is provided that single less-than-carload shipments of one class, or single less-than-carload shipments of two or more classes, when each class is in a separate package, shall be charged at actual or authorized estimated weight, and at the rating applicable to each class.

(b) This rule further provides that a package containing articles of more than one class shall be charged at the rating for the highest classed article contained in the package, and on shipments subject to carload rating the highest carload minimum weight will apply.

Example of application of paragraph (a).

A single shipment from Baltimore, Md., to Chicago, Ill., consists of three packages, weighing 40 pounds, 60 pounds, and 300 pounds, respectively, containing articles subject to ratings of first, second, and fourth classes, respectively.

The first, second, and fourth class rates are 134¢, 116½¢, and 63¢. Freight bill would read as follows:

| | |
|---------------------------------|-------|
| 40 lbs. @ 134 ¢ per 100 lbs.... | \$.54 |
| 60 lbs. @ 116½¢ per 100 lbs.... | .70 |
| 300 lbs. @ 63 ¢ per 100 lbs.... | 1.89 |

Total...\$3.13

Examples of application of paragraph (b).

If the articles contained in the shipment described in paragraph (a) were packed in one case, the first class rate would apply, and freight bill would read:

400 lbs. @ 134¢ per 100 lbs....\$5.36

In making out the bill of lading, only the highest rated article would be specified, followed by the notation "and other articles classified lower."

If a single shipment consisted of packages containing articles subject to different carload ratings, and the aggregate weight was 15,000 pounds, the carload rating for the highest classed article being second class, and the highest carload minimum weight for any article being 20,000 pounds, using the Baltimore to Chicago second class rate, shipment would be charged:

15,000 lbs. as 20,000 lbs. @ 116½¢....\$233.00

In making out the bill of lading, one of the articles taking the highest rating, and one of the articles taking the highest carload minimum weight, must be specified,

followed by the notation "and other articles classified the same or lower."

RULE 13. MINIMUM CHARGE.—Unless otherwise provided.

(a) Under this rule, the minimum charge for a single shipment of less-than-carload freight from one consignor to one consignee on one bill of lading shall be 100 pounds at the class or commodity rate applicable thereto, except,

(b) If classified higher than first class, the minimum charge shall be for 100 pounds at first class.

(c) If the shipment contains articles of two or more classes, and no article is classified higher than first class, minimum charge shall be for 100 pounds at the rate applicable to the highest rated article, except if any one article is classified higher than first class, the minimum charge shall be for 100 pounds at the first class rate.

(d) In no case, however, shall the charge on a single shipment be less than fifty cents. When a less-than-carload shipment moves under a rate made by a combination of separately established rates, whether each component is governed by the same or different Classifications; i.e., by Official, Southern, or Western Classification, the minimum charge of fifty cents will apply to the continuous through movement and not to each of the factors.

In Section 2 of this rule, it is provided that the minimum charge for carload shipments shall be fifteen dollars (\$15.00) per car, but this rule does not apply to switching service, nor to certain articles specifically named in this section.

The following examples demonstrate the application of this rule. The first, second, and third class rates,

New York City to Chicago, are 142¢, 124½¢, and 94½¢, respectively, which rates will be used in the examples given below.

(a) A shipment, weighing 60 pounds and rated at first class, would be charged:

60 lbs. as 100 lbs. @ 142¢ per 100 lbs....\$1.42.

(b) A shipment, weighing 60 pounds and rated one and one-half times first class (1½t1), would be charged in like manner; i.e.,

60 lbs. as 100 lbs. @ 142¢ per 100 lbs....\$1.42,
because one and one-half times 142¢ are 213¢, and

60 lbs. @ 213¢ per 100 lbs....\$1.28,
which amount is less than the minimum charge.

A shipment of like weight, rated at two and one-half times first class (2½t1), would be charged at actual weight at this rating, because two and one-half times 142¢ are 355¢, and

60 lbs. @ 355¢ per 100 lbs....\$2.13,
which amount is greater than the minimum charge.

(c) A shipment, consisting of two packages, weighing 40 pounds and 50 pounds, respectively, rated at second and third class, respectively, would be charged as follows:

90 lbs. as 100 lbs. @ 124½¢ per 100 lbs....\$1.25,
because

40 lbs. @ 124½¢ per 100 lbs....\$.50

50 lbs. @ 94½¢ per 100 lbs.... .47

Total....\$.97,

which amount is less than the minimum charge.

(d) A shipment, weighing 50 pounds and rated at third class, would be charged:

50 lbs. for.....\$.50, because
50 lbs. @ 94½¢ per 100 lbs.....\$.47,

which amount is less than the minimum charge of fifty cents.

RULE 14. CARLOAD RATES.—(a) This rule provides that, in order to entitle a shipment delivered at the railroad station to the carload rate, it must be shipped by one consignor, on one bill of lading; the entire shipment must be delivered on the same day, and shipped to one consignee, at one destination. However, it must be borne in mind that, when carload shipments are loaded by shippers on or into cars placed on team tracks or private sidings, in accordance with the demurrage rules, 48 hours are allowed for the completion of the loading.

(b) The minimum carload weight provided is the lowest weight on which the carload rating or rate will apply.

RULE 15. CHARGES FOR L. C. L. SHIPMENTS.—(a) This rule provides that the charge for a less-than-carload shipment must not exceed the charge for a minimum carload of the same freight at the carload rate; and, if the car is loaded to its full capacity the charge must not exceed the charge for the actual weight as a less-than-carload shipment.

(b) If a shipment offered as less-than-carload freight is loaded by carriers and is found to be subject to the carload rate, a charge of 2½¢ per 100 pounds at actual weight will be made for loading, and if the carrier unloads the car, a like charge of 2½¢ per 100 pounds at actual weight will be made, unless carrier's tariffs provide that the cost of loading and unloading is included in the carload rate.

(c) If a shipper loads a car with insufficient weight for the car to go forward as a carload shipment, and if the carrier forwards the car without loading any other freight therein, the shipper will be compelled to pay charges based on the minimum carload weight for the freight thus shipped.

RULE 17. ARTICLES NOT SPECIFICALLY PROVIDED FOR.—The Classification does not provide for all articles of commerce, so under this rule articles not specifically provided for, which cannot be covered by the N.O.I.B.N. (meaning “not otherwise indexed by name”) description, may be rated at the classification for analogous articles.

RULE 18. COMBINATION ARTICLES.—When combination articles, such as a combination Ironing Board, etc., are not specifically classified, they will be charged at the rating for the highest classed article of the combination, and on shipments subject to carload rating the minimum weight will be that provided for the article taking the highest rating.

RULE 19. KNOCKED DOWN ARTICLES.—This rule provides that, in order to obtain the ratings for K.D. articles (meaning “knocked down”) they must be taken apart in such a manner as to reduce materially the space occupied.

RULE 20. PARTS OR PIECES CONSTITUTING A COMPLETE ARTICLE.—This rule provides that an article of several pieces (like an Extension Table, with the table leaves in a separate crate), on one bill of lading, will be charged at the rating provided for the complete article.

RULE 21. NESTED.—(a) Under the term “nested,” three or more different sizes of an article for which the nested specification is provided, must be enclosed, each smaller within each next larger article; or three or more of the articles, for which a “nested” specification is provided, must be placed one within the other

so that each upper article will not project above the next lower article more than one-third of its height.

(b) If articles of different name or material are nested, whether grouped in one description or shown separately, the nested ratings are not applicable.

RULE 23. CARLOADS DELIVERED TO MORE THAN ONE CONSIGNEE.—If the owner requests that a carload shipment be delivered to more than one consignee, a less-than-carload rate will be applied on the entire shipment.

RULE 24. FREIGHT IN EXCESS OF FULL CARLOADS.—When a shipment, the authorized minimum weight for which is 30,000 lbs. or more, is forwarded in compliance with Rule 14, each car, except the one carrying the excess, must be loaded as heavily as loading conditions will permit; and each car so loaded will be charged at the actual or estimated weight, subject to the established minimum carload weight and at the carload rating applicable.

(a) If the excess over the quantity loaded in a closed car is loaded in another closed car, it shall be charged at the actual or authorized estimated weight, on the basis of the carload rating applicable on the entire shipment.

(b) If the excess over the quantity loaded on an open car is loaded on another open car, it shall be charged at the actual or authorized estimated weight, on the basis of the carload rating applicable on the entire shipment, subject to a minimum charge of 4,000 lbs. at first class rate.

(c) The freight in excess of full cars must be marked as required for less-than-carload freight, in accordance with Rule 6.

(d) Section 7 of this rule contains a number of exceptions to the application to the rule and it does not

apply when specified items in the Classification provide otherwise; nor is it applicable to freight, the authorized recognized minimum carload weight for which is less than 30,000 lbs.; nor on freight, the minimum carload weights for which are subject to Rule 34, nor on freight subject to Rule 29.

Illustrations are as follows:

1. A shipment of 40,000 lbs., consisting of a commodity entitled to a minimum carload weight of 30,000 lbs., is loaded in two cars; 30,000 lbs. being loaded in a closed car and 10,000 lbs. being loaded in another closed car. The 10,000 lbs. would be charged at the actual weight and carload rate applicable.

2. A shipment of 49,000 lbs., consisting of a commodity entitled to a carload minimum weight of 40,000 lbs., is loaded on two open cars; 41,000 lbs. being loaded on one open car, and 8,000 on another open car. In this illustration we will assume the commodity is entitled to the fifth class rate and will use the fifth class rate, New York to Chicago. The shipment, as described, would be billed as follows:

| | |
|--------------------------------------|----------|
| 41,000 lbs. @ 56½¢ per 100 lbs..... | \$231.65 |
| 8,000 lbs. as 4,000 lbs., 1st class, | |
| @ \$1.42 per 100 lbs..... | 56.80 |
| | <hr/> |
| Total..... | \$288.45 |

If the excess freight at the carload rate amounted to more than the minimum charge of 4,000 lbs. at first class rate, the excess would be charged for on the basis of actual weight at the carload rate. For example, if shipment weighed 52,000 lbs. and 11,000 lbs. excess was loaded on to the second car, the entire lot would be billed at the carload rate because

11,000 lbs. @ 56½¢ per 100 lbs. = \$62.15
and exceeds the minimum charge of \$56.80.

Chapter VIII

INTERPRETATION OF CLASSIFICATION

Rules 27 to 44

COLLATERAL READING: In the Consolidated Classification—Rules 27 to 44; in the Freight Traffic Red Book—Dunnage and Bracing.

ADEPTNESS ACQUIRED.—This chapter concludes the interpretation of the Classification Rules, but the Problem Sheets relating to subsequent chapters will contain many problems which, in order to determine the correct solutions, an extensive knowledge of these rules will be required.

In that part of the course, treating of Tariff Interpretation and Claims, constant consultation of the Classification will be necessary. The correct interpretation of the complex ratings and commodity descriptions, some of which are not easily understood, will be given by examples demonstrating their application, thereby enabling students to acquire adeptness in securing the lowest possible ratings and thus effect shipping economy.

RULE 27. LOADING AND UNLOADING CARLOAD FREIGHT.
—(a) Under this rule, owners are required to load and unload carload freight, except where this is not practicable, as in the case of some cities where freight is received over platforms and loaded by the carriers.

(b) When less-than-carload shipments, on account of their weight or bulk, cannot be handled by regular station employes, or where the carriers' facilities for handling are not sufficient, such freight must be loaded or unloaded by the owners.

(c) The carriers' rules regulating safe loading and protection of equipment must be observed. Lading

must be securely blocked or braced and when in enclosed cars must be away from car doors. The weight of lading must be approximately equal on each side of the car.

(d) When articles are loaded on open cars, small detachable parts must be removed and placed in wooden boxes or secured with the article. Boxes must be encircled at ends with iron straps and securely attached to the article or to the floor of the car. Such boxes must be specified in bill of lading.

RULE 29. CARLOAD SHIPMENTS REQUIRING TWO OR MORE CARS.—This rule provides that when a carload shipment, on account of length of the articles, requires two or more open cars, the weight to be charged for the series is determined as follows:

The rates used in the examples illustrating the provisions of this Rule are the New York City to Chicago first, second, third, and fifth class rates; namely, 142¢, 124½¢, 94½¢, and 56½¢, respectively.

(a) If the articles constituting the shipment are subject to Rule 34, to the minimum weight of the longest car add for each additional car either 24,000 pounds or the minimum weight prescribed for such additional car, if it is lower.

Example:

A shipment consists of articles which, on account of length, are loaded on two open cars, total weight 22,000 pounds, the first car being 38 feet long and the second 36 feet, rated third class, carload minimum weight 12,000 pounds, subject to Rule 34. Under the provisions of Rule 34, the minimum weight for the longer car is 12,720 pounds and the minimum weight for the second car is 12,000 pounds. Therefore, shipment would be charged:

22,000 lbs. as 24,720 lbs. @ 94½¢ per 100 lbs. . . \$233.42

(b) If the articles constituting shipment are not subject to Rule 34, to the minimum weight provided for one car add 24,000 pounds for each additional car.

Example:

A shipment consists of articles which, on account of length, are loaded on three cars, total weight 66,000 pounds, rated fifth class, carload minimum weight 36,000 pounds. In accordance with this Rule, shipment would be charged:

66,000 lbs. as 84,000 lbs. @ 56½¢ per 100 lbs...\$474.60

No series may consist of more than four cars. If more than four cars are used, the additional car or cars will be considered as a new series.

Section 2 provides that when a less-than-carload shipment requires, on account of length, more than one car, actual weight will be charged at authorized rating, but not less than 7,500 pounds at first class rate for each car used.

Example:

A shipment consists of articles which, on account of length, requires two cars, total weight 8,000 pounds, rated third class. In accordance with this section, shipment would be charged:

8,000 lbs. as 15,000 lbs. @ 142¢ per 100 lbs...\$213.00

In Section 3, it is provided that

(a) Unless otherwise provided in separate description of articles, a shipment containing articles, the spatial dimensions of which do not permit loading through the side doorway of a closed car not more than 36 feet long, without the use of end door or window, shall be charged at actual weight at authorized ratings, subject to a minimum charge of 4,000 pounds at first class rate for the entire shipment.

Example:

A shipment contains an article of such spatial dimensions that it cannot be loaded through the side doorway of a 36 foot closed car, without use of end door, total weight of shipment 4,500 pounds, less-than-carload rating second class. Therefore, shipment would be charged:

4,500 lbs. as 4,000 lbs. @ 142¢ per 100 lbs. . . . \$56.80
 because on the basis of actual weight charges would be:
 4,500 lbs. @ 124½¢ per 100 lbs. . . . \$56.03,
 which amount is less than the minimum charge.

(b) Under the provision of this paragraph, unless a lower rate is provided, a shipment which contains an article exceeding 22 feet, but not exceeding 34 feet in length, and not exceeding 12 inches in diameter or other dimension, will be charged at actual weight at authorized rating, subject to a minimum charge of 1,000 pounds at the first class rate for the entire shipment:

Example:

A shipment contains an article 25 feet long and 6 inches in diameter, total weight 1,080 pounds, rated second class. Therefore, shipment would be charged:

1,080 lbs. as 1,000 lbs. @ 142¢ per 100 lbs. . . . \$14.20
 because on the basis of actual weight charges would be:
 1,080 lbs. @ 124½¢ per 100 lbs. . . . \$13.45,
 which amount is less than the minimum charge.

RULE 30. TEMPORARY BLOCKING, ETC.—This rule provides that temporary blocking, racks, supports, dunnage, etc., used to protect and make freight secure for shipment, must be furnished and installed by shipper and at his expense.

No allowance is made for dunnage, etc., except when required for safe transportation of freight loaded on

open cars. The maximum allowance is 500 pounds per car, and in no case will less than the established minimum carload weight be charged. Shippers must specify on the shipping order the weight of the material used in order to secure the weight allowance.

No weight allowance is made on dunnage, etc., used by shippers for part carloads in excess of full carloads.

In the Freight Traffic Red Book, under the caption "Dunnage and Bracing," appears an instructive treatise, which students are requested to carefully read in order that they may acquire a comprehensive understanding of this subject.

RULE 31. REFRIGERATION AND HEATER SERVICE.—This rule provides that carload rates do not include expense for refrigeration unless otherwise provided. Charges for refrigeration and conditions for furnishing heater service, etc., will be found in carriers' Special Service tariffs.

RULE 34. MINIMUM CARLOAD WEIGHTS.—This rule provides that, in ordering a car, the shipper must specify the dimensions of the car desired. If this is not done and freight is loaded in a car of greater dimensions than required for the transportation of the particular commodity, the minimum weight for the car used will be charged.

In the list of commodities, the minimum carload weights for many articles are shown as "Subject to Rule 34." This means that the articles are entitled to the minimum weight stated, provided they are loaded in a car not over 36 feet 6 inches in length, or provided the shipper has ordered a car not to exceed these dimensions.

The following is an illustration:

Hand Cultivators, loose or in packages, are entitled

to a carload minimum weight of 24,000 lbs., subject to Rule 34. This means that if the shipper ordered a car not over 36 feet 6 inches in length, this minimum weight of 24,000 lbs. would apply on the shipment, even though the carrier furnished a car of greater dimensions. If the shipper did not specify that he desired a car of dimensions not exceeding 36 feet 6 inches, and the carrier furnished a car of greater dimensions, the shipper would be compelled to pay charges based on the minimum weight of the car furnished: For example, assume that the car furnished was a 38 foot car, then the carload minimum weight would be increased to 25,440 pounds.

Carrier has six days to comply with shipper's order, and if within that time he is unable to furnish a car of the desired length and furnishes a longer car, the minimum weight will be that fixed for the car ordered, except if the car used is loaded to its capacity, the minimum weight will be that fixed for that car, or

If carrier furnishes two cars in place of the one ordered, if of different lengths and subject to different minimum weights when loaded singly, charge will be at the minimum weight for the longer car and at actual weight for the other car at the carload rate, but the weight charged will not be less than the minimum weight fixed for the car ordered.

Section 6 (a) contains a table showing minimum weights applicable on articles made subject to Rule 34 when loaded in cars of greater length than 36 feet 6 inches.

(b) This is an important paragraph and it may require explanation. The base weight is the carload minimum weight fixed in the description of an article subject to Rule 34 that entitles it to the application of the carload rate. Some articles, subject to this Rule,

are given base weights which are not shown in the table referred to in paragraph (a), and to determine the minimum weight that would apply in such cases, the table shown in this paragraph must be used: For example, assume the minimum carload weight for a commodity is 40,000 lbs., subject to Rule 34, and it is loaded in a car 42 feet long, the minimum weight for the car used would be determined thus:

$$122\% \text{ of } 40,000 \text{ lbs.} = 58,800 \text{ lbs.},$$

which would be the minimum weight fixed for the car used.

RULE 35. TANK CARS.—This Rule relates to tank cars, and although ratings are provided for freight in tank cars, carriers are not obligated to furnish them.

Important provisions of this rule are: (a) The carload minimum weight of shipments in tank cars is the shell gallonage capacity of the tank, but the minimum weight shall not be less than 26,000 pounds for cars constructed since 1927. (b) Cars must not be overloaded, and if the freight is of such weight per gallon that a full tank load would exceed the weight carrying capacity of the car, then the weight carrying capacity will be considered the carload minimum weight. (c) If the lading extends into the dome of the tank, the weight of the quantity in the dome must be added to the weight computed on the shell gallonage capacity, and the total of these weights must be furnished by the shipper.

RULE 36. DISPOSITION OF FRACTIONS IN COMPUTING RATES.—In computing rates based on a multiple or proportion of another rate, unless otherwise provided in a tariff, fractions of less than $\frac{1}{4}$ are dropped and fractions of $\frac{3}{4}$ or greater are increased to the next whole figure, thereby permitting only the use of the fraction $\frac{1}{2}$.

For example: The first class rate, New York to Cincinnati, Ohio, is \$1.23½, and 1½ times this rate is \$1.85¼; but in accordance with this rule the rate assessed would be \$1.85½.

RULE 37. SWITCHING, DEMURRAGE, ETC.—This rule provides that rates shown in tariffs governed by this Classification are subject, at points of origin and destination, to the rules, regulations and charges covering demurrage, storage, switching, and other terminal privileges, etc., contained in tariffs on file with the Interstate Commerce Commission.

RULE 38. APPLICATION OF COMMODITY RATES.—This rule provides that when a commodity rate is established it removes the application of the class rates to and from the same points on that commodity, except when the tariff provides for the alternative use of class and commodity rates when one makes a lower charge.

RULES 40 AND 41. SPECIFICATIONS FOR CONTAINERS.—These rules contain specifications as to the construction of containers, which must be complied with in order to obtain the lowest ratings applicable to commodities. A careful study of these rules should be made, because the shipper should be thoroughly familiar with the requirements and specifications contained therein in order that he may obtain the lowest classification rating on his shipment. A full understanding of not only these rules, but of all the rules of the classification is one of the most valuable qualifications of a traffic manager.

RULE 44. FOURTH SECTION DEPARTURES.—This rule provides that whenever it is brought to the attention of carriers parties to this publication that classification changes have caused a higher rate or charge for a shorter than for a longer haul over the same route in the same direction, the shorter being included in the

longer, such changes will be corrected on one day's notice to the Commission and public by reducing such higher rate or charge to the rate or charge on like traffic for the longer haul, or by reducing a through rate or charge which is higher than the aggregate of the intermediate rates or charges subject to the Interstate Commerce Act to the amount of such aggregate intermediate rates or charges, and carriers further agree that on all shipments on which such higher rates or charges are collected, in situations not authorized, application will be made promptly to the Interstate Commerce Commission for authority to make reparation.

Chapter IX

FREIGHT CARS — WEIGHING

COLLATERAL READING: In the Freight Traffic Red Book—Traffic Abbreviations; Traffic Glossary; Private Car Service; Car Mileage Allowance; Weights and Weighing.

Section 1

Suiting the Car to the Commodity

VARIETIES OF CARS.—There are tens of thousands of different commodities transported by freight from place to place in our country. The great bulk of this freight is carried in the regular cars which each railroad has standardized for itself; such as, box cars, flat cars, gondola cars, stock cars, coal cars, and other types of special cars.

PRIVATE CARS.—In the early sixties, there developed a need for special cars to transport certain kinds of freight. The railroads could not, or would not, build these cars; so they were built by individuals or companies for their private use. The beef packers, the coal operators, and the oil companies soon established their own lines of special cars—*private cars*, as they are called. These cars are now known as refrigerator, heater, tank, live poultry, stock, coal, and palace horse cars. Other types of private cars will undoubtedly be devised as new kinds of freight are developed. Since the introduction of private cars as a means of railroad transportation, the building of such cars has increased quite rapidly, there being at the present time over 300,000 in operation.

MILEAGE ALLOWANCES.—The owners of private cars receive from the carriers a mileage allowance for the distance car travels both loaded and empty; that is, the

loaded car is hauled to destination and, when unloaded, the carrier must return the car to shipper, the mileage allowance applying on both movements. Mileage Allowances vary from six mills per mile to two cents per mile, different allowances being made on the various types of cars, and these allowances are published in a Mileage Tariff.

EQUALIZATION OF MILEAGE ALLOWANCES.—Under the tariff rules it is necessary that all empty mileage allowances earned by movement of cars be equalized with loaded mileage allowances within a certain specified period; that is, if the empty mileage allowances paid by carriers exceed the loaded mileage allowances, the amount of such excess payments must be refunded to carriers by owners.

LEASED PRIVATE CARS.—When owners of private cars lease them to others, the lessees must have their names stencilled or otherwise placed on cars, and they, then, obtain the allowances and benefits accorded to car owners unless otherwise specifically provided in the terms of the lease.

THE INCREASE IN CAR SIZES.—All freight is transported in bulk, in packages, or in special containers. The weight of shipments in a single car has been increased in accordance with the carrying capacity of the car. This increase has been very noticeable in the past 45 years. In 1875 the normal car capacity was 20,000 pounds, but now few cars of less than 60,000 pounds capacity are used, and many have a capacity of 80,000 pounds. Steel cars for special coal and ore traffic, with a capacity of 100,000 to 120,000 pounds, are also generally used. The size of packages carried on or in flat cars has also been increased, but the dimensions cannot exceed certain limits set by tunnels, bridges, and other physical restrictions.

RAILWAY EQUIPMENT REGISTER.—The Official Railway Equipment Register is a publication issued by the United States, Canadian and Mexican Railroads, through an authorized agent. It is published monthly and shows by car numbers, the marked capacity, length, dimensions and cubical capacity of freight cars used to transport freight. This tariff shows the various kinds of cars of the different railroads and gives also the inside measurements, width of doors, both side and end, for all box cars.

HOW TO ORDER SUITABLE CARS.—When ordering cars shippers should consult the Railway Equipment Register and selection should be governed by the nature of the commodity. Certain commodities require protection from heat or cold and are forwarded in special cars built for that purpose. Other commodities, for the purpose of protection, are loaded in box cars rendered rain and snow proof, and under lock or seal. Some commodities are light and bulky and require large cars; some are loaded in bulk; some are loaded in open cars, because they are not affected by weather conditions, or the danger of pilfering, or because they are too heavy or are of too great dimensions to be loaded in box cars.

Some articles are of such length as to require two or more open cars to transport them. Cars used in this way are illustrated on page 95, and are defined as follows:

1. When two cars are used to transport a commodity which is too long to be loaded on one car, the weight being equally divided between them, they are termed "twin" cars.

2. When a commodity is too long to be loaded on one car and requires two or more cars, those used are termed a "series." No series can exceed four cars.

3. Empty cars are frequently used for protection of a commodity too long to be loaded on one or two cars, and are coupled either before or after the loaded car, or between two loaded cars. The empty cars so used are termed "idlers."

Section 2

Weights and Weighing

DEFINITIONS OF WEIGHTS.—There are a number of different weight terms used in traffic, the most important being as follows:

GROSS WEIGHT: The weight of a car and its contents, or the weight of a container and its contents.

TARE WEIGHT: The weight of an empty car or of an empty container.

NET WEIGHT: The weight of the contents of car or container.

ESTIMATED WEIGHT: The weight prescribed in tariffs for commodities shipped in specified containers or in a specified manner.

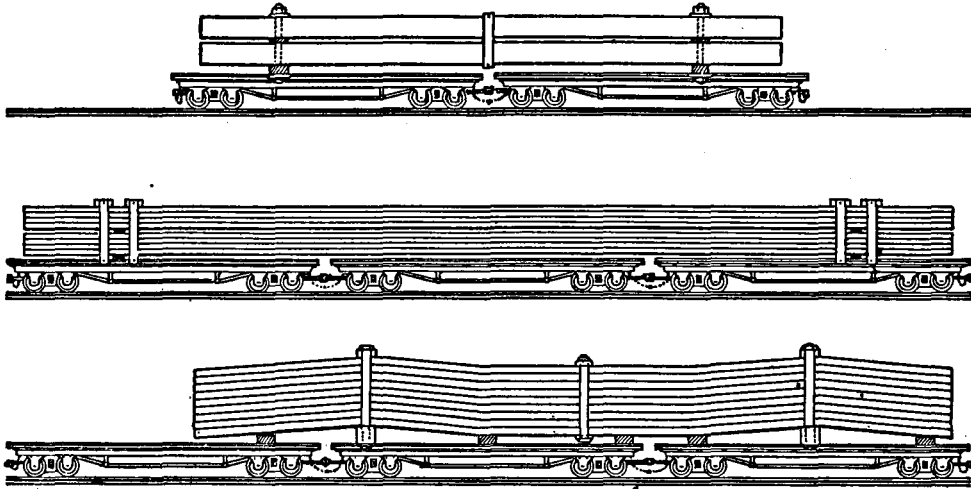
AGREED WEIGHT: The weight prescribed by agreement between Carrier and Shipper, for the acceptance of commodities shipped in specified containers or in a specified manner.

MINIMUM WEIGHT: The least weight on which carriers will apply a rate or will compute the charges.

LIGHT WEIGHT: The weight of an empty car.

WEIGHT CAPACITY: The weight carrying capacity of a car.

The Light Weight and Weight Capacity of a car are usually stencilled thereon.



"TWIN" CARS, "SERIES" CARS, AND AN "IDLER" CAR IN SERIES.
SEE PAGE 93, FOR DESCRIPTION.

FREIGHT CHARGES BASED ON WEIGHT.—Weight is usually the basis for computing freight charges and is used in accordance with the provisions of the tariff.

Accuracy of weight is as important as accuracy of rates. Consequently, it is essential for a shipper to be familiar with the rules and practices of weighing freight.

WEIGHING OF CARS.—Carload freight should be weighed at the point of shipment, but if scales are not available there the weighing should be performed on the nearest scales. The scales on which cars are weighed should be tested, and the weighing should be done in accordance with the rules of the carriers.

When track scales are used, weighing must be done under the supervision of the carriers represented, or under authorized weight agreement. •

Cars may be weighed at rest or in motion, but they should be uncoupled at both ends. When twin cars are used, they may be weighed coupled, either at rest or in motion, on scales designed for this purpose.

Less-than-carload freight should be weighed before shipment, if possible, and the weight noted on bill of lading. If shippers have no scales, they should endeavor, as far as practicable, to have carriers note the weight on bill of lading.

If tariffs provide for the acceptance of an *estimated* weight for a particular commodity, shipped in specified containers or in a specified manner, either carload or less-than-carload, weighing is unnecessary, but the estimated weight should be shown on bill of lading.

RE-WEIGHING.—Carload freight is re-weighed when the carrier believes that it is necessary to test the accuracy of previous weights. It is also re-weighed by request of consignee or consignor when doubt exists as

to the accuracy of the billed weight, subject to charges provided in tariffs; but no charge will be assessed by the carrier if the ascertained weight shows a discrepancy greater than the Tolerance.

Less-than-carload freight will be re-weighed at delivering stations when consignees dispute the accuracy of the billed weight, usually without charge even though the billed weight is found to be correct.

TOLERANCE.—The difference in weights, due to variation in scales or weighing, which may be permitted without correction of the billed weights, is called “tolerance.”

The tolerance is one per cent of the lading, with a minimum of 500 pounds, on all carload freight, including coal and coke, except that when ashes, cinders, clay, gravel, ore, slag, uncut stone, etc., and similar bulk freight, brick and soft drain tile are loaded in open cars, the tolerance shall be one per cent of the lading with a minimum of 1,000 pounds.

Tolerance on coal and coke does not include difference in weight due to evaporation. The tolerance allowed for this cause is determined and published in initial carrier's tariff.

Weights of commodities subject to shrinkage in weight from their inherent nature, properly obtained at point of origin, are not changed, except as provided for in the tariffs of the carriers.

As a rule, all solid carloads of ordinary merchandise, except those containing commodities transported at an authorized estimated weight, are weighed on track scales by carriers while enroute, and the ascertained weight is noted either on the card waybill or on the regular waybill accompanying the cars. On arrival at destination, the weights thus noted are checked against the billed weights by the delivering agent, and

if differences exceeding the tolerance are discovered, either increasing or reducing billed weights, corrections are issued and charges collected on the corrected weights.

ILLUSTRATIONS OF TOLERANCE.—

1. Billed weight of a car is.....36,900 lbs.
Ascertained track scale weight.....37,200 lbs.

Difference 300 lbs.

No correction would be issued as the difference must be 500 pounds or more.

2. Billed weight of a car is.....60,000 lbs.
Ascertained track scale weight.....59,450 lbs.

Difference 550 lbs.

No correction would be issued as the difference is not 1 per cent of the lading .

3. Billed weight of a car is.....36,900 lbs.
Ascertained track scale weight.....37,450 lbs.

Difference 550 lbs.

Correction would be issued as the difference exceeds the minimum of 500 pounds tolerance.

AGREED WEIGHT.—When shipments are forwarded in packages of uniform size and weight, arrangements may be made with carriers to ascertain the weight of such packages and subsequently the weight thus determined will be accepted and applied by the carriers under weight agreement, properly supervised. Such weights, however, must be designated in the prescribed manner on bills of lading or weight certificates, and the property will not be re-weighed. Under an arrangement of this nature freight is received by carriers and billed at what is termed the “Agreed Weight.” A copy of each Weight Agreement must be filed with the Interstate Commerce Commission.

The carriers, however, will frequently check the records of shippers for the purpose of verifying the weights and descriptions furnished, and if freight is forwarded in carloads, a sufficient number of cars will be weighed for verification.

An agreement of this nature is a great aid to shippers who forward their freight in containers of uniform size, as it facilitates the movement of the freight and renders it unnecessary for the carriers to weigh such shipments.

Under this agreement the shipper shall report and certify correct gross weights and give correct description of commodities in bills of lading. He shall also allow the authorized representative of the carrier to inspect the original weight sheets and records necessary to verify the weights and descriptions of the commodities certified in the bills of lading .

If weights of uniform or standard weight articles are based upon averages, the shipper shall give prompt notice to the carrier when any change is made in the package which will affect the average weight.

Either party to a weight agreement may cancel it by ten days' notice in writing.

ESTIMATED WEIGHT.—The estimated weight is the weight specifically prescribed in tariffs for goods shipped in certain packages or in a certain manner.

MINIMUM WEIGHT.—Carload rates are subject to a minimum weight that must be loaded, or charge is made therefore. The minimum weight for different commodities varies and, in some cases, is fixed by the capacity of the car used. When a car is ordered, the weight to be shipped should be specified, and in the case of bulky goods the dimensions of car needed should also be stated.

Chapter X

MOVEMENT OF FREIGHT—OUTBOUND

COLLATERAL READING: In the Freight Traffic Red Book—Traffic Glossary; Standard Forms of Shipping Papers; Shipping Orders and Bills of Lading; Freight Consolidation Service; Container Freight Service.

Section 1

Problems Confronting a Shipper

CLASSES OF SHIPPERS.—There are three classes of shippers:

1. Shippers of carload freight; the traffic term for which is C. L. freight.
2. Shippers of less than carload freight; called L. C. L. freight.
3. Shippers of both C. L. and L. C. L. freight.

The method of receiving and delivering freight varies in different sections of the country, each section having different problems to solve. However, in no section are the traffic problems so intricate and complex as they are in Chicago and New York City. Anyone capable of directing the traffic through the terminals in these cities will be competent to handle traffic in any other section. Therefore, many of the illustrations and problems which we shall use in this course are taken from the movement of freight to and from Chicago or New York territory.

PROBLEMS OF C. L. SHIPPERS.—Some of the problems confronting a C. L. shipper are:

1. What agency shall he use in getting his shipment to destination?

The answer to that question is determined by three factors; namely,

- (a) Nature of the commodity.
- (b) Whether quick transportation is desired or not.
- (c) Routing instructions.

2. What kind of car shall he order?

The obvious answer is that the car should be suitable in every way for the proper transportation of the commodity.

3. Shall delivery be made to a station, team track, private siding, or lighter?

In considering this question, the following differences in responsibilities are to be noted:

(a) If shipment is delivered to a *station* and is unloaded from trucks onto a platform, it is loaded in the car by *carrier*.

(b) If shipment is delivered to a car on a *team track, private siding, or assigned siding*, it is loaded in the car by *shipper*.

(c) If shipment is delivered to a *lighter* at a light-erage point, it is unloaded from lighter and loaded into or on car by *carrier*. Sometimes, however, a lighter is loaded by the shipper and an allowance per 100 lbs. is made to him, but the allowance made must be in accordance with a legally published tariff. (See "*Light-erage*" section of *Red Book*).

4. What route shall shipper choose?

Shipment should be forwarded (a) by the route specified by consignee; (b) by the cheapest reasonable route, if route is not specified in customer's order;

(c) by the quickest route, if the commodity is of a perishable nature or if it is urgently needed.

If shipment is destined to a "non-competitive point," there is no choice in selection of route.

Carload ratings apply only when a carload of freight is shipped from one station, in one day, by one shipper, for delivery to one consignee at one destination and on one bill of lading.

When freight is loaded in a car placed on team track, assigned or private siding, or is delivered to a lighter, 48 hours are allowed to accomplish loading. At the expiration of this period demurrage accrues.

Shippers should endeavor to impress upon their customers, when ordering, to specify delivering line and the station at which delivery is desired. Failure to do this may result in the shipment being consigned to a station located some distance away from the consignee's establishment, and excessive cartage charges may be incurred. Shipment should be consigned to the delivery station nearest to the consignee's store or warehouse. (*See "Routing" section of Red Book*).

PROBLEMS OF L. C. L. SHIPPERS.—The problems confronting an L. C. L. shipper are many and in most cases very intricate, some of which are as follows:

Selection of route.

Best method of forwarding small and large shipments.

Advisability of shipping through a responsible forwarding Company.

Individual employment of the Consolidated Car method of shipping, and utility of the "Club" car.

Shipping in Package cars.

1. **Routing:** If route is not specified by buyer, the shipper should forward via the line over which the lowest rate obtains consistent with the service required.

2. **Method of Forwarding:** When forwarding a shipment by freight, it is advisable to ship in as large quantities as possible, for the purpose of reduction of cartage charges, etc. Small shipments may frequently be forwarded at less expense via express or parcel post.

3. **Forwarding Companies:** Oftentimes less-than-carload shippers avail themselves of the services of forwarding companies, which consolidate various less-than-carload shipments into solid carloads and forward them to distant points, consigned either to their agents or to their own branches, where they are distributed to the various consignees. By the employment of this agency, shipper obtains the benefit of a certain differential under the rate that would be charged if shipped direct by railroad. (See "*Freight Consolidation Service*" section of *Red Book*).

This method of consolidating less-than-carload shipments is permissible under the provisions of Rule 10 of the Consolidated Classification, but only the less-than-carload shipments composed of articles provided with carload ratings or rates may be thus consolidated; that is, articles taking "any quantity" ratings are excluded.

Forwarders gather together less-than-carload shipments from various shippers at its consolidating stations, where they are assorted and classified. These shipments are then assembled into solid carloads and loaded into cars, each carload being made up of articles taking similar carload ratings.

On arrival at destination, cars are promptly unloaded and consignees are notified to call for their

freight or, upon request, store door delivery will be made at a nominal charge.

Forwarders employ also the steel shipping container in transporting less-than-carload package freight to the various points to which the container service is operative. This container has enabled the forwarder to extend his service to shippers of all classes of merchandise, with or without carload ratings, because the cost of transportation is on a mileage basis, whereas in box car operation a Classification basis is the underlying principle. (See "*Container Freight Service*" section of *Red Book*).

Schedules are issued containing class rates applying to the various points served together with the regular class rates applying to the same points, but the differentials under the regular class rates are not uniform except to the points reached by the container service, the differentials to these points being 10 per cent, 8 per cent, 6 per cent, 4 per cent, 6 per cent, and 4 per cent on 1st, 2nd, 3rd, 4th, Rule 25, and Rule 26 classes, respectively. For example, the rates for these classes, New York City to Cleveland, Ohio, are in cents per 100 pounds:

| | 1 | 2 | 3 | 4 | R25 | R26 |
|------------------------|-----|-----|----|----|-----|-----|
| Regular Rail Rates.. | 101 | 88½ | 67 | 47 | 75 | 53½ |
| Differential Rates ... | 91 | 81½ | 63 | 45 | 70½ | 51½ |

This example demonstrates that through the medium of this container service the saving effected in transportation charges per 100 pounds on freight taking the above named classes would be: 10 cents, 7 cents, 4 cents, 2 cents, 4½ cents, and 2 cents, respectively.

To illustrate the saving in transportation charges brought about by use of the forwarder's service to a point not served by the steel shipping container, the following is an example:

A shipment, from New York City to Chicago, consists of 10 boxes Drugs, total weight 2,500 pounds, rated 1st class less-than-carload, 3rd class carload, carload minimum weight 30,000 pounds. The 1st and 3rd class rates per 100 pounds are 142 cents and 94½ cents, respectively, and the forwarder's 1st class differential rate is 126 cents per 100 pounds. If shipped in the regular way, charges would be:

2,500 lbs. @ 142¢ per 100 lbs. . . . \$35.50

If shipped by Forwarder's Service, charges would be:

2,500 lbs. @ 126¢ per 100 lbs. . . . \$31.50

Saving effected. . . . \$ 4.00

The forwarder combines this shipment with others taking the same carload rating, sufficient to aggregate a total of 30,000 pounds, and the freight is then loaded into a car and forwarded to destination, the forwarder paying the transportation charges of carrier on the basis of 3rd class rate, 94½ cents per 100 pounds.

The advantages obtained by shippers and receivers in employing the services of forwarding companies are:

- (a) Saving in freight charges,
- (b) Saving of time in transit and avoidance of transfers en route,
- (c) Possibilities of loss or damage reduced to a minimum,
- (d) Prompt tracing information readily obtainable.

The shipper via this agency, of course, has no direct claim against the railroads for any loss or damage sustained to a shipment while in transit, and all claims of this nature must be presented to, and adjusted with,

the forwarding company, because the bill of lading is issued by the forwarder.

The operations of freight forwarders are generally restricted to the large commercial centers, for the reason that unless a forwarder can accumulate a large tonnage for daily forwarding, an efficient service cannot be maintained. However, the advent of the steel shipping container has enabled them to extend their operation to cities which could not otherwise be served.

This method of shipment is often used by large shippers, having branch departments in various parts of the country, who forward carloads of various consignments to a distant destination for distribution and for forwarding from that point to their final destinations, thereby effecting a large reduction in the transportation charges.

Another method of consolidation for the purpose of reducing transportation charges is the use of the "Club" car, which is explained as follows:

Merchants in some of the large Western cities, dealing in like kind of goods; for instance, cotton piece goods, unite and employ an agent, located in a city like New York, for the purpose of assembling various lots of their merchandise into solid carloads and consigning them to one of the merchants at destination, who, on arrival, arranges for distribution to the respective buyers, thus effecting a large reduction in the cost of transportation.

4. CONTAINER FREIGHT SERVICE.—The Container Freight Service, inaugurated for handling less-than-carload freight, has met with considerable favor among a certain class of shippers on account of the benefits derived therefrom, among which are: (1), the comparatively low rates charged; (2), expeditious through car movement; (3), relief from annoyance of freight

going astray; and (4), elimination of claims rendered almost a certainty. Some of our large industries and forwarding companies are able to advantageously avail themselves of this efficient and economical method of transporting freight.

On the other hand, the utilization of this means of transportation is at present limited at the most to a few shippers, for the reason that the charge for use of a container is based on a minimum weight of 4,000 pounds at the rate of 5 cents per mile for distance hauled, and not often does the average less-than-car-load shipper have sufficient tonnage for one consignee to warrant the employment of this means of shipping.

At the points where the Container Freight Service has been established, upon request of shippers, carriers will furnish empty containers. The empty container is lifted from the car by an electric crane and placed on a suitable motor truck by carrier, trucked to the shipper's place of business and loaded, while on the truck. This method of loading is necessary because the ordinary shipper does not have the means to take the container off the truck. The trucking rate includes the time necessarily required for loading and unloading, but this rate, however, is entirely independent of the railroad rate and the carrier assumes no responsibility as to the amount of the trucking charge. When the container is loaded, it is locked, trucked to the railroad crane, lifted onto car, and then transported to destination, where, in accomplishing delivery, the operation is reversed. No charge is made by carrier for transferring containers from trucks to cars or from cars to trucks.

The rates applying on freight transported in containers loaded on container cars are constructed as follows:

Rate of 5 cents per mile per container loaded to a weight of 4,000 pounds or less will apply from and to all points, as named in tariff, subject to minimum charge per container, as specified. For each additional 500 pounds or fraction thereof, an additional charge of $\frac{1}{4}$ of 1 cent per mile will be made.

An exemplification of the saving in transportation charges that may be effected by employment of the container service is as follows:

A shipment, from New York City to Cincinnati, Ohio, consists of Typewriters in boxes, total weight 6,200 pounds. The Classification L. C. L. rating on this article is 1st class, and 1st class rate, New York City to Cincinnati, is $123\frac{1}{2}\text{¢}$; the mileage is 757 miles.

If shipped in the regular way, charges would be:

6,200 lbs. @ $123\frac{1}{2}\text{¢}$ per 100 lbs. . . . \$76.57

If shipped in container, charges would be:

4,000 lbs.—757 miles @ 5 ¢ per mile. . \$37.85

2,200 lbs.—757 miles @ $1\frac{1}{4}\text{¢}$ per mile. . 9.46 \$47.31

Saving effected. . . . \$29.26

Further, by use of the container service, considerable additional saving may doubtless be effected in the cost of containers, packing and marking.

5. Package Cars: The "Package Car" service in vogue with many railroads is a desirable method of forwarding small shipments to distant points. It is a service accorded by railroad companies whereby on a certain day, or days, of a week they load at designated stations cars with less than carload shipments destined to certain distant points; for example, from New York to St. Louis, or from Chicago, Ill., to Denver, Colo.

The "Package Car" service is appreciated by many shippers, because freight goes through to destination without transfer; time of movement is thus greatly reduced; and liability for loss and damage is reduced to a minimum. Frequently the carriers furnish a Refrigerator "Package Car" service which many shippers use advantageously. Industrial traffic men should become familiar with this service.

Some time ago a traffic specialist, who has been in business for many years handling import freight at the port of New York for western buyers, was requested by a large Denver concern to take charge of a few small shipments. Being familiar with the "Package Car" service, on inquiry he found that a certain trunk line was forwarding weekly a "Package Car" to Denver, and he thus forwarded these shipments. The Denver concern had never before heard of this service and was greatly surprised to receive these shipments in a through car. This company communicated immediately with this traffic man and manifested its appreciation of his ability by giving him the contract to handle all of its business which was a considerable item. This is only one example of how valuable it is to have an intimate knowledge of the various kinds of service accorded by railroads.

Section 2

Details Affecting a Shipment

A TRIP BY FREIGHT.—We shall now follow the course of an L. C. L. shipment from the time the order for it is received, and accompany it to the railroad freight station for the purpose of correct delivery to carrier. We will then meet the shipment at destination and follow each step necessary for the accomplishment of a correct delivery.

The things which require the close attention of the shipper, in getting his goods into the hands of the purchaser safely and with least trouble, are the following:

- Containers,
- Packing,
- Marking,
- Shipping Papers,
- Preparation of Shipping Papers,
- Charges Prepaid or Collect,
- Straight or Order Consignment,
- Selection of Route,
- Delivery to Carrier,
- Disposition of Bill of Lading,
- Disposition of Memorandum Bill of Lading.

Let us look closely into these details of shipping, for they are vital to every shipper.

CONTAINERS.—The lightest possible containers consistent with the rules of Classification should be selected in order to keep down the freight and cartage charges; but containers must be of sufficient strength and security to afford reasonable and proper protection to the freight enclosed therein. The cause for a large majority of damage claims is the insufficient strength of the containers. Therefore, while reduction of weight of containers is desirable in order to reduce freight charges, yet it is far more essential that all articles should be in such condition and so prepared for shipment as to render the transportation thereof reasonably safe and practicable.

In order to secure the lowest Classification rating shipment must strictly comply with the specifications contained in the Classification relative to containers, the method of packing, and description of articles. When a shipment does not comply with the regulations of the Classification it is either rejected, or a higher

rate is assessed. Therefore, traffic men should thoroughly understand the Classification rules and know how to interpret correctly the various ratings.

PACKING.—Package and packing specifications are based upon extensive tests as well as upon experience.

Commodities taking different rates should not be placed in the same package. If they are, the rate of the higher class will apply to the entire contents, and a wrong description of contents subjects shipper to a heavy penalty.

Freight inspectors are duly authorized representatives of Bureaus established by the various transportation companies, and their duties consist in verifying shippers' weights and in seeing that shipments are properly described in bills of lading and are classified accordingly. They have authority to weigh all shipments offered for transportation, and to open packages in order to ascertain whether property is being correctly described by consignor. (*See "Parking and Marking" section of Red Book*).

MARKING.—The name of consignee, address, street and number, city or town, county (if there are two or more places of the same name in the state), and state must be plainly marked or stenciled on each package of L. C. L. freight. It is also wise to mark or stencil thereon the name and address of shipper, preceded by the word "From." This is of great assistance to both shipper and carrier, when shipment goes astray or is unclaimed. Frequently, the name of shipper is marked on the opposite side from that on which the consignee's name appears.

When a label or a tag is used, it should be securely fastened and, in case of pieces or bundles of metals, tags should be fastened with wire.

In case second-hand containers are used, all previous shipping marks must be removed.

A carload shipment need not be marked.

An example of correct marking for a "straight" consignment is to be found on page 113.

If an L. C. L. shipment is consigned "to order," the words "To Order" or "Order-Notify" must invariably be shown on each package, and further marked with an identifying symbol or number which also must be shown on shipping order and bill of lading.

Example of correct marking for an "Order-Notify" consignment is given on page 115.

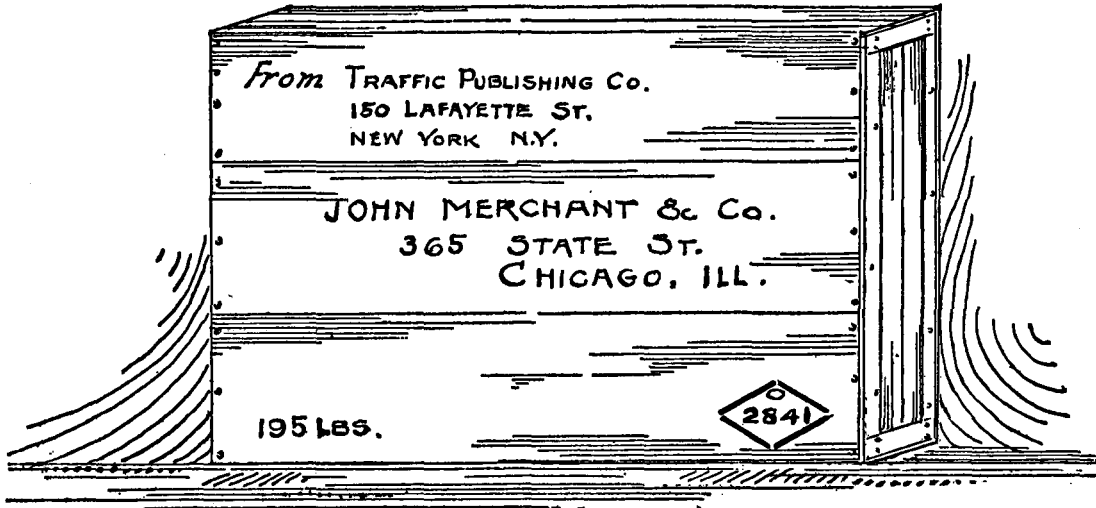
When an L. C. L. shipment is consigned for "Export" the name and address of the broker or agent at the port of export may also be shown.

An example of correct marking for an "Export" consignment is shown on page 115.

SHIPPING PAPERS.—The Shipping Papers consist of a Bill of Lading, a Memorandum Bill of Lading, and a Shipping Order.

Many shippers have their own printed forms. These forms must comply with the rules governing the uniform bill of lading, and the conditions must be printed thereon.

PREPARING SHIPPING PAPERS.—Shipping papers should show date and point of shipment, name of shipper, name of carrier, name of consignee, mail address (not for purpose of delivery), destination, state, and county (if there are two or more places of the same name in the state), the descriptions of articles should conform to the Classification descriptions; indefinite terms must not be used, and the shipping papers for L.C.L. shipments must specify the number of packages.



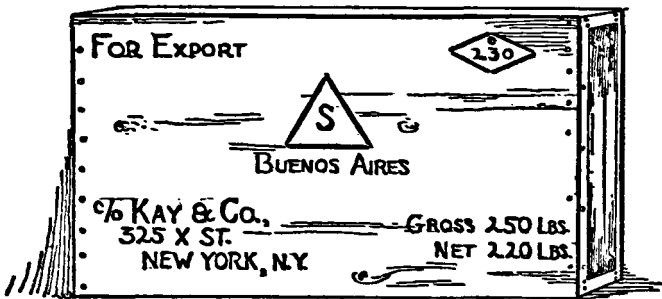
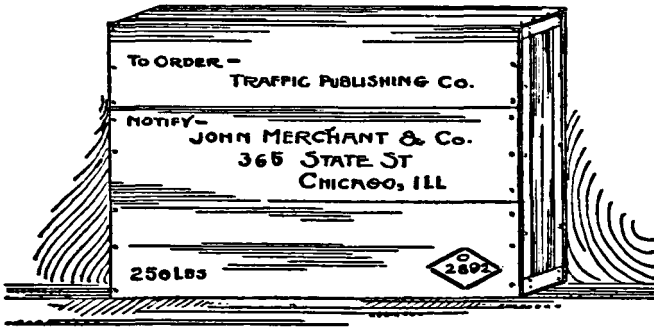
If freight is weighed, or is contained in uniform packages which are accepted by carriers at an authorized estimated weight, said weight should be marked on case and noted on shipping papers.

CHARGES PREPAID OR COLLECT.—If freight charges are to be prepaid, in the place provided therefor in shipping papers should be written or stamped the words "To be Prepaid." If shipment is forwarded with freight charges "To Collect" and the consignor desires to be relieved of all liability for said freight charges, he should sign the bill of lading in the place designated thereon for signature. Every carrier has the right to require at time of shipment, prepayment or guarantee of all charges.

STRAIGHT OR ORDER CONSIGNMENTS.—If shipment is a Straight consignment, use the form for that method. (*See Form No. 1 of Red Book*). If the shipment is an Order-Notify consignment, use the blue and the yellow forms, (*See Form No. 2 of Red Book*), and note thereon an identifying symbol or number corresponding with that marked on the package.

A shipment consigned "Order-Notify" must be marked with a distinguishing symbol or number; and where shipment consists of more than one package, the use of a serial number is recommended. The symbol, number, or numbers must also be shown in shipping papers and be identical with those marked on package.

SELECTION OF ROUTE.—If consignees have specified the routing desired, said routing should be noted on the shipping papers; in the absence of such instructions, the traffic department should note thereon the proper route. However, it is not necessary to show routing instructions where neither shipper nor receiver has preference; for, if routing is not shown, it is the duty



of carrier to forward via the cheapest reasonable route. (See "*Routing*" section of *Red Book*).

DELIVERY TO CARRIER.—Merchants either own their trucks or have contracts with responsible drayage companies to perform their cartage service. When freight is ready for shipment the drayage company is notified, the shipment is loaded on truck and hauled to the nearest freight station of the carrier.

It is a practice in large cities for truckmen to go to terminals in the A. M. for the incoming freight, and ship the outgoing freight in the P. M. This is one of the greatest causes of congestion at terminals.

If the traffic manager is responsible for the proper operation of the drayage department, a large amount of money can be saved by skillful and intelligent direction.

DISPOSITION OF BILL OF LADING.—The bill of lading and the shipping order are handed to the truckman when loading the shipment, which is hauled by him to the designated carrier's station. It is delivered to the carrier's receiving clerk, who inspects the package or packages and, if in proper shipping order, signs the bill of lading. This document is returned by the truckman to shipper. If the bill of lading covers a "straight" consignment it should be forwarded to consignee so that he may readily identify himself as the owner of the consignment and therefore insure prompt delivery.

If the bill of lading covers an "order" consignment it should be turned over to the shipper's accounting department and after being properly endorsed, draft and invoice should be attached thereto. These documents are then delivered to the bank in which the shipper has an account for forwarding to its correspondent bank at destination to be delivered to the purchaser against his acceptance of the draft.

An Order consignment will not be delivered except on surrender of the bill of lading properly endorsed; which means that it should be endorsed on the back with the signature of the party to whose order it is consigned. Some carriers require the party taking delivery also to endorse.

DISPOSITION OF MEMORANDUM BILL OF LADING.—The Memorandum bill of lading should be filed by shipper as a record of the shipment. If desired, the carrier will sign this document, noting thereon the word "Duplicate."

The shipment is now in the possession of the carrier. We will assume that the destination is some large city, and in the next lesson we will meet it on arrival and learn how the delivery is accomplished.

Chapter XI

MOVEMENT OF FREIGHT—INBOUND

COLLATERAL READING: In the Freight Traffic Red Book—Traffic Glossary; Standard Forms.

Section 1

Preliminaries to Getting Deliveries of Freight

NOTICE OF ARRIVAL.—The shipment discussed in the last chapter has now arrived at destination and in this chapter we will describe each step necessary to accomplish a correct delivery.

On arrival of waybill (*See Form No. 6 of Red Book*) and shipment at destination, a notice in writing is sent or given to consignee by carrier's agent, or as otherwise agreed to in writing by carrier and consignee, within 24 hours (one day) after arrival. This notice must specify the point of shipment, commodity, and amount of charges, if any. (*See Form No. 7 of Red Book*).

An impression copy of written notice is retained by the carrier. When the address of the consignee does not appear on waybill and is not known, notice of arrival is deposited in the United States mail enclosed in a stamped envelope bearing return address and if it is returned it is preserved on file.

DELIVERY REQUIREMENTS.—In order to obtain delivery of the goods, consignee will have to pursue the following course:

1. For a "straight" consignment he must surrender arrival notice and original bill of lading to carrier, or by other means identify himself as the owner of the shipment.

When a shipment is consigned to "order" arrival notice is sent to the "notify" party named in the "order" bill of lading who, on receipt of said notice, calls at a designated bank, pays the amount of the draft, and obtains the original bill of lading. The "order" bill of lading, properly endorsed, must be surrendered in order to obtain delivery of the freight named thereon. Frequently an "order" bill of lading bears a notation to the effect that inspection or sampling is to be permitted prior to payment of draft. In such cases the bank will usually entrust the bill of lading to the purchaser for the purpose of exhibiting it to the delivering agent so that this privilege may be allowed. If a notation of this kind was not made on the bill of lading, the railroad agent would not permit inspection or sampling until the original bill of lading properly endorsed had been surrendered and freight charges paid.

2. He must pay freight charges to cashier of carrier and obtain receipted freight bill.

3. He must, at the same time, obtain an order for delivery of the goods.

4. He then presents to the delivering clerk the order for delivery and after receiving the property signs a receipt.

PRECAUTIONS IN SIGNING FREIGHT RECEIPTS.—There are several very good reasons why great care should be exercised in signing for freight. Among these reasons are the following:

(a) Unless exception is taken as to condition of freight and said exception noted on receipt, the shipment is receipted for in "Good Order." However, a "Good Order" receipt for freight does not entirely release carrier from liability, yet it is difficult to collect a claim when a "Good Order" receipt has been given. The carriers will not permit consignees to make

the notation "Recoopered" or "Bad Order" on receipts when signing for freight that is not in apparent good order but will insist that each exception be specifically stated. On the other hand, however, the carriers when receiving goods for shipment, often insert these notations on receipts, but shippers should invariably decline receipts so noted.

(b) The consignee should be very careful to see that every package or piece of freight on the bill of lading is delivered by carrier. It frequently occurs, through carelessness, that clean receipts are given for freight that is not received or is in a damaged condition. Consignee should insist that carrier's delivery clerk make specific notation on delivery receipt, as to shortage of goods or condition thereof, before affixing his signature to the receipt. In addition, he should endeavor to have the delivery clerk also make the same notation on the freight bill.

(c) Before beginning to take delivery of cars covered by bills of lading bearing the notation "Shippers' Load and Count," car seals should be examined to ascertain if they are intact. If they have been tampered with, the contents of the cars should be carefully tallied and examined.

Section 2

Procedure in C.L. and L.C.L. Delivery

CARLOAD DELIVERY.—There are three kinds of deliveries made of C. L. shipments; viz., Station delivery, Track delivery and Lighterage delivery. The procedure in each case is as follows:

STATION DELIVERY.—If a station delivery is made, freight is unloaded at carrier's terminal by its warehousemen or labor force and is placed together in one

section. These sections are usually designated by numbers or letters. The notice for this delivery usually states that 48 hours (not including day of arrival, Sundays, and legal holidays) will be allowed for the removal of freight. If freight, except automobiles or other self-propelled vehicles (not excepting motorcycles or bicycle motor wheels) is not removed within the free time allowed, it is subject to the following storage charges per day:

For each of the first five days, 1½ cents per 100 pounds.

For the sixth and each succeeding day, 3 cents per 100 pounds.

Minimum storage charge per shipment on freight held beyond free time, five days or part thereof, 25 cents; six days or more, 50 cents. (*See "Storage" section of Red Book*).

At the expiration of free storage time, the carrier is authorized to place shipment in a public warehouse at the expense and risk of owner. This is the action usually taken, unless the freight is of such a nature that the warehouse is unable to handle it. The accrued storage, however, is always added to the extra expense that is incurred. When freight is placed in a public warehouse, the consignee is promptly notified by carrier of the action taken.

TRACK DELIVERY.—If track delivery is to be given, the car is placed on a team track and consignee is promptly notified; or, if consignee has a private siding, the car is placed thereon under his instructions. At some stations where the facilities for team track delivery are limited, track storage in addition to demurrage, is charged after the expiration of free time and the following is a form of stamp placed on arrival

notice of some carriers whose facilities are thus limited:

| IF NOT REMOVED BY..... | | DEMURRAGE AND | | | | |
|------------------------|--------|---|--------|--------|--------|--|
| (HOUR AND DATE) | | TRACK STORAGE CHARGES WILL ACCRUE AS FOLLOWS: | | | | |
| DAYS... | 1-DAY | 2-DAY | 3-DAY | 4-DAY | 5-DAY | |
| DEMURRAGE..... | \$2.00 | \$2.00 | \$2.00 | \$2.00 | \$5.00 | |
| TRACK STORAGE..... | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | |
| TOTAL.... | \$3.00 | \$3.00 | \$4.00 | \$4.00 | \$7.00 | |

In Computing Time, Sundays and Legal Holidays Are Excluded

Track storage is a rental charge for the track space occupied by a car during the demurrage period, but is applicable only to cars placed on public team tracks and the rates charged must be shown in a legally published tariff.

Forty-eight hours (two days) free time are allowed for unloading cars placed on public team tracks. On cars held for unloading, time will be computed from the first 7 A. M. after placement on public delivery tracks and after the day on which notice of arrival is sent to consignee.

PRIVATE SIDINGS.—Many industrial concerns have side tracks running into their plants and all carload shipments consigned to such plants are placed on these side tracks by the carriers. The free time for cars so placed is computed from the first 7 A. M. after actual placement.

LIGHTERAGE DELIVERY.—Freight arriving at terminals consigned for lighterage delivery is unloaded from cars and loaded on lighters for transportation to destination. On arrival at terminals of cars so consigned, notices of arrival are sent to consignees.

When the lighter reports at its destination the captain of the boat presents a lighter manifest to the consignee who, must provide a berth, and 48 hours from the time lighter reports, Sundays and full legal holidays not included, are deemed lay days without charge, after which demurrage shall accrue against each consignee at the tariff rates per day of 24 hours or fraction thereof, Sundays and holidays included.

The demurrage tariff charge on ordinary lighters in New York Harbor is \$20 per day. When special lighters are used the demurrage charge varies according to the capacity of the lighter, and it is considerably higher than on ordinary lighters.

If no berth is provided by consignee on arrival of lighter at its destination, or if the lighter is not unloaded within the lay days, the property may be removed to and stored in a public warehouse at the cost of owner and without liability on the part of transportation company. Freight thus stored is subject to a lien for all lawful charges.

LESS-THAN-CARLOAD DELIVERY.—Delivery of L. C. L. freight is usually a station delivery and is made from platform or pier. The process is as follows:

1. A notice of arrival is sent out in the same manner as for carloads.
2. On receipt of arrival notice the consignee should turn it over to his drayman together with bill of lading. He should present these documents to the cashier located at the terminal of the transportation line. If the shipment is "Collect" and consignee is not on the credit list, the drayman should pay the freight charges.
3. The receipted freight bill and an order for delivery are then given to drayman, who presents it to the carrier's delivery clerk and obtains the freight.

The instructions relative to signing receipts for C. L. freight apply also to L. C. L. shipments.

When accepting delivery of package freight, if a package bears evidence of having been tampered with, it should be opened and only actual contents signed for. If a package appears to be light in weight, because of either leakage or sifting, it should be weighed, and only the actual weight signed for.

Section 3

Liquidating Freight Bills

CARRIER'S CREDIT LIST.—Formerly the carriers allowed credit to shippers and receivers, and had in effect what they termed the "Authorized Accommodation List." The names of the shippers and receivers appearing on this list were accorded daily, weekly, or monthly credit as respectively authorized.

That practice, however, has been abolished and now credit is extended for a period not to exceed 96 hours. To obtain this credit, application must be made to carriers in compliance with their individual rules.

Many of the carriers by railroad require that an application for credit must be sent to the carrier's treasurer; and that there must be given, as references, two commercial houses and one bank.

For regular shippers and receivers this accommodation is a great convenience and quite an economical factor, as it aids prompt shipment, especially when it is desired to prepay transportation charges, and delivery of inbound freight is expedited. It is also a convenience to the carrier. (*See "Payment of Freight Charges" section of Red Book*).

AUDITING FREIGHT BILLS.—Every shipper and receiver should have their freight bills audited for the purpose of verification of WEIGHT, RATE, and TOTAL CHARGES.

Merchants, as a rule, pay very little attention to the charges shown on freight bills. Some do check the bills as to correctness of calculation, but very few check for the purpose of ascertaining if the goods are properly *classified* and if the *rate* is correct.

In an interview with the senior member of a well-known firm, engaged in an almost entirely interstate business amounting to several million dollars per year, he was asked if he knew whether the freight bills paid by him were correct or not. He replied that he did not *know*, but assumed that they were.

The freight charges paid by this firm amount to many thousands of dollars each year. It is only reasonable to assume that many errors have occurred in its freight bills, and that a large sum of money could have been saved if they had been audited.

When the railroads were turned back to the owners by the Federal Government, after the Great War, many clerks were discharged. Some of these—rate clerks—knowing the value of auditing bills, presented propositions to some merchants in which they agreed to audit their bills on a basis of being paid one-half the amount which they might recover. Shortly afterwards, one of these young clerks, as the result of auditing, went into the office of one of the large trunk lines and presented 53 claims for overcharge in ONE day. Shippers and merchants should not resort to this method of straightening out their traffic matters. There are men who advertise as traffic consultants or traffic bureaus, and make a business of auditing freight bills, collecting claims on a commission basis. Refunds ag-

gregating a very large amount have been obtained through claims for overcharge caused by erroneous routing, application of incorrect rates, and improper classification.

Statistics show that over FIVE BILLION DOLLARS are paid yearly into the treasuries of the railroad companies by shippers and receivers, of whom only a comparatively small number have given consideration to the value of auditing the bills aggregating this vast amount, possibly for the reason that accountants, even though they may be certified public accountants, could not make an audit of this kind unless they were also competent traffic men. Only men, trained in classification and tariff interpretation, are capable of making an accurate audit of transportation freight charges.

The employment by shippers of competent traffic men and the establishment of traffic departments would be not only a protection from loss, but a profitable investment, and would render unnecessary the employment of the services of outside agencies.

In auditing freight bills, honesty of purpose should be demonstrated and, if undercharges are discovered, payment should be made to the interested carrier. If this method is employed the traffic men will experience no difficulty in collecting just claims, and most cordial relations will be maintained with the carriers.

Again let us emphasize the fact that one skillful traffic man may constitute an efficient traffic department and the foregoing paragraphs demonstrate clearly that a traffic department is a necessary adjunct to every industry engaged in commerce.

WEIGHING FREIGHT.—An expert traffic manager, employed by the largest concern in its particular industry, having branches in almost every large city in the

United States, has given a practical demonstration of the efficiency of his department. One of the plans inaugurated by him was to install scales in each store and to require the manager to weigh every package of L. C. L. freight as soon as it is received from the railroad as well as all packages received from the express companies, because many errors were made in weight. For instance, a package may weigh 95 lbs., but through carelessness might be billed as 195 lbs. During one month, in one district only, the plan of this traffic manager resulted in a saving of \$625. His conservative opinion was that, in one year, the savings thus made in all their districts would amount to over \$40,000. His forecast was justified; for, at the end of the year, the president of this large company wrote a letter to the traffic manager stating that the saving by his plan had amounted to nearly \$50,000.

He has adopted a further plan of weighing the empty containers of freight received, for the purpose of ascertaining if the containers being used are too heavy. If so, he issues specific instructions to shippers to use containers of the right weight.

Attention to apparently trifling details often brings about amazing returns.

Chapter XII

SHIPPING AND RECEIVING DEPARTMENTS

COLLATERAL READING: In the Consolidated Classification—
Rules of the Classification.

Section 1

Shipping Department Practice

PROCEDURE WITH OUTGOING SHIPMENTS.—A traffic manager's job is by no means confined to a knowledge of classifications, rates, and routes. His job extends into the minute details of his shipping department and into the shipping departments of the concerns from which his company buys goods. While he is the head of his own shipping department, he is also the head of the receiving department. Since incoming freight must be properly routed and packed, the traffic manager is vitally concerned with the purchasing and receiving departments.

Traffic departments may differ in methods of organization, but there are certain practices applicable to all shipping departments, which have been found to be sound and profitable. These practices and procedures should obtain in every shipping department. Let us see what they are.

PACKING THE GOODS PROPERLY.—The proper packing of goods for shipment is an obligation which the company owes not only to itself, but to its customers. It stands to reason that goods should be packed in such a manner as will protect them from the wear and tear of transportation. Proper packing is also a form of insurance to which the consignee is entitled. It is the traffic manager's job to devise, or have some one devise,

the very best form of packing suitable for the goods. (See "*Packing and Marking*" section of *Red Book*).

Among the things which must be taken into consideration in devising containers are strength and weight of the material, and bulk. Fiber containers, for example, are now used instead of wooden boxes for many commodities. They cost, usually, about 50 per cent less than wooden boxes and they reduce freight bills. They thus effect a saving to the shipper and to the buyer both. As an illustration of this fact, the traffic manager of one of our largest, nationally known concerns decided to change from wood to fiber containers for several of their commodities. The saving thereby in freight cost alone amounted to over \$26,000 during one calendar year.

MARKING: PUT RIGHT MARKS ON THE PACKAGE.— Each package in an L. C. L. shipment should be properly and legibly marked with brush or stencil, showing the name of consignee, street address, city or town, county (if there are two or more places of the same name in the state), and the station shown on shipping directions.

Every package of L. C. L. freight should be marked exactly as consigned in the bill of lading. It is advisable to mark packages with a symbol or number for the purpose of identification. The *order number* seems to be the only absolutely reliable means of identifying "astray" and "over" packages, and should always be used. Where several packages constitute a shipment, the order number should be shown and each package should bear a serial number. A symbol or number *must be marked* on all L. C. L. packages consigned "To Order." As the Order bill of lading is a negotiable document, it is necessary that the identical marks shown on the packages which it covers must be

shown also in the bill of lading, in order that there may be no error in delivery.

While transportation companies require their agents to compare the shipping receipt with the marks on packages, and to call upon the shipper for correction if a discrepancy between the two is found, this does not relieve the shipper of the responsibility of marking packages in accordance with the shipping receipt. Inasmuch as improper marking is directly responsible for the majority of "astray" packages, careful attention should be given to having packages marked exactly right.

Railroad companies do not require marks on packages shipped in carloads; but each package of a carload shipment, which is transported by a boat line for part of its journey, should bear distinguishing marks, so that it may be identified in case of separation from the remainder of the shipment. These special marks should also be shown in the bills of lading.

WEIGHT SHOULD GO ON THE PACKAGE.—Where less-than-carload shipments are not forwarded at an authorized estimated weight, or an agreed weight, they should be weighed. The weight thus ascertained, or the estimated weight, or the agreed weight, should be marked on packages and shown in bill of lading.

ADDRESS ON THE BILL OF LADING.—The bill of lading should show the name and address of consignee, and both this address and all marks in the bill of lading should be identical with the marking on the package or packages which the bill of lading covers.

DESCRIPTION OF ARTICLES IN BILL OF LADING.—When there is a question as to the proper description of shipments, which, on account of their unusual character, are apt to be improperly classified by transportation

lines, it should be brought to the attention of the traffic manager.

Packages containing premium articles taking higher rates than the goods with which they are shipped, are subject to higher rates than would apply if the premium articles were not included. Questions of this kind should be referred to the traffic manager, for advice as to description in bills of lading, rates, etc.

Many articles are frequently improperly classified by transportation companies, on account of erroneous description in bills of lading. By observing proper forms of description, as illustrated below, over-charges and claims will be avoided.

| <i>Article</i> | <i>Proper Description</i> |
|--|--|
| Boxes, wooden, not nested. | Wooden Boxes. |
| Boxes, wooden, nested. | Nested Wooden Boxes. |
| Boxes, paper, set up. | Paper Boxes, S. U. |
| Boxes, paper, knocked down | Paper Boxes K. D. flat. |
| Drugs, liquid | Liquid Drugs. |
| Drugs, other than liquid. | Dry Drugs. |
| Reels, hose, lawn, steel, set up | Lawn Hose Steel Reels S. U. |
| Reels, hose, lawn, steel, knocked down flat or folded flat | Lawn Hose Steel Reels K. D. flat, or folded flat. |
| Tin in pigs. | Pig Tin. |

(See complete list in Consolidated Classification)

PACKING LIST.—In Export Trade it is the custom to make out a packing list in triplicate showing the exact contents of each package. One copy is placed inside

of the package, one copy is sent to consignee and one copy is retained by shipper for his file. The packing list is signed by the employee who packs the goods.

If the packing list were used in domestic trade for certain classes of shipments, many claims might be avoided and claims for "concealed loss" could generally be collected without controversy. Particularly a packing list would be desirable for such shipments as shoes, hats, hosiery, shirts, and similar commodities which are liable to pilfering in transit.

SPECIFY THE ROUTING.—When the routing is specified by the purchaser and is shown on order slip, said routing should be complied with after being verified by the traffic department. It is a frequent occurrence for purchasers to request their shipments forwarded via routes other than the cheapest route and if the routing requested is reasonable it should be respected. When doubt exists concerning the reasonableness of routing thus shown, the Traffic Manager should be consulted. The routing and terminal delivery desired should always be noted on the bill of lading.

WHEN C. L. RATE APPLIES.—The charge for a small quantity of freight must not exceed that for a greater quantity of like kind; i.e., the charge for a less-than-carload shipment must not exceed the charge for a minimum carload of the same freight at the carload rate. Inasmuch, however, as owners are, as a rule, required to load and unload all freight carried at carload rates, whether handled on sidings or in yards, a charge will usually be made for loading if the carload rate is claimed on a shipment made as a less-than-carload, but not loaded and unloaded by owner.

INCREASED MINIMA FOR LONG CARS.—When merchandise, subject to Rule 34 of the Consolidated Freight Classification, is loaded in or on cars 36½ ft. or less in

length, it is subject to established minimum carload weights; these weights vary for different commodities. The minimum weight for articles subject to this Rule is increased in proportion as car lengths exceed 36½ ft.

The carrier is not always in a position to supply at short notice cars of the exact length desired by a shipper. Therefore, when a shipper orders a car of length to suit any particular shipment and, for its own convenience, the carrier supplies a car of greater length than was ordered, the minimum weight for the car ordered shall govern.

DELIVERY TO CARRIER.—When deliveries are made to freight stations by truck, they should be made in sufficient time to enable freight agents to forward goods on the same day.

When freight is ready for shipment, it should be turned over to the authorized truckman and receipt obtained therefore. This receipt should be held for the purpose of checking and insuring return of the carrier's receipt.

Care should be exercised to avoid forwarding two or more shipments, covered by separate bills of lading, to one consignee on the same day. Whenever possible, consignments should be consolidated.

Shipping receipts with the notation "Wet" or "Received in the Rain" should not be accepted if the articles covered thereby are subject to damage by water, for the reason that if the goods should become damaged by water while in transit, a claim for such damage would be declined by carrier, who would allege exemption because of the notation made on receipt at time of shipment. In such cases, truckmen should be instructed to refuse to accept receipts bearing either of these notations and bring the goods back to the shipping department where they could be examined and, if neces-

sary, repacked in new containers. Then, when again tendered for shipment, clean receipt could be obtained.

If receipts are given with such unusual notation as "Subject to Delay Account of Embargo," the fact should be brought to the attention of the Traffic Manager.

Receipts bearing the notation "Shipper's Load and Count" should not be accepted except in cases of carload shipments which, on account of their nature, cannot be counted by carrier's agents. Whenever it is necessary to accept bills of lading with a "Shipper's Load and Count" notation, especial care should be taken in the matter of car seal records, and shippers should be in a position to make affidavits as to contents of car in case of loss. In the absence of such records, a claim for shortage may be uncollectable.

Under a strict interpretation of most switching and ferry car tariffs, carriers are not responsible for contents of cars loaded on private or assigned sidings, until after they have been removed from sidings. Upon delivery, therefore, of carload shipments on private siding and until cars are switched, they should be protected by a watchman even though goods have been receipted for.

Prior to loading a carload shipment, the car should be thoroughly examined. Cars with leaky roofs and those which have been rendered unfit for use on account of having been recently loaded with some offensive material, should not be accepted from railroad companies except under written protest.

DISPOSITION OF BILL OF LADING.—The bill of lading is evidence of shipment and should be carefully handled. The original bill of lading for a Straight consignment should always be enclosed to the consignee with invoice for the value of the goods, and the Memorandum

dum bill of lading should be filed by the shipping department for record purposes.

CLASSIFICATION SHEET.—The traffic managers for some industries that handle or manufacture a variety of articles furnish their shipping departments with Classification Sheets, showing proper description of articles and applicable ratings.

TABULATING FREIGHT RATES.—The shipping clerk should be quite familiar with the rates via the standard freight lines and differential routes over which shipments are forwarded to and from his concern. Forms similar to the illustrations shown on page 136 should be prepared by the rate department as a guide for the shipping clerk, on which should be tabulated the rates applicable to outbound and inbound articles. This tabulation will aid the shipping clerk to check freight bills quickly and exactly, and may result in considerable saving in transportation charges.

Section 2

Purchasing Department Practice

PROCEDURE WITH INCOMING FREIGHT.—The traffic manager is not the head of the purchasing department, but the purchasing agent and the traffic manager should co-operate and keep in closest touch with each other. The latter is, because of his knowledge, in a better position to route incoming freight than is the former, who is an expert in purchasing goods, not in routing them. The purchasing agent should, therefore, specify in his orders the delivery desired by the traffic department.

Notices of arrival of merchandise should be turned over promptly to a drayman who is to get the goods from carriers. If freight should be consigned to a defi-

136 SHIPPING AND RECEIVING DEPARTMENTS

CLASS AND COMMODITY RATES ON MANUFACTURED GOODS

IN CENTS PER 100 LBS.

DATED 10-12-30

SHRIFT No. -1B
CANCELS SUPPLEMENTS DATED 6-17-29 AND 12-9-29

FROM LOUISVILLE, KY., TO THE STATE OF MISSISSIPPI

| Destination | CLASS RATES | | | | COMMODITY RATES | | | | Route | TARIFF AUTHORITY | |
|-----------------|-------------|-----|-----|-----|-----------------|--------|------|------|-------|------------------|-----------------|
| | 1st | 2nd | 3rd | 4th | Cigars | Cigts. | Sm. | Plug | | Class Rates | Commodity Rates |
| Eupora (R)... | 168 | 143 | 118 | | | | 142 | 110 | | FLS ICC 1280 | FLS ICC 1187 |
| Indianaola (R) | 172 | 146 | 120 | | | | 142 | 110 | | " " " | " " " |
| Louisville..... | 171 | 145 | 120 | | | | 126½ | 98" | | " " " | " " " |
| Lucesdale..... | 199 | 169 | 139 | | | | 139 | 108½ | | " " " | " " " |
| McLain..... | 195 | 166 | 137 | | | | 139 | 108½ | | " " " | " " " |
| Maben..... | 165 | 140 | 116 | | | | 114½ | 89 | | " " " | " " " |
| Philadelphia* | 175 | 149 | 123 | | | | 126½ | 98½ | | " " " | " " " |
| Pontotos..... | 169 | 135 | 111 | | | | 117½ | 92 | | " " " | " " " |
| Prentiss..... | 193 | 164 | 135 | | | | 161 | 125 | | " " " | " " " |
| Ripley (@)..... | 152 | 129 | 106 | | | | 107½ | 84 | | " " " | " " " |
| Union..... | 181 | 154 | 127 | | | | 126½ | 98½ | | " " " | " " " |

Effective-1-29 FLS ICC 1280 Cancelled ICC 1130
 * Class rates effective 8-10-29 Sup. 4 FLS ICC 1280
 (R) Class rates effective 4- 1-30 Sup. 14 FLS ICC 1280
 (@) Class rates effective 4-12-30 Sup. 16 FLS ICC 1280

CLASS AND COMMODITY RATES ON SUPPLIES

IN CENTS PER 100 LBS.

DATED 10-15-30

SHRIFT No. 6/1-A
CANCELS SHRIFT No. 1 DATED 12-6-23

FROM OWENSBORO, KY., TO SCOTTSVILLE, KY.

| Commodity | LESS CARLOAD | | | | | Route | Tariff Authority |
|---|--------------|-------|----------|--------------|-----------|-------|------------------|
| | CLASS | | | | Com. Rate | | |
| | Rate | Class | Item | Page | | | |
| Cooperage stock, wooden, Hoops, coiled or not coiled, in bdls. | 39 M/C50 | 6 | 3-4 C | 164 F C 6 | | AR | FLS ICC 1280 |
| Nails, iron or steel, N. O. I. B. N., cement coated or galvanized or plain, in kegs | 39 M/C50 | 6 | 32 C | 359 F C 6 | | " | " " " " |
| Wire, iron or steel, acid coppered, galvanized, painted, plain or tinned, in bbls., bxs., bdls., or coils, or on reels. | 54 | 4 | 16 C | 540 F C 6 | | " | " " " " |

| Classes | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | M/C. | Class | Route | Tariff Authority |
|------------|----|----|----|----|----|----|----|----|----|------|-------|-------|------------------|
| Basis 173. | 98 | 83 | 69 | 54 | 44 | 39 | 34 | 29 | 25 | | SOU | AR | FLS ICC 1280 |

nite station and carrier offers delivery at some other station, report should immediately be made to the traffic manager.

Delivery of a carload shipment on a public track or siding is not accomplished until the consignee or his agent has been notified of the placing of car and he breaks the seals on the car.

SIGNING FOR SHIPMENTS.—The truckman should be instructed, when signing for a shipment, to sign the name of the trucking company and his own name in full on the freight receipt.

EXAMINING PACKAGES AND CONTAINERS.—Care should be exercised to see that the truckman, or the party receiving the goods, thoroughly examines them and assures himself that all packages called for on the bill of lading are received and whether or not they are in good condition. Before opening a container it should be carefully examined.

WEIGHING INBOUND SHIPMENTS.—All incoming L. C. L. freight shipments should be weighed (when possible) immediately upon receipt. In instances where there is a difference between the actual weight and the weight shown on freight bill, the carrier should be requested to make correction to the proper weight. Failing to have the correction made, the matter should be reported at once to the traffic manager. The weight as shown on the bill of lading should be compared with the scale weight, and where shippers do not show correct weight in their bills of lading or do not show any weight, report should be made to the traffic manager, giving date shipment was received, correct weight, contents, name of shipper, and name of carrier issuing bill of lading and its date.

RECORD OF SHIPMENTS RECEIVED.—The shipping clerk should enter all shipments received and keep

complete record thereof, as provided in a Freight and Express Entry Record, furnished by the traffic department.

SHIPMENTS PUT IN STORAGE BY THE CARRIER.—Report should be made to the traffic manager concerning all shipments which are placed in a public warehouse by the carrier, because they were not removed within the free storage limit. When shipments are placed in a public warehouse by the carrier, on account of not being removed within the free storage limit, a full investigation as to the cause of such action by the carrier should be made and a full report should be sent to the traffic manager.

CHECKING FREIGHT BILLS.—The freight bills should, as soon as received, be turned over to the rate clerk for the purpose of checking the rates, calculations, and classification.

ACCEPTING DELIVERY OF SHORT SHIPMENTS.—Truckmen should be instructed, when taking delivery on a shipment which is not complete, to give receipt for the actual number of packages received and, if possible, to have the agent make and sign a notation on the face of the freight bill as to the number or quantity short and undelivered. If the short freight is not delivered within thirty days, claim should be filed.

TRACING DELAYED SHIPMENTS.—Invoices and bills of lading should be checked every 10 days. When shipments are 15 days overdue, the agent of the delivering carrier should be requested to start a tracer. (*See Form No. 22 of Red Book*).

INBOUND CARLOAD SHIPMENTS.—On receiving freight from solid cars, the car doors should be examined (both end and side doors) before seals are broken, in order to be sure that the seals have not been tampered with. The number of each seal should also be taken.

Chapter XIII

TRUCKING AND WAREHOUSING

COLLATERAL READING: In the Freight Traffic Red Book—
Trucking; Warehousing and Distribution.

Section 1

DEVELOPMENT.—From primeval time methods for conveying merchandise have been devised and the stages of progression from the man who carried a bundle on his head or back have been briefly as follows:

The pack horse;

The ox-cart;

The wagon;

The horse-drawn truck, and

The giant horse-drawn swing, baby and reach trucks capable of carrying single loads of from ten to a hundred tons, or even any weight that the pavements could sustain.

Finally, we have reached the stage of the motor truck that has half the weight carrying capacity of a standard freight car, and the giant swing, baby and reach trucks have been replaced by similar tractor-drawn vehicles.

MOTOR TRUCK DISPLACING LOCAL FREIGHT TRAINS.—The great improvement that has been made in the construction of highways and the high railroad terminal costs have made it possible in many instances to advantageously utilize motor trucks to replace the rail movement of freight. In many sections of the country, the local freight service maintained by railway companies has been superseded by motor truck service, and the managers of our large railroads are endeavoring

to develop a plan whereby the short hauls of freight which are unprofitable will be performed by motor trucks operated by themselves.

The railroads have apparently been forced to take this action owing to the deep inroads made in their local traffic by the long-haul motor truck companies, who have become potent competitors for this business, and further, because of the fact that many industries now operate their own trucks between their factories and markets.

ECONOMIC VALUE OF MOTOR TRUCK SERVICE.—There is no question but that the motor truck is an economical factor in transportation, but the service has not yet been systematized, and most of the companies operate on a contract basis. Keen competition prevails among the companies and consequently their rates for transportation of freight are unstable.

Regulation of the service and rates of motor truck companies engaged in interstate commerce, under the jurisdiction of the Interstate Commerce Commission, would add greatly to the value of this agency. In the Commission's Investigation, Docket No. 18300, it ruled that "While experience may show that the interstate transportation of property by motor vehicles operating as common carriers on the public highways should be regulated, there does not appear at this time public need therefor." However, the time for regulation of interstate transportation by motor vehicles is not far distant, and it is almost a certainty that ere long experience will demonstrate to the Commission "the public need therefor."

Under the usual method of handling L. C. L. shipments by rail, at least six handlings are necessary; namely,—

- (1) Loaded on the shipper's truck and hauled to the freight station.

- (2) Unloaded at the railroad station platform.
- (3) Loaded into a freight car.
- (4) Unloaded at railroad station at destination.
- (5) Loded on the consignee's truck.
- (6) Unloaded at the store door or warehouse of consignee.

If shipments are transferred en route, two or more handlings are required. If the shipments are transported entirely by motor trucks, only two handlings are required; viz., loaded on the truck at shipper's establishment and unloaded from truck at store door or warehouse of consignee.

When consideration is given to the fact that labor is becoming an increasingly heavy factor in transportation costs, the possible economies by handling short-haul L. C. L. shipments by motor truck are readily observed.

LONG DISTANCE TRUCKING.—Highways and volume of freight permitting it is usually practicable to truck within a radius of fifty miles and, of course, under exceptional conditions for longer distances. Aside from expediting the movement of freight between points of origin and delivery by the use of motor trucks the following elements are to be considered in comparing the cost of motor truck transportation with that by rail.

PACKING.—If goods are moved between point of origin and consignee in the same vehicle, a considerable saving may be accomplished in packing and marking over the need for packing to withstand several handlings which might make marks illegible.

STORAGE.—If within motor trucking distance of market goods may be stocked or stored at factory for

less than it would cost to store them at the point where sold and they would be available almost as quickly.

TRUCKING TO FREIGHT STATION.—Lacking a railroad siding goods would have to be trucked to railroad station.

FREIGHT CHARGES.—This fact should be considered: When shipping by rail or water it is required that many articles be packed in boxes or crates, and freight charges on the articles are *increased* by the weight of these containers. But when shipping direct by motor trucks, it is frequently possible to eliminate cases or crates in the packing of merchandise and thereby the transportation charges are *reduced*, in addition to the saving of cost of containers.

TRUCKING CHARGE.—There will, of course, be the charge for trucking from depot to consignee.

To the above may be added the consideration of deterioration of goods through successive handlings, the likelihood of actual damage, pilferage or loss as well as the need for contracting with two or more transportation agencies if goods are shipped by freight.

Local Trucking

CHOICE OF EQUIPMENT.—In considering the problem of local trucking, selection of motive power may be made from three types of vehicles; viz., horse-drawn, electric and gasoline, and their relative operating cost per unit is in the order named, the horse-drawn being the least expensive and the gasoline truck the most expensive.

The dependable maximum radius of each is:

| | |
|----------------------|-----------------------|
| Horse truck | 15 miles per day |
| Electric truck | 30 miles per day |
| Gasoline truck | over 30 miles per day |

The range of the heavy duty electric truck may be increased by installing a larger battery, by boosting or by replacing batteries during the day, while in the lighter electric trucks, a greater radius is standard. On the other hand, if operated over hills, on heavy roads or if overloaded the efficient mileage of the electric will be reduced.

MANNER OF PROCURING EQUIPMENT.—Trucking may be done by the purchase and operation of trucks by the merchant, if his business is sufficiently large to warrant it; by the hire of trucks on a daily, weekly, or yearly basis from a public truckman, or by the employment of a public truckman paying a rate agreed upon for each package or hundredweight. In some instances, a combination of these arrangements may be worked out to good advantage, as for example owning or contracting for trucks up to an assured minimum requirement and having additional work by a public truckman through hiring trucks on a daily basis, or at a price per hundredweight or package.

In reaching a decision with regard to the above, it is well to remember the old adage, "every man to his trade." The handling of labor, the loading of trucks, maintaining a surplus of equipment to replace that which is out of use for repair and painting, the taking care of trucks so that they do not break down on the road and the taking care of them when they do, as well as the purchase of accessories, care of tires and the maintenance of an operating organization are all a part of the day's work in the routine of a responsible public truckman. If you are not prepared to assume this detail, it is probable that you can afford to pay a profit to a public truckman to do your work and have it done for less than it would cost to do it yourself.

Costs vary so greatly according to local conditions and methods of operators, that no attempt is made to

give cost figures, as the prevailing rates in any locality may easily be ascertained.

ELEMENTS OF COST.—The following enter into the cost of truck operation and to a degree, depending upon locality, have to be reckoned with.

LICENSES.—State licenses have to be obtained, the cost depending upon the rate fixed by the laws of the state. A chauffeur must be hired for motor truck operation.

CITY.—In some cities a Public Cart License must be obtained.

CUSTOM HOUSE.—If freight in bond is to be trucked, a custom house license must be procured in connection with which a security bond is required to guarantee against the loss in transit of bonded goods. The words "Custom House License No." must be painted on each truck used for freight in bond.

INSURANCE.—Accident Liability and Property Damage—No cost of truck operation may be accurately estimated without the liability for personal injury and for property damage being definitely determined by the payment of insurance premiums to cover those contingencies. In these days of high awards in suits for personal injury it is well to insure in amounts ample to cover any judgment that may be obtained, particularly in view of the fact that insurance in excess of minimum amount may be had at a relatively low cost.

COLLISION.—Whether or not collision insurance, which assures payment for damage to your vehicle by another or by contact with obstacles, should be carried by you, is for you to determine by contrasting the likelihood of sustaining damage and of securing payment for such damage from one with whom your vehicle collides against the cost of collision insurance.

FIRE.—Both the truck and goods on truck should be insured against loss by fire while on the road or in a garage or stable.

WORKMEN'S COMPENSATION.—Most states require that workmen's compensation insurance be carried by employers to protect employees in the event of injury while at work. The rate for this insurance varies according to the industry in which the man is employed, for example, the rate for the trucking industry may be 5% and for bridge workers 8%. These rates in turn are subject to variation dependent upon the experience of the individual employer, so that one may have to pay more than the rate fixed for his industry if injuries to his employees are over costly, or if the cost is low his rate may be bettered.

In connection with the placing of compensation insurance, it is well to remember that payment for the accident of today may extend over a period of years to come. Therefore, care should be exercised in the selection of the insurance company, for if it fails to meet awards, you must pay.

If you hire a truck from another and he fails to comply with the law that requires him to carry Workmen's Compensation Insurance and his man on the truck employed by you is injured, you are responsible for any workmen's compensation award in the event that his employer does not pay, or if in the operation of the truck any person should be injured or property damaged, you would be jointly liable with the owner for damages sustained.

Therefore, it is incumbent upon you to see that the truck owners carry Workmen's Compensation Insurance, and that their Accident Liability and Property Damage policies contain a clause relieving you from

any liability that might be incurred by operation of the rented truck under your direction.

In New York State the law provides that if a minor is improperly employed and is injured in such employment, he is awarded double compensation, of which the insurance company may not pay more than one half—the balance to be paid by the employer. Therefore, no minor should be employed by you or by anyone from whom you hire equipment without having working papers made out in proper form.

THEFT.—Insurance against the theft of single packages, or of truck loads from trucks is hard for a public truckman to obtain owing to the unhappy experiences had by insurance companies who in the past have issued these policies. A common practice is for the truckman to limit his liability for the loss of any package to the amount of Fifty Dollars, which should be within his capacity to pay, but the merchant who carries a transit policy must secure permission from his insurance company to accept this limitation from his truckman, which upon the approval of the truckman by the insurance company, is issued in the form of a “rider” to the transit policy for which an additional premium is charged.

BURGLARY.—Burglary insurance policies are issued covering merchandise upon trucks, while in garages or stables overnight. If, as is the usual form of policy, evidence of forcible entry must be shown, you are not covered in the event of a hold-up or if the loss is brought about through the collusion of employes. On the other hand, if you have a “hold-up” policy, a burglary may not be covered. Again, while it is unlikely the safety of goods may be insured in a transit policy from point of origin to consignee. Read your policies carefully to be sure that you are fully covered and that

you are not paying for double coverage of the same thing.

In leaving the subject of insurance, the following thought is submitted for careful consideration. Rates for all insurance are made from the experience of insurance companies in each line and you contribute to the making of your own rate. Do not take the attitude "I should worry, I'm insured"—but endeavor through trying to prevent and trying to minimize payments for losses to lower the cost of your own insurance.

Section 2

Operation

MANAGEMENT.—The management of a large trucking company or the drayage equipment of a great industry, operating either motor or horse-drawn trucks, is somewhat similar to the operation of a railroad and a most skilful traffic management is requisite.

OPERATING.—Trucks are usually sent out from a stable or garage in the early morning and the drivers or chauffeurs are ordered to go to certain points for the purpose of performing some definite task. The trucks are earning money only when loaded and the wheels are moving. The loss by delay in truck movement, particularly in city drayage due to congestion, is a very great item and skilful manipulation is thereby rendered necessary. Endeavors should always be made to have trucks move both ways loaded; i.e., after delivering the initial load, a return load should be secured if possible at the point of delivery or in the vicinity.

METHOD OF OPERATION BY LARGE DRAYAGE COMPANIES.
—One of the largest drayage companies in this country has a system of operation which is very efficient and a description of the method is as follows:

Two men are assigned to the operating desk upon which are four telephones. The first duty of these men on arrival at their desk is to call the stable and garage on the telephone and receive from the superintendent the day's layout. This report is made into a chart on which is shown the name of each driver or chauffeur, the house number and license number of each truck, and the time of departure. The drivers and chauffeurs have orders to call these men on the telephone as soon as each load is delivered, unless assigned to a particular job for the entire day. New orders are then given, the aim being to have the vehicles move loaded in all directions. At any time during the day these operating men can tell approximately the exact location of each vehicle. (*See Trucking Forms Nos. 57, 58, 59, 60, 61, 62, 63 and 64 of Red Book*).

SUPERINTENDENCE.—Foremen in automobile runabouts are patrolling the delivery territory watching the trucks move and giving assistance when necessary—they also keep in touch regularly with the operating men.

Loads which are to be shipped for transportation by steamship or railroad lines are sent out on information received from the foremen, who ascertain and advise the prevailing conditions; i.e., whether or not there is a line of trucks waiting to effect deliveries, and the operators are governed accordingly; loads for the congested lines being withheld until a more favorable time and loads for the open lines being rushed.

In long distance trucking endeavor is always made to secure a return load and low rates may often be secured through knowledge of the routes of long distance motor truck companies.

PERSONNEL.—It is not possible to give an organization chart of a drayage department or company that

could be followed generally, but the chart shown on page 150 would probably serve the purposes of an average drayage department or company.

CONTROL OF DRAYAGE.—If a business concern owns its drayage equipment, it should be under the control of the traffic manager and the various duties shown in the organization chart should be assigned to competent employes.

THE SKILFUL DRAYAGE MANAGER.—The Cartage branch of a traffic department is a fertile field for economical improvement. The employment of a skilled drayage manager and the acquisition of an adequate drayage plant would enable many industries to effect a material decrease in cartage expenses.

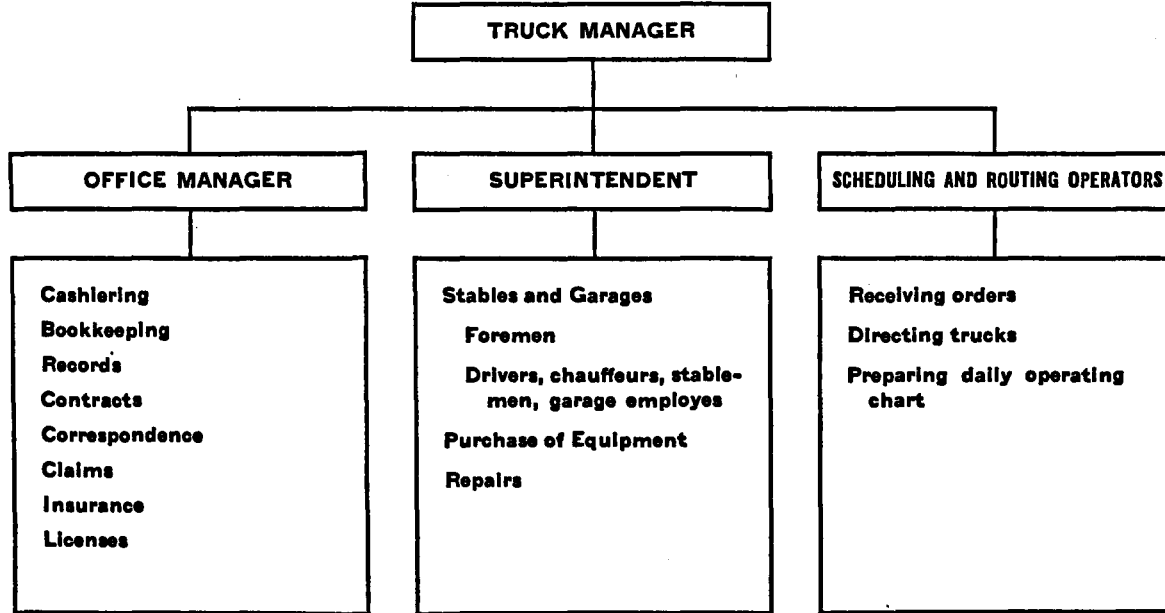
Section 3

Store Door Delivery

DEFINITION.—Store Door Delivery is simply the continuation of the rail or water transportation of freight to the address of consignee by truck and plans to progress the method in moving freight to the efficiency long since attained in the handling of mail and of express matter. A complete system of Store Door Delivery would provide for the continuous movement of freight by one agency or carrier from the address of consignor to the address of consignee.

PRESENT METHOD OF HANDLING FREIGHT.—Under the prevailing method of handling freight, the shipper must truck it to a freight station, the railroad or steamship company signs a bill of lading, transports freight to its terminal nearest address of consignee and sends the consignee a notice to call for it. This practice is wasteful from every viewpoint and is continued only

ORGANIZATION CHART TRUCKING COMPANY



because of the lack of coordination between shippers, carriers and truck operators.

The consignor has to truck freight to the railroad and his trucking charge is relatively high as against a community trucking service with trucks moving fully loaded. Each light loaded truck is wasteful and their number increases delay at terminals. Beyond this his freight rates are higher because of subsequent lack of economy in handling, for the railroad has to serve the trucks of each individual, multiplying the number of operations as against an organized trucking service. Arriving at terminal, notices of arrival must be sent to consignee and storage space provided at terminals for merchandise until consignee sends for same. The expense of sending trucks of many consignees and the need for sorting freight at terminals to permit each consignee to select his freight, is costly, increasing terminal overhead and loading charges. Freight may be brought in only to the capacity of terminals and this results in further slowing the movement of freight.

The consignee pays higher trucking charges due to partly loaded trucks, delays at terminals, high loading charges and street congestion.

This spread of waste is reflected in a higher cost for transporting freight than is justified. Some large cities already have in part a store door delivery and the movement to make such an arrangement is national in scope.

Section 4

Warehousing

VARIOUS TYPES OF WAREHOUSING.—To a considerable degree, the Merchandise Warehouse has become a necessary adjunct to traffic departments in order to handle

their business to the best advantage and meet the growing transportation requirements for efficient distribution. (*See Warehouse Receipt Forms 67 and 68 of Red Book*).

There are several types of warehouses, some of which are specially adapted for certain kinds of commodities. For instance, cold storage warehouses for perishable foods, warehouses fitted for storage of cotton, wool, and tobacco, Bonded Warehouses for storage of goods in the custody of the United States Customs and Internal Revenue Department, and the Merchandise Warehouses equipped for storing practically all kinds of commodities and which handle the larger portion of the storage business. (*See "U. S. Warehouse Act" selection of Red Book*).

HOW WAREHOUSES AID IN DISTRIBUTION:—Warehouse facilities and services may be utilized profitably as follows:

1. For storage of seasonal commodities, over-production, goods for distribution, assembling of freight for forwarding, etc.

2. For storage of food products, drugs and other articles which are shipped in solid carloads to the warehouse at regular intervals, depending on the rate of consumption, and are distributed as orders are received. Goods sold to local customers are either called for or are delivered to them by truck, and the goods sold to customers located in various points of that territory are shipped to them either by railroad or motor truck.

3. Frequently the warehouse acts as the consignee for a "Pool" car, which is a car loaded solid with a number of less-than-carload shipments consigned to the warehouse for distribution to various customers at destination, or for reshipment to customers located in that

section. By this method of shipping, a saving in transportation charges of the difference between the less-than-carload and carload rates is effected, which is a source of mutual profit to both the warehouse and shipper, and on the other hand, buyers receive the benefit of through car transportation, and possibly reduced prices.

4. Many other valuable services are rendered by the Merchandise Warehouses, which are set forth in the Freight Traffic Red Book in the treatise, entitled "Warehousing and Distribution," and by study of this treatise important, useful knowledge of this subject will be obtained.

INSURANCE.—Attention is called to the fact that it is not customary for merchandise warehousemen to insure goods on behalf of owner, except when specifically requested to do so. Therefore, the subject of insurance should receive careful consideration in warehouse negotiations. But when the warehouseman acts as an agent of owner, he must take the same precautions against the hazard of fire as the owner himself would do in his own establishment.

STORAGE OF FREIGHT BY CARRIERS.—When consignees fail to remove freight from the delivery stations of the transportation companies within the free time allowed, it is usually placed in a public warehouse at expense and risk of owner, and the consignees are promptly notified of the action taken. On receipt of a notice of this character, consignee should at once arrange to cover the goods with insurance, or immediately remove the freight.

As a rule, storage charges are on a monthly basis; that is, one month's storage charge is assessed by the warehouseman on freight placed in his custody, whether goods are held the full month or any fraction thereof. (*See "Storage" section of Red Book*).

Chapter XIV

ROUTING

COLLATERAL READING: In the Freight Traffic Red Book—
Routing.

Section 1

Law Governing Routing

SHIPPER MAY DESIGNATE ROUTING.—Under the provisions of the Interstate Commerce Act, where two or more through routes and through rates have been established between point of shipment and destination, shipper has the right to designate the route via which he desires shipment to move, and where competing lines of railroads constitute a portion of the through route, shipper may determine the intermediate line. (*See Conference Ruling of I. C. C. relating to "Routing"*).

ROUTES VIA WHICH RATES APPLY.—The route or routes via which rates apply are either shown in the tariff or a routing guide, reference to which is made in the tariff (See I. C. C. Tariff Rule 4 [k]). When a tariff contains no routing directions, the rates shown therein are applicable between the points named therein via any or all of the lines parties thereto:

IMPORTANCE OF ROUTING.—The lawful charge for transportation of a shipment is the rate via the route over which the shipment moves contained in a tariff, or tariffs, on file with the Interstate Commerce Commission, and the Commission has ruled that the agent of carrier must forward an unrouted shipment via the cheapest reasonable route, but, for various reasons, he may not do so. However, if the misrouting should be subsequently discovered, claim for the excess charges incurred through error in routing would be collectible.

Most of the errors of shippers and carriers in routing shipments occur when through rates are constructed by combination. In such cases, it is necessary to determine the lowest lawful combination rate and route shipment via the gateway or basing point on which this rate is built. Of course, if shipper does not specify routing, it is incumbent on carrier to apply the lowest lawful combination rate. Yet carrier may not route shipment via the junction on which the lowest lawful combination could be made, and the excess charge thus incurred becomes one of the many transportation losses sustained by shippers who do not employ competent traffic men to handle their shipping, because of the fact that, owing to their lack of traffic knowledge, no claim will be made; hence the necessity for a traffic man who is proficient in transportation law and in the application of tariffs.

The skilful traffic man invariably routes his shipments, and also ascertains if the consignments received inbound are correctly routed. When we consider the fact that thousands of unrouted shipments are handled by carriers, it is reasonable to assume that many errors are made. Therefore, by correct routing of outbound shipments and by checking the inbound routing of freight received, an experienced traffic man may save a large amount in transportation charges.

Although the importance of routing has been strongly emphasized, after all, when a shipper or a traffic man is uncertain as to correct routing, it is advisable to specify routing in bill of lading, inasmuch as the initial carrier must protect the lowest applicable rate. Then, at a subsequent period, if it is found that a lower rate was available, no difficulty will be experienced in collecting a claim for the excess charges.

DETERMINATION OF ROUTE.—The first thing to determine in making a shipment by freight is the name of

the railroad station or boat landing at which consignee will receive the goods, and this determination must be based on fact and not on conjecture. The destination and terminal delivery should be stated so definitely that there will be no question as to its location.

The tariff, or tariffs, applicable should then be consulted and from the available routes should be selected the route commensurate with the service required; i.e., a direct standard line, if time is important, or a rail-and-water route over which a lower rate obtains, if cost must be considered and time is non-essential.

The shipping department should be furnished with the current issue of a standard Shippers' Guide and it should be consulted before shipping to an obscure or unfamiliar point, when complete routing directions are not given on the purchaser's order for the goods.

Section 2

The Routing Sheet and the Route Map

ROUTING SHEET.—In order to facilitate the handling of traffic, large traffic departments should have prepared for the guidance of their shipping departments a *Routing Sheet*, the method and the preparation being governed by the volume of the traffic. It is advisable to make a separate *Routing Sheet* for each State in which goods are distributed.

The specimen Routing Sheets, with Keys, shown on 157 to 163, inc., were prepared by the traffic department of one of the largest industries in this country which forwards and receives freight to and from almost every State, and also has a large foreign commerce. The traffic manager has sheets prepared governing the traffic from its principal factories to practically all of the States, a separate Routing Sheet being made for

THE ROUTING SHEET AND THE ROUTE MAP 157

each State. The specimen Routing Sheets A and B are applicable to the State of Michigan which is located in both the Official and Western Classification territories, and the Routing Sheets C and D are applicable to the State of Kansas, located in the Western Classification territory.

KEYS.—The keys furnished are applicable only to traffic from New York City, but the Routing Sheet contains symbols designating the routes from their various plants, a separate key, or keys, being provided for each plant for traffic forwarded from the point at which it is located. The “New York Routing Key—West” shows the routes via which traffic from New York City, destined to points in the Western Classification territory, is routed by this traffic department, and the routes in this key are indicated by letters only. The “New York Routing Key—East” shows the routes via which traffic is forwarded to all other points in the United States located in the Official and Southern Classification territories, and these routes are indicated by numbered letters or numbers.

NEW YORK ROUTING KEY—EAST

| Route Letter | Freight Routing | Route Letter | Freight Routing |
|--------------|---------------------------|--------------|-------------------------------------|
| 1... | Erie R R | 3b... | P R R c/o Emp Line c/o D & C Nav Co |
| 1a... | Erie R R | 3c... | P R R c/o S U L c/o I C |
| 1b... | Erie R R c/o G T | 3d... | P R R c/o Can Sou Line |
| 1c... | Erie R R c/o N Y C & St L | 3f... | P R R c/o Emp Line |
| 1d... | Erie R R c/o P M | 3g... | P R R c/o Atl Coast Desp |
| 2... | D L & W | 3h... | P R R c/o Seaboard Desp |
| 2a... | D L & W c/o Wab | 3i... | P R R c/o East & Sou Desp |
| 2b... | D L & W c/o Lack Line | 3k... | P R R c/o Sou Ry |
| 2c... | D L & W c/o G T | 3m... | P R R c/o N & W |
| 2d... | D L & W c/o P M | 3n... | P R R c/o C & O |
| 2m... | D L & W c/o N Y C | 3p... | P R R c/o N S |
| 2p... | D L & W c/o D & B S B Co | 3q... | P R R c/o Rich-Wash Line |
| 2q... | D L & W c/o C & B T Co | 3u... | P R R c/o S A L c/o D & S |
| 2t... | D L & W c/o M C | 3v... | P R R c/o Vir Ry |
| 3... | P R R | 4... | N Y C |
| 3a... | P R R c/o S U L | 4a... | N Y C |
| | | 4b... | N Y C |

NEW YORK ROUTING KEY—EAST

| Route Letter | Freight Routing | Route Letter | Freight Routing |
|--------------|-------------------------------------|--------------|---|
| 4c... | NY C | 25b... | ODT Co c/o S A L |
| 4d... | NY C | 25c... | ODT Co c/o P A L |
| 4e... | NY C c/o Can Sou Line | 25d... | ODT Co c/o VT & G |
| 4w... | NY C c/o M D T Co c/o L E & W | 25e... | ODT Co c/o N & W Desp |
| 4x... | NY C c/o Great Lakes Transit Co. | 25f... | ODT Co c/o C G D |
| | | 25g... | ODT Co c/o K D |
| | | 25h... | ODT Co c/o P A L c/o T C |
| 5... | W S | 25i... | ODT Co c/o N & W |
| 5a... | W S c/o Wab | 25j... | ODT Co c/o C & O |
| 5b... | W S c/o N Y C | 25k... | ODT Co c/o P A L |
| 5c... | W S c/o M C | 25m... | ODT Co c/o A C L c/o A & W P c/o M & O |
| 5d... | W S c/o G T | 25p... | ODT Co c/o A C L c/o A & W P |
| 5e... | W S c/o N Y C & St L | 25s... | ODT Co c/o N S |
| 6... | N Y N H & H (Pier 37, E R) | 25u... | ODT Co c/o N S |
| 7... | N Y N H & H (Pier 39, E R) | 25v... | ODT Co c/o Vir Ry |
| 8... | C R R of N J c/o Reading | 27... | Clyde Line |
| 9... | C R R of N J | 27a... | Clyde Line c/o A C L |
| 10... | B & O | 27b... | Clyde Line c/o S A L |
| 10a... | B & O c/o Cont Line | 27c... | Clyde Line c/o Sou Ry |
| 11... | L V | 27d... | Clyde Line c/o G S & F |
| 11a... | L V c/o Traders Desp | 27m... | Clyde Line c/o Chas F F Line c/o M & O |
| 11b... | L V c/o N Y C | 27t... | Mallory Line c/o A B & A at Bruns |
| 11c... | L V c/o Wab | 30... | Ocean S S Co |
| 11d... | L C c/o M C | 30a... | Ocean S S Co c/o A C L |
| 11e... | L V c/o G T | 30b... | Ocean S S Co c/o S A L |
| 11f... | L V c/o P M | 30k... | Ocean S S Co c/o C of Ga |
| 11g... | L V c/o N Y C & St L c/o C I & L | 34... | C V |
| 11p... | L V c/o Great Lakes Transit Co | 34a... | C V c/o Natl Desp |
| 11q... | L V c/o C & B Trans Co | 35... | Hudson Nav Co |
| 12... | N Y O & W | 36... | Joy Line |
| 12a... | N Y O & W c/o Ont Cent Desp | 38... | Bridgeport Line |
| 13... | N Y C c/o D & H | 39... | Fall River Line |
| 14... | Long Isl | 40... | Hartford Line |
| 15... | Staten Isl RT Co | 41... | Met S S Co |
| 16... | C R R of N J c/o B R D | 41b... | Met S S Co c/o G T |
| 17... | C R R of N J c/o C S D | 41c... | Met S S Co c/o M C |
| 18... | C R R of N J c/o Sou States Desp | 42... | Met S S Co |
| 20... | N Y & N J S B Co | 43... | New Bedford Line |
| 21... | Truck | 44... | New Haven S B Line |
| 25... | ODT Co | 45... | Norwich Line |
| 25a... | ODT Co c/o A C L | 46... | Providence Line |
| | | 47... | Blackstone Valley Trans Co |
| | | 48... | Ben Frank Trans Co |

THE ROUTING SHEET AND THE ROUTE MAP 159

NEW YORK ROUTING KEY—EAST

| Route Letter | Freight Routing | Route Letter | Freight Routing |
|--------------|----------------------------------|--------------|---------------------------|
| 50.... | Morgan Line | 63 | Middlesex Trans Co |
| 51.... | Mallory Line | 66.... | Chelsea Line |
| 52.... | Hudson Nav Co | 67.... | Merchants Stamford Line |
| 53.... | Cent-Hud S B Co | 69.... | Merchants Bridgeport Line |
| 54.... | Saugerties Line | 70.... | N E & T Co |
| 56.... | Catskill Line | 71.... | Colonial Nav Co |
| 57.... | Morton Line | 72.... | Thames River Line |
| 59.... | North River S B Co (Str Raleigh) | 73.... | Inland Waterways S S Co |
| 62.... | Merchants S B Co | 74.... | Patten Line |
| | | 75.... | Lower Hudson S B Co |

NEW YORK ROUTING KEY—WEST

| | | | |
|--------|---|--------|--|
| A.... | L V c/o N Y C & St L c/o CB & Q at St L | G.... | L V c/o N Y C & St L c/o CM St P & P at Chgo |
| AA.... | L V c/o N Y C & St L c/o CB & Q at Chgo | GT.... | L V c/o N Y C & St L c/o Goodrich Trans Co |
| B.... | L V c/o N Y C & St L c/o CB & Q at St L c/o Nor Pac at Billings | GU.... | L V c/o N Y C & St L c/o C M St P & P at Chgo c/o Union Pac at Omaha |
| C.... | L V c/o N Y C & St L c/o C & A | H.... | L V c/o N Y C & St L c/o C G W at Chgo |
| CB.... | L V c/o N Y C & St L c/o St L S W at St L | I.... | L V c/o N Y C & St L c/o I C at Chgo |
| CC.... | L V c/o N Y C & St L c/o CB & Q at Chgo c/o Nor Pac | IM.... | L V c/o N Y C & St L c/o St L I M & S at St L |
| CP.... | New Haven Line c/o C P Desp | J.... | D L & W c/o Wab |
| D.... | L V c/o N Y C & St L c/o CB & Q at Chgo c/o Great Nor | JX.... | D L & W c/o P M via Mackinaw City |
| DB.... | L V c/o N Y C & St L c/o CB & Q at St L c/o Grt Nor at Billings | K.... | L V c/o N Y C & St L c/o M K & T at St L |
| E.... | L V c/o N Y C & St L c/o Mo Pac at St L | L.... | L V c/o N Y C & St L c/o St L & S F at St L |
| ER.... | L V c/o N Y C & St L c/o C R I & P at St L | LA.... | L V c/o N Y C & St L c/o "Across the Lake" |
| ES.... | L V c/o N Y C & St L c/o Mo Pac at St L c/o A T & S F at Kan City | LE.... | L V c/o N Y C & St L c/o Mo Pac at St L |
| EU.... | L V c/o N Y C & St L c/o Mo Pac at St L c/o Union Pac at Kan City | LL.... | L V c/o N Y C & St L c/o Frisco at St L |
| F.... | L V c/o N Y C & St L c/o C & N W at Chgo | LM.... | L C c/o N Y C & St L c/o Mo Pac at St L |
| FU.... | L V c/o N Y C & St L c/o C & N W at Chgo c/o Union Pac at Omaha | LR.... | L V c/o N Y C & St L c/o C R I & P at St L |
| | | LS.... | L V c/o N Y C & St L c/o AT & S F at Chgo |
| | | M.... | Morgan Line |
| | | MG.... | Morgan Line c/o I & G N |
| | | MH.... | Morgan Line c/o G H & H |
| | | MK.... | Morgan Line c/o M K & T |

NEW YORK ROUTING KEY—WEST

| | | | |
|--------------|--|--------------|---|
| Route Letter | Route Freighting | Route Letter | Freight Routing |
| ML... | Mallory Line | S..... | L C c/o N Y C & St L c/o AT & SF at Chgo |
| MM... | Morgan Line | SL.... | L V c/o N Y C & St L c/o CB & Q at Chgo c/o D & R G c/o L A & S L |
| MR... | Morgan Line c/o L & A at N O | SO.... | L V c/o N Y C & St L c/o Soo Line at Chgo |
| MS... | Morgan Line c/o G C & S F | SW.... | L V c/o N Y C & St L c/o St L S W at St L |
| MV... | Morgan Line c/o T & B V | TC.... | Texas City S S Co |
| MX... | Morgan Line c/o Tex Mid | V..... | Clyde S S C c/o V T & G c/o V S & P at Vicksburg |
| N.... | D L & W c/o Lack Line | X.... | L V c/o N Y C & St L c/o Mo Pac at St L c/o D & R G c/o West Pac |
| R.... | L V c/o N Y C & St L c/o C R I & P at Chgo | | |
| RR... | L V c/o N Y C & St L c/o C R I & P at St L | | |
| RU... | L V c/o N Y C & St L c/o C R I & P at Chgo c/o Union Pac | | |

ROUTING ORDER—A
TO SPECIFIC POINTS IN MICHIGAN

Be governed by routing shown under group number opposite your city

New York.... 1 Baltimore.... 2 Charleston.... 3 Louisville.... 4
Cleveland.... 2 Chicago..... 2 New Orleans.. 3 Evansville... 4

| | GROUPS | | | |
|-----------------------------|--------|----|----|----|
| TO | 1 | 2 | 3 | 4 |
| Adrian, Lenawee..... | 2a | 10 | 2k | 4b |
| Alma, Gratiot..... | 2c | 3j | 2k | 25 |
| Alpena, Alpena..... | 2d | 3x | 2k | 25 |
| Ann Arbor, Washtenaw..... | 2t | 3j | 2k | 31 |
| Bad Axe, Huron..... | 11j | 3x | 2k | 25 |
| Battle Creek, Huron..... | 2t | 10 | 2k | 29 |
| Bay City, Bay..... | 11j | 3x | 2k | 31 |
| Benton Harbor, Berrien..... | 2d | 3x | 2h | 4 |
| Big Rapids, Mecosta..... | 2d | 3a | 2k | 3r |
| Buchanan, Berrien..... | 2t | 10 | 2k | 31 |
| Cadillac, Wixford..... | 3a | 3a | 2k | 3r |
| Calumet, Houghton..... | F | F | F | F |
| Charlotte, Eaton..... | 2t | 10 | 2k | 29 |
| Cheboygan..... | 2t | 10 | 2k | 31 |
| Coldwater, Branch..... | 4 | 4 | 2k | 30 |
| DETROIT, Wayne..... | 2a | 3 | 2k | 31 |
| Escanaba, Delat..... | F | F | F | F |
| Flint, Genesee..... | 11f | 3x | 2k | 29 |
| Grand Rapids, Kent..... | 2d | 3a | 2k | 3r |
| Greenville, Montcalm..... | 2d | 3x | 2k | 29 |
| Hancock, Houghton..... | F | F | F | F |
| Hillsdale, Hillsdale..... | 4b | 4 | 2k | 30 |
| Holland, Ottawa..... | 2d | 3x | 2k | 25 |
| Houghton, Houghton..... | F | F | F | F |
| Iron Mountain..... | G | G | G | G |

THE ROUTING SHEET AND THE ROUTE MAP 161

| TO | GROUPS | | | |
|----------------------------------|--------|----|----|----|
| | 1 | 2 | 3 | 4 |
| Iron River, Iron..... | F | F | F | F |
| Ironwood, Gogebic..... | F | F | F | F |
| Ishpeming, Marquette..... | F | F | F | F |
| JACKSON, Jackson..... | 2t | 3y | 2k | 4 |
| KALAMAZOO, Kalamazoo..... | 2t | 3a | 2k | 3r |
| Lansing, Ingham..... | 2t | 3y | 2k | 29 |
| Lapeer, Lapeer..... | 11e | 3y | 2k | 25 |
| Ludington, Mason..... | 2d | 3x | 2k | 25 |
| Manistee, Manistee..... | 2d | 3x | 2k | 25 |
| Manistee, Scholcraft..... | JX | JX | JX | SO |
| Marquette, Marquette..... | G | G | G | G |
| Menominee, Menominee..... | G | G | G | G |
| Monroe, Monroe..... | 2d | 3 | 2k | 30 |
| Mt. Clemens, Macomb..... | 2e | 3s | 2k | 29 |
| MUSKEGON, Muskegon..... | 2d | 3a | 2k | 25 |
| Niles, Berrien..... | 2t | 10 | 2h | 4 |
| Owasso, Shiawassee..... | 2e | 3j | 2k | 31 |
| Petosky, Emmett..... | 2d | 3i | 2k | 3r |
| Pontiac, Oakland..... | 2e | 3s | K | 29 |
| Port Huron, St. Clair..... | 11j | 3s | K | 29 |
| Saginaw, Saginaw..... | 11j | 3x | 2k | 31 |
| St. Johns, Clinton..... | 2e | 3s | 2k | 29 |
| Sault Ste. Marie, Chippewa..... | JX | JX | JX | JX |
| South Haven, Van Buren..... | 2t | 2y | 2k | 31 |
| Sturgis, St. Joseph..... | 11b | 3 | 2k | 3r |
| Traverse City, Gd. Traverse..... | 2d | 3a | 2k | 25 |

ROUTING ORDER B—TO POINTS NOT NAMED IN A

To points not given in A, refer to Shippers' Guide and ascertain name of railroad on which town is located and use route given below for points on that railroad. If town for which shipment is intended is not on a railroad and the order does not show the railroad station at which goods should be delivered, insert the railroad station according to Shippers' Guide and use route to the railroad point.

| RAILROADS | GROUPS | | | |
|-------------------------------------|--------|----|----|----|
| | 1 | 2 | 3 | 4 |
| Ann Arbor..... | 2a | 3j | 3k | 4 |
| Arcadia & Betsey River..... | 2d | 3x | 2k | 25 |
| Boyne City Gaylord & Alpena..... | 2t | 3y | 2k | 3r |
| Chicago Kalamazoo & Saginaw..... | 2t | 3a | 2k | 3r |
| Big Four (C. C. C. & St. L.)..... | 4d | 10 | 2h | 4 |
| Detroit Bay City & Western..... | 11f | 3x | 2k | 31 |
| Detroit & Toledo Short Line..... | 2e | 3a | 2k | 4 |
| East Jordan & Southern..... | 2d | 3x | 2k | 25 |
| Erie & Michigan Ry. & Nav. Co..... | 11f | 3x | 2k | 25 |
| Grand Trunk..... | 2e | 3s | 2k | 29 |
| Kalamazoo Lake Shore & Chicago..... | 2t | 3a | 2k | 3r |
| Ludington & Northern..... | 2d | 3x | 2k | 25 |
| Manistee & Northeastern..... | 2d | 3x | 2k | 25 |
| Michigan Central..... | 2t | 3y | 2k | 31 |
| New York Central..... | 4 | 4 | 2h | 4b |
| Pennsylvania..... | 3 | 3 | 6a | 3 |
| Pere Marquette..... | 2d | 3x | 2k | 25 |
| Rapid..... | 2e | 3s | 2k | 29 |

| RAILROADS | GROUPS | | | |
|--|--------|----|----|----|
| | 1 | 2 | 3 | 4 |
| Wabash..... | 2a | 3a | 2k | 6 |
| Blaney & Southern (Northern Peninsula) | JX | JX | JX | SO |
| C. M., St. P. & P..... | G | G | G | G |
| C. & N. W..... | F | F | F | F |
| Copper Range..... | G | G | G | G |
| Duluth South Shore & Atl..... | JX | JX | JX | F |
| Escanaba & Lake Superior..... | F | F | F | F |
| Manistique & Lake Superior..... | JX | JX | JX | SO |
| Mineral Range..... | F | F | F | F |
| Soo Line..... | JX | JX | JX | SO |
| Munising Marquette & S. F..... | JX | JX | JX | F |
| Ontonagon..... | G | G | G | G |
| Wisconsin & Michigan..... | G | G | G | G |

ROUTING ORDER—C
TO
KANSAS

Be governed by routing shown under group number opposite your city
 New York.... 1 Baltimore.... 2 Charleston.... 3 Louisville.... 4
 Cleveland.... 2 Chicago..... 2 New Orleans.. 3 Evansville... 4

| TO | GROUPS | | | |
|-------------------------------|--------|----|----|----|
| | 1 | 2 | 3 | 4 |
| ABILENE, Dickinson..... | S | S | ES | S |
| Almena, Norton..... | R | R | ER | ER |
| Altamont, Labette..... | L | L | LL | L |
| Altoona, Wilson..... | E | E | E | E |
| ANTHONY, Harper..... | S | S | ER | ER |
| ARGENTINE, Wyandotte..... | S | S | ES | S |
| ARKANSAS CITY, Cowley..... | S | S | LL | L |
| ATCHISON, Atchison..... | R | R | E | E |
| Atwood, Rawlins..... | AA | AA | A | A |
| Axtell, Marshall..... | E | E | E | E |
| Beloit, Mitchell..... | E | E | E | FU |
| Burlington, Coffey..... | S | S | K | K |
| Calvert, Norton..... | R | R | ER | ER |
| Carden, Marshall..... | EU | EU | EU | EU |
| Chapman, Dickinson..... | EU | EU | EU | EU |
| CHERRYVALE, Montgomery..... | L | L | LL | L |
| COFFEYVILLE, Montgomery..... | K | K | K | K |
| CONCORDIA, Cloud..... | AA | AA | E | E |
| Ellsworth, Ellsworth..... | L | L | LL | L |
| EMPORIA, Lyon..... | S | S | K | K |
| FORT SCOTT, Bourbon..... | L | L | LL | L |
| GALENA, Cherokee..... | L | L | LL | L |
| GREAT BEND, Barton..... | S | S | E | E |
| Hanover, Washington..... | AA | AA | A | A |
| Hays, Ellis..... | EU | EU | EU | EU |
| Hollis, Cloud..... | AA | AA | A | A |
| HORTON, Brown..... | R | R | ER | ER |
| HUTCHINSON, Reno..... | R | R | ER | ER |
| INDEPENDENCE, Montgomery..... | S | S | E | E |
| LEAVENWORTH, Leavenworth..... | R | R | E | E |
| Logan, Phillips..... | E | E | E | E |

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| TO | GROUPS | | | |
|-----------------------------|--------|----|----|----|
| | 1 | 2 | 3 | 4 |
| Lorraine, Ellsworth..... | L | L | LL | L |
| Lyons, Rice..... | L | L | LL | L |
| MANHATTAN, Riley..... | R | R | ER | ER |
| Marysville, Marshall..... | EU | EU | EU | EU |
| Morganville, Clay..... | ER | ER | ER | ER |
| Mound City, Linn..... | E | E | E | E |
| Oakley, Logan..... | S | S | E | E |
| OTTAWA, Franklin..... | S | S | E | E |
| PARSONS, Labette..... | L | L | LL | L |
| PITTSBURG, Crawford..... | L | L | LL | L |
| Plaster Mill, Marshall..... | E | E | E | E |
| SALINA, Saline..... | E | E | E | E |
| TOPEKA, Shawnee..... | R | R | ER | ER |
| Troy, Doniphan..... | R | R | ER | ER |
| Viola, Sedgwick..... | S | S | E | E |
| WELLINGTON, Sumner..... | R | R | ER | ER |
| WICHITA, Sedgwick..... | R | R | LL | L |
| WINFIELD, Cowley..... | L | L | LL | L |
| Winona, Logan..... | EU | EU | EU | EU |
| Yale, Crawford..... | E | E | E | E |

ROUTING ORDER D—TO POINTS NOT NAMED IN C

To points not specified, refer to the Shippers' Guide and ascertain name of railroad on which town is located and use route given below for points on that railroad. If town for which shipment is intended is not on a railroad and the order does not show the railroad station at which goods should be delivered, insert the railroad station according to the Shippers' Guide and use route to the railroad point.

| RAILROADS | GROUPS | | | |
|---|--------|----|----|----|
| | 1 | 2 | 3 | 4 |
| Atchison, Topeka & Santa Fe..... | S | S | ES | S |
| Chicago, Burlington & Quincy..... | AA | AA | A | A |
| Chicago, Rock Island & Pacific..... | R | R | ER | ER |
| Kansas City, Clinton & Springfield..... | S | E | LL | E |
| Kansas City, Mexico & Orient..... | S | E | LL | EG |
| Kansas City Southern..... | S | S | LL | E |
| Kansas, Oklahoma & Gulf..... | E | E | LL | E |
| Leavenworth & Topeka..... | R | R | E | E |
| Midland Valley..... | S | S | LL | L |
| Missouri, Kansas & Texas..... | K | K | K | K |
| Missouri Pacific..... | E | E | E | E |
| Salina Northern..... | EU | EU | EU | EU |
| St. Joseph & Grand Island..... | R | R | E | E |
| St. Louis, San Francisco..... | L | L | LL | L |
| Union Pacific..... | EU | EU | EU | EU |
| Wichita Northwestern..... | S | S | ER | ER |

INTERPRETATION OF ROUTING SHEETS.—The following examples illustrate how routing is determined: As soon as the destination is located on Routing Sheet, the index number or letter indicates the key applicable; i.e., Key-East, Key-West.

For shipments to Alma, Gratiot County, Michigan, this company has selected the route designated by the characters "2c." "New York Routing Key—East" shows the route "2c" as D., L. & W., c/o G. T.

Calumet, Houghton County, Michigan, is in the Western Classification territory and the route selected is designated by the letter "F." The "New York Routing Key—West" shows the "F" routing to be L. V. c/o N. Y. C., & St. L. c/o C. & N. W. at Chicago.

For shipments to Leavenworth, Kansas, the routing selected is designated by the letter "R." The "New York Routing Key—West" shows the "R" routing to be L. V. c/o N. Y. C. & St. L. c/o C. R. I. & P. at Chicago.

Madison, Greenwood County, Kansas, is located on the Missouri Pacific Railroad and is not included in the points named on Routing Order C. The Routing Order D shows that the routing selected for the points on the Missouri Pacific Railroad is designated by the letter "E." The "New York Routing Key—West" shows the "E" routing to be L. V. c/o N. Y. C. & St. L. c/o Mo. Pac. at St. L.

It is not our intention to convey the idea that the Routing Sheets shown in this book indicate the correct or preferred routing of freight forwarded from New York City to points in Michigan and Kansas. The routing shown is the preference of the traffic manager of this large industry. Other traffic managers would probably prefer some other routes, being governed largely by the location of their industries.

Some traffic departments have adopted a plan of compiling Specific Routing Sheets. For example, a sheet is made out for each State, and the points located therein, to which shipments are forwarded, are listed in alphabetical order and opposite each point, the routing

is specified in full. As a rule, these sheets are turned over to the order department, and as the orders are made out, the routing is entered on each, whereupon they are sent to the shipping department. This method relieves the shipping clerk of considerable responsibility and, moreover, expedites the shipping. Yet, other traffic departments, which employ this plan, arrange to have the routing sheets sent direct to the shipping clerk and, as he makes out the bill of lading for each shipment, he enters thereon the designated routing.

While the work involved in the preparation of these sheets expends considerable time, yet the simplicity of the compilation with its concise routing instructions, renders misrouting impossible; hence, it is discernible that the time utilized in collocating this information is well invested.

MAP OF TRANSPORTATION LINES.—The traffic man should be so familiar with this map that he can trace the main lines of the important carriers and should know the merits of the various systems, their relations to each other, the large railroad centers and their junctions.

The map furnished with this course should be carefully studied in order that the principal arteries of traffic will be constantly visualized in the student's mind.

This map is not intended to be used for practical purposes, but simply to give a bird's-eye view of the principal transportation systems of the country. In order to determine the route for a shipment, the tariff, or tariffs, applicable should always be consulted.

It will be observed, in studying the map, that the important gateways, or junctions, and also the important terminals are represented by solid red circles. The

key to the map is shown in the lower right-hand corner and it will be of assistance in locating the various lines. The table in the lower left-hand corner shows the short line distance between the important railroad centers in the United States.

PRACTICAL USE OF RAILROAD MAPS.—In the Official Railway Guide is shown a map of important railroad systems or lines, and a good method of learning how to select a route to a competitive point is to consult the maps published in this Guide and trace the course of a particular railroad, for the purpose of ascertaining the points where it crosses other lines, whether it is direct or circuitous, and the lines with which it connects at various junctions. Furthermore, by practice of this method, the traffic man will soon become familiar with the important commercial centers served by each railroad.

Section 3

Ignorance of Fundamentals Invites Loss

TRAFFIC INQUIRY.—Recently an eminent traffic man in addressing a large number of the members of a traffic club, asked them how and why they would route freight between two certain points, and not one volunteered an answer. The great fault with the method of transacting transportation business is that it is performed in a mechanical manner and the *reason why* is not considered. If a man will stop to ask *why* he does a certain thing or why it could not be done better some other way, he will acquire one of the fundamentals of success.

Not very long ago a traffic man asked a large shipper in Chicago via what line he was forwarding his shipments to a certain concern in New York City and he replied that he was shipping by the "A" Railroad. When asked why he patronized that line, he said, "Be-

cause I have always shipped via that line and I like the 'A' Railroad." "Don't you know," said the traffic man, "that your customer's establishment is located close to the terminal of the 'B' Railroad and that if you shipped by that line you would probably save him a considerable amount of cartage?" He did not know, and it had never before been brought to his attention, but he said that he would investigate and hereafter use the lines having the nearest terminals to his customers.

CUSTOM VERSUS KNOWLEDGE.—Many shippers patronize a particular line simply because of custom, or because it is well known and liked. They do not know that by forwarding some of their shipments via other lines they might save cartage expense to their customers and that occasionally differential lines may be used advantageously. Inbound shipments are frequently received at terminals quite distant from the consignees' places of business, and as a matter of custom they send for the freight without complaint, not realizing that if they would keep in touch with their purchasing department and furnish it with proper directions for terminal routing, large unnecessary expense would be saved.

EFFORTS OF TRADE ASSOCIATIONS.—For a long time trade associations have been endeavoring to educate their members on two points:

1. To get *purchasers* to specify in their orders the terminal delivery desired.
2. To have *shippers* write the terminal routing in the bill of lading.

Their efforts have been very successful, but the country is large and many merchants still remain in ignorance of the importance of traffic knowledge and the necessity of a traffic department. Even one skillful traffic man may constitute an effective traffic department.

Chapter XV

DEMURRAGE AND STORAGE

COLLATERAL READING: In the Freight Traffic Red Book—
Demurrage Rules and Charges; Storage.

Section 1

Demurrage Rules and Practice

DEFINITION OF DEMURRAGE.—Demurrage is the charge assessed by carriers in accordance with the Freight Tariff announcing the National Car Demurrage Rules and Charges issued by the American Railway Association Tariff Bureau, and applies after the expiration of the free time limit on cars held by or for shippers or consignees for loading and unloading, or for any other purpose. (*See Conference Rulings of I. C. C. relating to "Demurrage" Red Book*).

NECESSITY FOR DEMURRAGE CHARGE.—In the interests of both the public and the carriers, it is necessary that an adequate supply of the various kinds of cars should be kept in service. Cars are profitable to the railroads only when they are transporting freight, and it is a matter of the greatest importance to shippers that cars should be available for prompt loading of their shipments. Therefore, the purpose of the demurrage charge is to impose a penalty on shippers and consignees for their delay in handling cars, and it is assessed for the purpose of preventing, as far as possible, any unreasonable detention.

CARS SUBJECT TO RULES.—Cars of either railroad or private ownership held for or by consignors or consignees for loading, unloading, forwarding directions, or for any other purpose, are subject to these demurrage rules with certain exceptions specified in the Tariff. (*See "Demurrage Tariff" of Red Book*).

FREE TIME ALLOWED.—Forty-eight hours' (two days) free time will be allowed for loading or unloading all commodities.

“LOADING” includes the furnishing of forwarding directions on outbound cars.

“UNLOADING” includes the following requirements:

- (a) Surrender of bill of lading on shipments billed “to order.”
- (b) Payment of lawful freight charges when required prior to delivery of the car.
- (c) Furnishing of a “turn-over” order (an order for delivery to another party) after car has been placed for delivery and no additional movement of the car is made.

When the same car is both unloaded and reloaded, each transaction will be treated as independent of the other; except that, when loading is begun before unloading is completed, the free time for loading will not begin to run until the first 7 A.M. after unloading is completed.

But only twenty-four hours' (one day) free time will be allowed under the following conditions:

1. When cars are held for reconsignment, diversion or reshipment, or held in transit on order of consignor, consignee or owner.

When a car is placed for delivery at destination a “turn-over” which does not involve an additional movement of the car is not a reconsignment.

A “reshipment” is the making of a new contract by which, under a new rate, the original lading, without being unloaded, is forwarded in the same car to another destination.

2. When cars, destined for delivery to or for forwarding by a connecting line, are held under tariff regulations for surrender of bill of lading or payment of lawful freight charges.
3. When cars are held in transit and placed for inspection of grading. An exception is made on grain held in transit subject to Federal or State inspection at certain cities specifically named in the tariff.

COMPUTING DEMURRAGE TIME.—In computing time, Sundays and legal holidays, but not half-holidays, will be excluded. When a legal holiday falls on Sunday, the following Monday will be excluded. Rule 3 thoroughly explains how time shall be computed.

NOTIFICATION OF ARRIVAL OF FREIGHT.—Notice of arrival of freight shall be sent or given to the consignee within twenty-four hours after arrival of car, and such notice must contain car initials and number, point of shipment, contents and, if transferred in transit, the initials and number of original car.

When owner requests that original point of shipment be omitted on reconsigned cars, this information will not be shown on notice of arrival at destination.

When cars are ordered stopped in transit, notice shall be sent the consignee upon arrival of cars at point of stoppage.

Delivery of cars upon other-than-public delivery tracks, or a written notice sent to consignee of readiness to deliver, will constitute notification to consignee.

When any part of the contents of the car has been removed by consignee prior to sending notice, such removal shall be considered as a notice of arrival.

REFUSED AND UNCLAIMED CARLOAD FREIGHT.—When carload freight is refused at destination, notice of such refusal will, within twenty-four hours thereafter (ex-

clusive of Sundays and legal holidays) be sent by wire to consignor or owner.

When perishable freight is unclaimed and consignee or owner cannot be located, notice to that effect will be sent by wire to consignor or owner within three days (exclusive of Sundays and legal holidays), from the first 7 A.M. after the day on which notice of arrival was sent. This rule applies also to non-perishable carload freight, with the exception that the time intervening between the date notice of arrival is given and the sending of the wire will be five days.

PLACING CARS FOR UNLOADING.—When delivery of a car cannot be made to other-than-public delivery track or to an industrial interchange track (a track owned by an industrial plant performing switching service for itself) on account of inability of consignee to receive it, or because of other conditions attributable to him, the car will be held at destination or at the nearest available hold-point. A notice to that effect will be sent to the consignee, and this will be considered *constructive placement*.

When delivery cannot be made on specially designated public-delivery tracks, because such tracks are fully occupied or from other causes beyond the control of the carrier, delivery shall be made at the nearest available point to consignee, unless consignee indicates a preferred available point.

In the event consignee notified the railroad that he refuses to accept delivery at the point named in the notice sent in accordance with the next preceding paragraph, the car will be held awaiting opportunity to deliver at the specially designated track and Free Time will not begin until the first 7 A. M. after the day on which notice of placement is sent.

CARS FOR LOADING.—Cars will be considered placed when actually placed or held on orders of the consignor.

On empty cars placed for loading and not used, demurrage will be charged from actual or constructive placement until released, with no Free Time allowance.

DEMURRAGE CHARGES.—At the expiration of the free time allowed, demurrage charges per car per day, or fraction of a day, will be made until the car is released. For each of the first four days the demurrage charge is \$2.00 per day; and for each succeeding day the charge is \$5.00.

TRACK STORAGE.—At some terminals where railroad facilities are limited, in addition to the demurrage charge for cars placed on public-delivery tracks, there is a track storage charge, but this charge must be covered by a lawful tariff.

Section 2

Demurrage Claims

WHEN DEMURRAGE CHARGES ARE NOT ALLOWED.—No demurrage charges are to be collected when detention of car occurs through any of the causes named in the following paragraphs. Any charges assessed or collected under such conditions shall be promptly cancelled or refunded by the carrier.

1. **WEATHER INTERFERENCE.** When the condition of the weather during the prescribed free time is such as to make it impossible to employ men or teams in loading or unloading, or impossible to place freight in cars or move it from cars without serious injury to the freight, the free time is extended. This also applies to shipments frozen while in transit and to the inability of shippers or consignees to load or unload freight because of high water or snow-drifts. However, this rule does not absolve the consignor or the consignee from

liability for demurrage, if others similarly situated and under the same conditions reasonably could and did load or unload cars during the same period of time.

2. **BUNCHING.** (a) When, by reason of delay of carrier in filling orders, cars are placed for loading in numbers in excess of daily orders, the shipper is allowed such free time for *loading* as he would be entitled to had the cars been placed as ordered.

(b) When, due to the fault of any carrier, cars are accumulated and delivered by a railroad in numbers in excess of daily shipments, the consignee is allowed such free time for *unloading* as he would have been entitled to had the cars been delivered in accordance with the daily rate of shipment.

An illustration is as follows: A shipper in point A forwards to a consignee at point B five cars per day, and the consignee at point B can unload the five cars per day when placed for unloading. The consignee at B receives no cars for three days, but on the fourth day twenty cars are accumulated to be placed. No demurrage charge could be assessed against the consignee if he unloads his daily allotment of five cars, as the accumulation of the twenty cars would be what is termed "bunching."

3. **DEMAND OF OVERCHARGE.** If the agent of a carrier demands payment of transportation charges in excess of tariff authority, no demurrage can accrue during the period of adjustment.

4. **DELAYED OR IMPROPER NOTICE BY CARRIER.** If a Notice of Arrival is not properly given to consignee, no demurrage charge can be assessed, provided the fault is with the carrier. If a mail notice has been delayed, the postmark on the envelope shall be accepted as indicating the date of the notice. If a notice is mailed on Sunday, a legal holiday, or after 3 P. M. on other days

(as evidenced by the postmark thereon), the consignee is allowed five hours' additional free time, but he must mail or send to the carrier's agent, within the first twenty-four hours of free time, written advice as to the actual time notice was received. If he fails to take this action no additional free time is allowed.

5. **ERROR OF RAILROADS PREVENTING DELIVERY.** If the railroad has made an error in placing cars (i.e., placing recent arrivals ahead of previous arrivals or similar mistakes), demurrage may be assessed only on the basis of the amount that would have accrued except for such errors.

6. **DELAY BY UNITED STATES CUSTOMS.** When shipments are delayed by the United States Customs, such additional free time shall be allowed as has been lost through such delay. Goods entering the United States from foreign countries are, as a rule, dutiable and must go through the routine of being cleared through the Customs. Unless Customs entry is correctly made, delivery of the goods will be delayed until all errors and omissions are corrected. Freight of this nature is termed "Import" freight, and is frequently transported by railroads either to interior points or across the continent "in bond." The term "in bond" means that the goods are under the control and ownership of the United States, and remain so until cleared from Customs. For convenience of importers and to avoid congestion at seaports, the Government maintains custom-houses at many of the large interior cities. Cars transporting freight "in bond" are secured with Government seals which must be broken only by an authorized Government officer at destination. Delivery cannot be accomplished without the authorization of this Customs Official.

AVERAGE AGREEMENT.—Shippers and receivers frequently make an agreement with the carriers, whereby

the charge for detention of cars for loading or unloading shall be computed on the basis of the average time of detention during each calendar month. One credit is allowed for each car released within the first twenty-four hours of free time. After forty-eight hours' free time, one debit per car per day, or fraction of a day, will be charged for the first four days. Ninety-six hours' free time is allowed on cars subject to Rule 8, Section A, Paragraph 2 (see National Car Demurrage Rules of Red Book). When a car has accrued four debits, a charge of \$5.00 per day, or fraction of a day, will be made for all subsequent detention including all subsequent Sundays and holidays.

Credits earned on cars held for loading cannot be used as an offset for debits accruing on cars held for unloading, or vice versa.

If the credits exceed the debits no payment will be made by the railroad on account of such excess of credits, nor can the excess credits for one month be considered in computing the average detention for another month.

A party who enters an Average Agreement is not entitled to cancellation or refund of demurrage charges on account of weather interference, nor because of bunching unless such bunching is caused by strike of carrier's employees.

On written notice either party may terminate the agreement, which notice becomes effective on the first day of the month succeeding that in which it is given.

In his book, "Law and Theory of Railway Demurrage Charges," Harleigh H. Hartman, in discussing the Average Agreement, says:

"The agreement, if entered into, must be applicable to all cars subject to demurrage which are held for

loading or unloading. An agreement with respect to cars held for loading or only for unloading would not be proper. This requirement is necessary to guard against discrimination. And as the agreement applies to all cars released in each calendar month it should ordinarily be entered into as of the first day of the month. Under conditions where no cars were released during the early days of the month, the agreement might be entered into as of the first day on which cars were released.

The average agreement is based upon mutual gain and sacrifice by shipper and carrier. The shipper is thereby enabled to escape demurrage payments he would otherwise have to make by being permitted to use unexpired "free time" on cars promptly released to offset what would otherwise be demurrage time on cars held beyond their "free time" period. To secure this advantage he waives his rights to additional "free time" because of weather interference, bunching of cars, etc., and accepts the average. The carrier in return for the advantages granted the shipper secures the benefits of this waiver and in addition those resulting from its not being required to place cars for unloading in the order of their arrival, except as provided in Rule 8-E. This explains the necessity for the exceptions made in Section E of Rule 9.

Some shippers have questioned whether or not Rule 9, Section A, goes far enough in recognizing this mutuality because under it when a car is placed on Sunday, for example, unloaded that day and switched out on Monday only one credit can be allowed although there is an additional saving of car detention for which the shipper can derive no benefit. The reasonableness of this aspect of the rule has not been tested.

The Commission considers the average agreement as a concession, and apparently does not think that it has

authority to require its establishment as a reasonable rule or regulation.

The Commission has said that the computation of average detention should be made upon as fair and equitable basis as possible. Detention time should not include the day of placement when a car is placed so late in the day as to leave the consignee no reasonable opportunity of handling it on that day. And the computation should not include any time after release of the car by shipper."

Section 3

Storage Rules and Charges

DEFINITION OF STORAGE.—Storage is the charge assessed by carriers in accordance with the Freight Tariff governing Storage Rules and Charges and applies to freight, either carload or less-than-carload, unloaded at terminals and held after expiration of the Free Time limit. (*See "Storage" section of Red Book*).

FREIGHT SUBJECT TO STORAGE.—Freight received for delivery or held to complete a shipment, or for forwarding directions, if stored on railroad premises is subject to the following storage rules:

(a) Carload freight held in cars for delivery, and subsequently unloaded in or on railroad premises, is subject to demurrage rules while in cars and to storage rules after it is unloaded.

(b) Freight upon which the free time allowed under demurrage rules has expired while in cars, and subsequently unloaded in or on railroad premises, is subject to storage rules when unloaded, without free time allowance.

EXCEPTION.—These rules do not apply to export or import freight at the port of export or import; nor to

domestic freight from or intended for delivery to ocean or lake vessels at the port of trans-shipment.

NOTIFICATION OF ARRIVAL OF SHIPMENT.—Notice shall be sent consignee by the carrier, in writing or as otherwise agreed, within twenty-four hours (one day) after arrival of shipments. Such notice must specify point of shipment and name of commodity.

REFUSED OR UNCLAIMED FREIGHT.—Where shipments have been plainly marked with the consignor's name and address, preceded by the word "from," notice of refusal of less-than-carload shipments shall immediately be sent to consignor.

Unclaimed less-than-carload shipments will be treated as refused after fifteen calendar days from expiration of free time.

Where consignor requests that notice of unclaimed or refused shipments be sent by telegraph, this may be done only at his expense.

FREE TIME ALLOWED PRIOR TO STORAGE.—Forty-eight hours' (two days) free time will be allowed on all commodities for the removal of inbound freight from car or railroad premises, or to complete a shipment and furnish forwarding directions for outbound freight.

EXCEPTION.—Additional free time is given to consignees of L. C. L. shipments located at interior or at non-railroad points.

Outbound less-than-carload freight, not accompanied by proper shipping directions which will permit forwarding on the day received, will be subject to storage charges from the first 7 A. M. after receipt of the shipment with no free time allowance.

Shipments of less-than-carload freight held to complete a shipment, or held for reshipment, will be allowed twenty-four hours' free time.

COMPUTING TIME.—In computing time, Sundays and legal holidays will be excluded. Where a legal holiday falls on Sunday, the following Monday will be excluded. On inbound freight held for removal and on freight held for re-consignment or re-shipment, time will be computed from the first 7 A.M. after the day on which notice of arrival is sent or given to consignee.

CHARGES FOR STORAGE ON FREIGHT.—Freight held on railroad premises in excess of the free time allowed is subject to storage charges as follows:

(a) Freight, except automobiles or other self-propelling vehicles (but not excepting motorcycles or bicycle motor wheels), held in or on railroad premises in excess of free time allowed, will be subject to the following storage charges per day, or at option of carrier may be sent to public warehouses:

For each of the first five days, $1\frac{1}{2}$ cents per 100 lbs.; for the sixth and each succeeding day, 3 cents per 100 lbs.; minimum storage charge per shipment on freight held beyond free time, five (5) days or part thereof, 25 cents; six (6) days or more, 50 cents.

(b) After expiration of free time, automobiles or other self-propelling vehicles (except motorcycles and bicycle motor wheels) will be subject to a storage charge of three and one-half ($3\frac{1}{2}$) cents per 100 lbs. per day, with a minimum charge of \$1.00 per machine per day for each of the first five (5) days, and \$2.00 per machine for each succeeding day, or at option of carrier may be sent to public warehouses.

(c) (1) When carload freight is unloaded by the carrier for the purpose of releasing needed equipment, the storage charge will be the same as would have accrued under car Demurrage and Track Storage Rules had the freight remained in the car.

(2) When carload freight is unloaded in or on railroad premises by or upon request of consignee or consignor, the storage charges shall not exceed the amount that would have accrued under Demurrage and Track Storage Rules had the freight remained in the car.

CLAIMS FOR STORAGE CHARGES.—The same rules governing causes for non-collection of demurrage charges are applicable to storage charges. (*See Claims in "Storage" section of Red Book*).

Section 4 Export Freight

THROUGH EXPORT BILLS OF LADING.—Through export bills of lading (*See Form No. 25 of Red Book*) on carload traffic in connection with Agreement Lines (Steamship lines which have entered into an agreement with the railroads and United States Shipping Board) will be issued only when founded on written ocean contract and on traffic moving under railroad transportation permit. (*See "Foreign Commerce Orders of I. C. C." section of Red Book*).

(1) Carload freight covered by through export bills of lading issued in connection with these lines will generally be held in warehouse, or, at option of carriers, in cars free of charge at the port of exit for a period of not exceeding fifteen (15) days, exclusive of day of arrival; thereafter, storage charges, as per tariffs lawfully on file with the Interstate Commerce Commission, will apply.

NOTE.—These storage charges generally are as follows:

| <i>For Periods of Five (5) Days</i> | <i>Cents Per 100 Pounds for each Five (5) Days or Fraction Thereof</i> |
|---|--|
| First six (6) periods beyond the period of free storage (including handling in and out) | 1 |
| Next six (6) periods | 1½ |
| Succeeding periods | 2 |

(2) In the event of a failure of the steamship company to clear freight on any vessel, or during any period for which specifically booked, or to order freight within the 15 days time, all storage charges accruing after the period of free time shall be paid by the steamship company.

(3) When rail carriers deliver freight at port more than 15 days in advance of the date for which the freight is booked, such excess time shall be considered as additional free time.

(4) If the rail carriers fail to transport shipments to the port in time to clear on steamer, or to clear during the period for which specifically booked, storage charges will not apply until the announced date of the steamer on which it is again booked, after which date storage charges will apply as set forth in Paragraph 2.

(5) Storage charges will cease to apply on and after receipt by the railroad from steamship company of order for delivery, provided steamer for which shipment is intended is ready to accept cargo.

EXPORT FREIGHT VIA NON-AGREEMENT LINES.—On export carload freight moving in connection with steamship lines not included in the agreement previously referred to, through export bills of lading will be issued only when founded on written ocean contract and on traffic moving under railroad transportation permit, and then only when shipper gives written guarantee that any storage charges accruing at the seaboard will be paid.

Otherwise, the same provisions apply generally to these lines as to those included in the Agreement, with the exception that freight will be held free of charge for a period not exceeding 10 *days* instead of 15 days.

ADDITIONAL STORAGE RULES.—Freight in carloads (not covered by through export bills of lading) which

is entitled to free lighterage, consigned in bill of lading for export, will be held free of charge, in warehouses or, at option of carriers, in cars at points specified in tariffs, for a period of 10 days exclusive of date of arrival; thereafter, storage charges, as shown in Paragraph 1, will be applied.

Export freight, both carload and less-than-carload, shipped direct to stations in New York City and Brooklyn will not be placed in public warehouses until 5 days after arrival, day of arrival, Sundays and legal holidays not included. During this period, if delivered to a truckman who presents a *bona fide* vessel permit (*See Form No. 32 of Red Book*) for exportation of the property, no storage charges will be assessed, but if taken for local delivery after the expiration of two days, storage or car demurrage and track storage rules and charges, applicable on domestic freight, will apply.

During normal times export freight via the important ports moves in great volume. Inland shippers generally allow considerably more time for the transportation of export freight than the usual time for movement of domestic freight. Consequently it is a common occurrence for export shipments to arrive at the port of exit a number of days in advance of the sailing of the steamer for which it was destined, frequently exceeding the free storage period. In cases of this kind the export representative has to arrange for the storage of the property in some public warehouse, or the railroads will store the goods in one of their selected warehouses at the expense and risk of owner. When freight is placed in a public warehouse, either by the railroad or the export representative, there is an expense of cartage from the railroad station to the warehouse, and the warehouse charges are usually assessed for a full month, regardless of whether the shipment remains there one day or the full period. The total

of this expense is in addition to the regular terminal cost of handling, provided the consignment could have been removed from the railroad premises within the free storage limit. When the steamer is ready to receive, delivery of freight must be made in the usual way and at the regular charge.

At a large export port it is frequently necessary to incur expenses of this nature, but it affords a great opportunity for exploitation of the inland shippers, hence it is very essential that shippers should have competent and reliable representatives at the ports of export, as well as a man in charge of their home traffic department who is versed in export traffic procedure.

Chapter XVI

LIGHTERAGE AND SWITCHING

COLLATERAL READING: In the Freight Traffic Red Book—
Lighterage and Switching.

Section 1

DEFINITION OF LIGHTERAGE.—In the large ports of the United States, such as New York, Boston, etc., freight is delivered to vessels or other points by boats called lighters, barges, and carfloats. This service is called Lighterage.

THE MEANS OF LIGHTERAGE.—(a) There are two kinds of lighters; viz., steam lighters (meaning those that are self-propelled) and lighters that are towed by tugs.

(b) Barges are usually covered with sides, ends and roofs to protect lading from the elements, and are towed by tugs.

(c) Carfloats are large flat-bottom boats having tracks laid upon them so that, when they put in at the float bridges, which are also equipped with tracks and which connect with both the tracks on the float and the railroad tracks, cars are run directly thereon or removed in like manner.

FREE LIGHTERAGE.—Within certain limits, all commodities (other than prohibited articles which are specified in the tariff (*shown in "Lighterage" section of Red Book*)) are entitled to LIGHTERAGE FREE delivery, when received in carload lots. The term, "lighterage free," means that the rates to or from the harbor city, on articles entitled to free lighterage, will include transportation by lighters, barges, or carfloats,

to or from any pier or vessel or public landing within the lighterage free limits. (*See Map of Lighterage Limits, page 187.*) When freight is lightered to points beyond the free delivery limits, a charge is made for the service. The term, "lighterage limits," means the area of the harbor within which lighterage service will be performed by carriers under the rules and regulations contained in tariffs on file with the Interstate Commerce Commission.

Lighterage or floatage to or from private piers, bulkheads or landing places (when accessible by floatage equipment) will be performed by the carriers if shippers or consignees so arrange.

When rate does not include free lighterage, an additional charge for lighterage is made in accordance with the rules of the specific tariff.

COMPLEX CONDITIONS OF NEW YORK HARBOR.—The conditions surrounding New York City are quite complex and difficult to comprehend, especially by shippers at interior points. The free lighterage privilege accorded to both carload domestic and export freight does not appear to be understood by many of these shippers, as is evidenced by their failure to specify in bills of lading for domestic carload freight the pier or landing at which delivery is desired, or to insert the notation "Lighterage Free" in bills of lading for export carload freight. Through these omissions, a large amount of additional charges has been incurred.

When the notation "Lighterage Free" is omitted from bills of lading covering export carload freight, it often occurs that cars are forwarded direct to stations in New York City, from whence they have to be trucked or lightered to steamship piers, many of which are located in Brooklyn, Hoboken, and on Staten Island. Delivery to these piers by trucks necessitates an extra expense for ferriage in addition to the cartage charge.

CHARGES WHEN RATE DOES NOT INCLUDE LIGHTERAGE FREE.—When the rate does not include Lighterage Free the additional charge for lighterage of freight in carloads will be computed upon the actual weights of shipments, but not less than the minimum carload weights, at 6 cents per 100 pounds, minimum charge \$11.50, subject to extra charges for articles exceeding three tons each in weight.

DELIVERY ORDERS.—Delivery orders and vessel permits, limiting the time for delivery, will be accepted by carriers only with the understanding that delivery will be accomplished with reasonable dispatch.

WHARFAGE.—Any wharfage charge, or charge for berthing of lighters, must be paid by shippers or consignees, who must also provide berthing. A wharfage charge is usually assessed when lighters dock at private bulkheads or private piers; also a further charge, called "top wharfage," is frequently made for the privilege of loading and unloading material on a private bulkhead or pier. When lighters land at public bulkheads or piers no wharfage charge is assessed.

Commodities for Which No Carload Weight or Rate Is Provided in the Official Classification. Commodities (other than prohibited articles) for which no carload rate or weight is provided in the Official Classification will be accorded free lighterage privilege, when loaded to the full stowing capacity of car or when the billed weight of the shipment is 30,000 lbs. or more.

Free lighterage is also extended to some other commodities when billed at a weight of 20,000 lbs.

Except as provided above, a charge in addition to the rate will be made for each delivery of domestic or export freight.

LESS-THAN-CARLOAD SHIPMENTS RECEIVED WITH CARLOAD SHIPMENTS.—Less-than-carload shipments of out-



THE PORT OF NEW YORK; SHOWING LIGHTERAGE LIMITS

bound freight (which is lighterage free in carloads) received with a carload or more of lighterage free freight from the same shipper at the same time will be subject to a charge per 100 lbs., in addition to the rate. Less-than-carload shipments of inbound freight (which is lighterage free in carloads) received in the same car with a carload or more of lighterage free freight to the same consignee will be accorded free lighterage.

LIGHTERAGE OF LESS CARLOAD FREIGHT.—Commodities, in less than carload quantities, which when in carload quantities are entitled to lighterage free, may be moved by lighter, within lighterage limits, subject to extra charges for articles exceeding 3 tons each in weight, for a charge of 3½ cents per 100 pounds, with a minimum of \$11.50 for each domestic shipment and a charge of 3½ cents per 100 pounds, with a minimum of \$7.56 for each export or import shipment, over and above the rate applicable to and from rail termini.

MINIMUM CHARGE ON LESS-THAN-CARLOAD FREIGHT.—In the event that the freight charges on less-than-carload shipment of commodities (which when shipped in carload quantities are entitled to lighterage free), plus the minimum lighterage charge of \$11.50 on domestic freight and \$7.56 on export or import freight, aggregate more than the freight charges computed on minimum carload weight, the shipment shall have the benefit of the minimum carload freight charge and lighterage free.

PART OF A CARLOAD FOR EXPORT DELIVERED FOR DOMESTIC CONSUMPTION.—If a portion of a carload for export is delivered for domestic consumption, the entire carload will be charged at the domestic carload rate and minimum carload weight (actual weight if in excess) not exceeding a charge based upon the export carload rate, if any, and minimum carload weight (ac-

tual weight if in excess) on the portion exported plus the charge at the domestic less than carload rate, plus lighterage on the portion delivered for domestic consumption.

INBOUND FREIGHT REQUIRING MORE THAN ONE LIGHTERAGE DELIVERY.—On carload inbound “Lighterage Free” freight, one free domestic lighterage delivery, or one free station delivery, will be made of each carload on which charges are assessed at the carload rate in such quantity as consignee may direct. Any additional delivery will be charged for at the prevailing rate, except that no delivery other than one free delivery will be made of carloads of lumber. When two or more carloads are loaded in one car, this rule will apply to each one of the carloads.

On carload inbound “Lighterage Free” freight for export, two free lighterage deliveries will be made of each carload on which charges are assessed at the carload rate in such quantity as the consignee may direct. Any additional delivery will be charged for at the prevailing rate, except that no delivery other than one free delivery will be made of carloads of lumber. When two or more carloads are loaded in one car, this rule will apply to each one of the carloads.

LIGHTERAGE RATES ON HEAVY ARTICLES.—Articles weighing up to three tons each are usually lighterage free. On articles weighing over three tons each there is a charge for lighterage, said charge being increased in accordance with the increased weight of the articles. For the purpose of lightering these heavy articles, special equipment is required. Usually “outside” lighters (not owned by the carrier) are employed for this service.

DEMURRAGE CHARGES ON LIGHTERS.—When a lighter reports at its destination, shipper, consignee, or owner of the freight, as the case may be, must provide a berth,

and 48 hours from the time lighter reports, Sundays and legal holidays excepted, shall be deemed lay days without charge, after which demurrage shall accrue at a rate per day of 24 hours or fraction thereof, as specified in a tariff, Sundays and holidays included. The demurrage charge on lighters transporting ordinary commodities, in New York Harbor, is \$20 per day. For lighters transporting heavy articles, the charge for demurrage varies and is based on the weight of the commodity conveyed.

When a lighter contains more than 200 tons of freight for one shipper or consignee, an additional 24 hours free time will be allowed for each 100 tons or fraction thereof in excess of 200 tons.

Section 2

Regulations Governing Switching

DEFINITION OF SWITCHING.—Switching is the service performed in moving cars from one track to another, in what is termed “switching limits.” This service is divided into three classes as follows:

Terminal Switching,
Intermediate Switching,
Intra-Terminal Switching.

TERMINAL SWITCHING.—Terminal Switching is the service performed by a railroad in receiving on its tracks, from a connecting line, a loaded car and placing it at a designated delivery point for the purpose of unloading.

It also is the service performed by a railroad in hauling a loaded car from a point on its own road, or on private tracks connecting therewith, and delivering it to a connecting line, when said car is destined to a point beyond the switching limits.

The entire service thus performed, in each of the above instances, must be within the designated limits and on a switching charge published in a tariff.

INTERMEDIATE SWITCHING.—Intermediate switching is the service performed by a road in handling a car from one railroad to another, the service performed being within the designated limits and on a switching charge published in a tariff.

This service is performed at the junctions of the various railroads, where cars are en route and turned over to the connecting line for transportation to destination.

INTRA - TERMINAL SWITCHING. — Intra - Terminal switching is the switching movement from one place to another on the same railroad within the switching limits of one terminal. That is, a car is loaded within the switching limits and hauled to another point for unloading within the same switching limits.

SWITCHING LIMITS.—The area of a terminal, within which switching service is performed under switching rules and regulations, is called “switching limits.”

WHEN CHARGES AND RULES APPLY.—Freight received at a point within switching limits of a station and delivered to another point within switching limits of the same station is subject to terminal switching charges, as provided in the tariffs applicable.

Switching charges are assessed on the basis of a certain rate per car, as specified in a tariff, and are added to the freight charges, unless the rate includes the switching service.

LESS-THAN-CARLOAD FREIGHT.—Frequently carriers will handle less-than-carload shipments, in switching service, when loaded in the same car; the aggregate

weights of the shipments being not less than a specified weight, usually about 10,000 pounds.

ABSORPTION OF CHARGES.—The act of carriers in including in their rate, from starting point to point of delivery at destination, charges that may have been assessed against the freight for switching service during its transportation, is termed "Absorption of Switching Charges." This action is usually taken by carriers in handling traffic between competitive points, where industries are located on the tracks of competitors.

Railroads operating between competitive points are always contending for desirable traffic and in order to obtain their share of such traffic they must at least offer equal rates and service. A line desiring to handle the shipping of an industry having a siding on the tracks of a competitor, at a competitive point, must pay the competing line's switching charge in order to equalize the rates and thus obtain a portion of the traffic.

At terminals reached by two or more railroads, cars are often loaded at private sidings on the tracks of one railroad, and switched to another carrier to be forwarded to destination. The carrier performing the transportation service in this instance will usually absorb the switching charge.

At destination, the industry to which freight is consigned may be located on a private siding, connected with the track of a competitor, and in order to accomplish delivery, it would be necessary to have the car switched to the competing line. In this instance, the charge for switching would undoubtedly be absorbed by the carrier having the line haul. If the freight were transported by the railway with which the siding is connected, there would be no charge for switching.

In both of the cases mentioned, the railroad having the line haul generally absorbs the switching charge in its transportation rate.

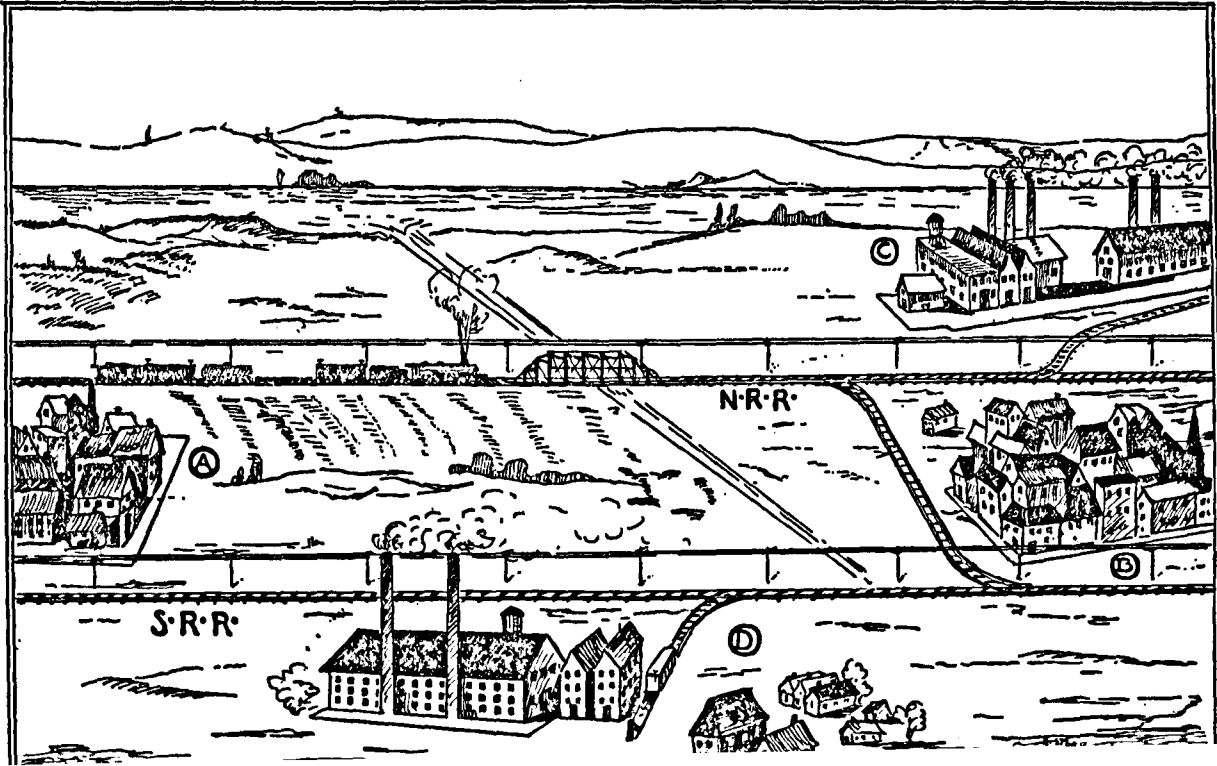
The illustration on page 194 will demonstrate the reason for absorption of switching charges: A and B are competitive points reached by the Southern Railroad and the Northern Railroad. At point B industry C is located on a private siding connected with the tracks of the Northern Railroad and in order that the Southern Railroad may handle any traffic from point A for industry C, it must absorb in its rate the Northern Railroad's switching charges. Also, if it is desired to handle any of the shipping of industry C forwarded to point A, the Southern Railroad would have to absorb in its rate the Northern Railroad's switching charges.

If shippers at either point A or B desire to ship to industry D, located on a private siding connected with the tracks of the Southern Railroad, switching charges would not be absorbed as there would be no competition for this traffic.

The practice of a carrier in absorbing the switching charges of another carrier is of great advantage to shippers. For instance, two routes thus become available at the same rates and many shippers at point A may be located nearer the terminal of the Southern Railroad who would find it far more convenient to deliver their shipments to this terminal. Also, the expenses incident to shipping (cartage, etc.) would be less.

On the other hand, the railroads, by this means of evening rates, are enabled to obtain tonnage which they would not otherwise transport.

Hence absorption of switching charges is of mutual benefit to both shippers and carriers.



Chapter XVII

DIVERSION AND RECONSIGNMENT TRANSIT PRIVILEGES

COLLATERAL READING: In the Freight Traffic Red Book—
Diversion and Reconsignment; Transit Privileges.

Section 1

Benefits and Requisites of Diversion

AN ACCOMMODATION TO THE SHIPPER.—Freight in carloads may be diverted or reconsigned on carrier's lines, subject to tariff rules, regulations, and charges. When a request is made for diversion or reconsignment, the carrier will make diligent effort to locate the shipment and effect the diversion. The carrier will not, however, be responsible for failure to comply with a request, unless such failure is due to the negligence of its employes. This privilege is accorded to shippers simply for the purpose of accommodation.

BENEFIT TO BE DERIVED.—Diversion and reconsignment are essential to many industries, particularly those which ship perishable freight, such as fruit and vegetables. Bananas are imported in steamers; floats containing empty cars are placed alongside; the bananas are loaded into the cars, which are immediately started for some city where there is supposed to be a good market. Before the cars reach their destination, it may develop that some other city would offer a better market; then the shippers resort to the privilege of diversion and the cars are sent to the more favorable market. Other commodities are also similarly handled in accordance with tariff provisions.

The material benefit derived from the diversion and reconsignment privilege is the saving in transportation

costs. The following illustration sets forth one of the important advantages obtained by exercise of this privilege:

A shipper, located at point B, may have customers located at point C, and the plant where goods are manufactured is located at point A. The shipper, or seller, of the article does not desire that the manufacturer should know the names of his customers or the points where they are established. So he has shipments consigned to him at point B, where he arranges to reassign them to point C, surrendering the original bill of lading in exchange for another bill of lading, wherein he appears as the shipper and his customer as the consignee.

Now we will assume that the through rate from A to C is \$2.00 per 100 pounds and that this rate is applicable via point B, but the rate from A to B is 75 cents per 100 pounds and the rate from B to C is \$1.50 per 100 pounds. Hence, by availing himself of the diversion privilege, he obtains the benefit of the through rate of \$2.00 applying from A to C and thus saves 25 cents per 100 pounds less the charge for diversion, approximately \$2.70.

DEFINING THE TERMS.—While diversion and reassignment may be strictly interpreted to mean separate acts, generally the tariffs of carriers make no distinction in their diversion and reassignment rules, for they give the words the same meaning.

According to the carriers' definitions the term "diversion" or "reassignment" means:

- (a) A change in the name of the consignee,
- (b) A change in the name of the consignor,
- (c) A change in destination,

(d) A change in route at the request of consignor, consignee, or owner,

(e) Any other instructions given by consignor, consignee, or owner necessary to effect delivery, which requires a change in billing or an additional movement of the car, or both.

HOW REQUESTS FOR DIVERSION ARE MADE.—A request for diversion or reconsignment should be filed with the agent at the point from which the shipment was forwarded, or with a traffic executive of the transportation line having the shipment in its possession. If the shipment has reached its destination, the request may be filed with the agent there.

The request for diversion or reconsignment should contain complete information and specific instructions as to the action desired, and be supported by the original bill of lading or other proof of ownership.

PROMPT ACTION NECESSARY.—The shipper should be thoroughly familiar with the carrier's tariffs and regulations governing diversion or reconsignment. In order that the services may be performed by the carriers without a heavy expense to the shipper, prompt action on his part is necessary, especially in cases of change of destination to one nearer the point from which the shipment was forwarded.

CONDITIONS ON WHICH DIVERSION IS MADE.—The services are usually subject to the following conditions:

(a) That shipments have not broken bulk.

(b) That shipments cannot be diverted or reconsigned to a point against which an embargo is in force. Shipments made under authorized permits are not subject to this condition.

(c) On "Straight" consignments, the original bill of lading should be surrendered temporarily for the purpose of having notation made thereon as to diversion or reconsignment or other proof of ownership established. On shipments consigned "to order," the original bill of lading should be presented for endorsement of the requested diversion, or a satisfactory bond of indemnity must be executed in lieu thereof.

(d) Requests must be made or confirmed in writing.

(e) All charges accruing must be prepaid or guaranteed, to the satisfaction of the carrier, by the party requesting the diversion.

Section 2

The Expense of Diversion and Reconsignment

CHARGES FOR RECONSIGNMENT.—A reconsignment entails an expense on the carrier, so that usually a charge is made for the service. However, the rules of carriers may provide for this service without charge to the shipper or at a rate consistent with the service performed.

WHEN CHARGE WILL NOT BE MADE.—The carriers usually do not charge for a single diversion under the following circumstances:

1. When the order is received at initial billing point before the car leaves, provided the change involves no extra movement of the car.

2. When a car is placed for delivery at destination, and an order for delivery of the contents thereof to other than the billed consignee is presented to and accepted by the agent of the carrier at destination; no

change being involved in billing records, nor additional movement of car.

3. When a change in route is made necessary by an embargo.

FREIGHT RATE APPLICABLE.—Diversion rules and charges generally apply whether shipments are handled at local rates, joint rates, or combination of intermediate rates. The through rate, from the point of origin over the route of movement via the diversion point to final destination, in effect on date of shipment, is the rate that will be applied.

If the rate from point of shipment to final destination is not applicable over the route of movement through the point at which the car is diverted, the tariff rates in effect on date of shipment from point of origin to and from the diversion point will apply, plus diversion charges.

The illustration, shown on page 194, demonstrates the application of this rule when the through rate applies via the point of diversion. But, if the through rate did not apply via point B and shipments were forwarded via that point, the combination rate of \$2.25 would be assessed, plus the diversion charge.

In the latter contingency, no saving would be effected by routing via point B, yet, the seller would be enabled by this diversion privilege to accomplish his main object; namely, concealment of the names of the manufacturer and buyer.

DEMURRAGE ON RECONSIGNMENTS.—Freight stopped, diverted, or reforwarded will, in addition to the diversion charge, be subject to demurrage and track storage charges in accordance with the tariff in effect at point where this stopping, diversion, or reforwarding is accomplished. Switching charges also will be additional.

ONE CHANGE IN DESTINATION PERMISSIBLE.—Usually only one change in destination of a car will be permitted by the carrier, after it leaves the initial billing point. If a subsequent change is requested, necessitating movement of the car, the consignment will be treated as a re-shipment from point of re-forwarding, and will be charged at the tariff rate therefrom, plus diversion charge.

If a car is stopped short of billed destination after it has had one diversion, charges will be made on the basis of the tariff rates to and from the point at which the first diversion was accomplished, plus a specified charge, in addition to the other diversion charges previously accrued.

DIVERSION BEYOND RAILS OF CARRIER.—When diversion is requested after shipment has passed out of the possession of the initial carrier, or when a request is received too late for the initial carrier to effect the change desired, such request will be transmitted to the direct connecting carrier to which shipment was delivered. The responsibility of the initial carrier will then end, and the shipment will be subject to the tariff rules of the carrier on whose rails the diversion is accomplished.

CHARGES FOR STOPPING IN TRANSIT.—If a car is stopped for orders, on request of the owner, for the purpose of delivery, diversion, or re-forwarding prior to arrival at original billed destination, the tariff charge will be made for such service and the point where the car is stopped will be considered the destination of the freight.

CHANGE OF DESTINATION ON ORDERS GIVEN BEFORE ARRIVAL.—If orders for diversion are placed with local freight agent at billed destination in time to permit instructions being given to yard employes prior to arrival, a nominal charge will be made for such service.

DIVERSION TO POINTS OUTSIDE SWITCHING LIMITS BEFORE PLACEMENT.—If a car is diverted or re-forwarded on orders placed with local freight agent after arrival of car at original destination, but before placement for unloading, the regular tariff diversion charge will be made if car is diverted or re-forwarded to a point outside of the switching limits.

DIVERSION TO POINTS WITHIN SWITCHING LIMITS BEFORE PLACEMENT.—A single change in the name of consignor or consignee, or a single change in the designation of the place of delivery at destination will be allowed:

(a) Without charge if order is received by local freight agent at destination in time to permit instructions to be given to yard employes prior to arrival of car at destination.

(b) At a nominal charge if such order is received in time to permit instructions to be given yard employes between arrival of car at destination and the expiration of twenty-four hours after the first 7 A. M. after the day on which notice of arrival is sent to consignee.

(c) At the regular tariff charge if after arrival at destination such order is not received in time to permit instructions to be given to yard employes prior to the expiration of time as stated in paragraph (b).

DIVERSION TO POINTS OUTSIDE SWITCHING LIMITS AFTER PLACEMENT.—After a car has been placed for unloading at original destination and is re-forwarded therefrom without being unloaded to a point outside of the switching limits, it will be subject to the published rates to and from the point of reconsignment, plus the tariff reconsignment charge, except that in no case shall the total charge be less than the charge based on a through rate from point of origin to final destination plus the tariff reconsignment charge.

Where all charges have been paid to original destination and delivery accepted, and a new bill of lading (not an Exchange bill of lading) issued to the new destination on the basis of local rate from the re-forwarding point, and without any carrier or agent of the carrier acting for the shipper, the transaction will not be considered as a diversion and no diversion charge will be assessed.

DIVERSION TO POINTS WITHIN SWITCHING LIMITS AFTER PLACEMENT.—Cars that have been placed for unloading and which are subsequently re-forwarded without being unloaded to a point within the switching limits of a billed destination, will not be subject to a diversion charge, but will be subject to the rate or charge for local movement in addition to the rate from point of origin to billed destination.

“ORDER-NOTIFY” SHIPMENTS HELD FOR SURRENDER OF BILL OF LADING AT DESTINATION.—Except on cars consigned to or ordered for delivery on public delivery tracks, shipments covered by “order” bills of lading placed on hold tracks and held only for surrender of bill of lading and necessitating subsequent movement of the car to place of delivery, will be subject to the following:

(a) No charge will be made if bill of lading is surrendered to local freight agent at destination or indemnity bond executed in lieu thereof, or other satisfactory assurance given carrier in time to permit instructions to move the car to be given to yard employes prior to the expiration of twenty-four hours after the first 7 A. M. after the day on which notice of arrival is sent to consignee.

An indemnity bond or other satisfactory assurance in lieu of the original bill of lading covering an “order” shipment will not be accepted except upon certification by the claimant of the shipment that the original bill

of lading is not available; and where bond is executed a condition of the same shall be that the bill of lading will be obtained and surrendered immediately upon receipt of advice of the party executing the same that the bill of lading is available.

(b) Regular tariff diversion charge per car will be made if bill of lading is not surrendered to local freight agent or indemnity bond executed in lieu thereof in time to permit instructions to remove the car to be given yard employes prior to the expiration of the time specified in paragraph (a).

DIVERSION IN TRANSIT.—As the term implies, Diversion in Transit means a diversion or reconsignment between the original point of shipment and the final destination as originally waybilled. Frequently rules of carriers provide for a privilege of this kind, even after arrival at a terminal served by a terminal yard, prior to the time when car is placed for delivery at the original billed destination. A nominal charge per car is usually made for this service.

CHARGE FOR TRANSFERS.—When the destination or route is changed, for specific reasons, and the car containing the shipment is forwarded to the new destination or via a new route and it is necessary to transfer the shipment to another car, charge for such transfer is usually assessed against the shipper.

Section 3

Transit Privileges

DEFINITION.—Transit Privileges may be defined as permits granted to shippers to forward products to certain points for fabrication or undergoing some com-

mercial process which completes its manufacture or the market requirements.

PRINCIPLES OF PRIVILEGE.—Factories are not often located at the source of their raw material nor at the market absorbing their output, but they are generally established at points easy of access to both producers and consumers. It would not be practicable to erect a flour mill on each farm producing grain, so mills are located at places well served with transportation facilities for the distribution of the finished product.

The thesis "Transit Privileges," in the Freight Traffic Red Book, contains illustrations demonstrating the benefit shippers obtain through exercise of these privileges. This article should be carefully studied in order that a comprehensive understanding of these privileges, so valuable to many industries, may be acquired.

The fundamental principle is that the same commodity which moves into the transit point shall be re-shipped therefrom after it has undergone some change in form. The economic benefit of this privilege is that shippers are generally favored with the application of the through rate from point of origin to final destination plus a transit charge instead of the local rates to and from the transit point being charged, which, of course, reduces the transportation costs.

REASONS FOR GRANTING TRANSIT PRIVILEGES.—There are several reasons for granting transit privileges, but usually they are accorded on account of competition; although, often they are necessary to permit free movement of traffic. Transit privileges, however, are not extended whenever application is made therefor, but, as a rule, are granted only when competition can be met in no other way, or there must be actual necessity for some reduction in the regular tariff rates.

The Commission has indicated that it does not approve of extending transit privileges and has taken the position that its policy should be to curtail them to as great a degree as may be consistent with the industrial development of the country owing to the fact that investigations have shown they are the source and aggravating cause of the most serious complaints.

CHARGES.—The charges assessed for transit privileges are published in special service tariffs, but they vary, depending on where the service is rendered and the expense incurred in performing the service.

FURTHER TRANSIT PRIVILEGES.—Transit privileges are also granted for other purposes, such as Concentration, which permits the shipment of certain commodities to a concentration point and reshipment to points of consumption under rates substantially lower than the full combination of rates to and from the concentration point; Feeding, Grazing and Watering of Live Stock in transit so that they may be properly conditioned for market; and Storage in transit, which privilege is accorded to practically every commodity.

Chapter XVIII

FOREIGN COMMERCE

NOTE.—*The authority for considerable of the information embodied in the chapters treating of Foreign Commerce is the Exporters' Encyclopædia. The utilization of this material is by courtesy of the publishers, Thomas Ashwell & Company, Inc.*

COLLATERAL READING: In the Freight Traffic Red Book—Export Traffic; Import Traffic; Foreign Trade Definitions and Recommendations; Drawbacks and Marine Insurance.

DEFINITION.—Ocean transportation of traffic is the business which places our goods in the foreign markets and puts them to work in the factories and agricultural fields of the world, as well as that which brings to our country from all sections of the earth the products of their industries, in their raw or finished state, and places them in our factories, cities and homes. The majority of our exports consist of necessities, while on the other hand, our imports are largely composed of luxuries.

WHAT WE HAVE EXPORTED AND IMPORTED.—Figures for 1929, giving export values of goods shipped from the United States to foreign countries, show that although shipments were greatly below 1920 they exceed \$5,000,000,000 in value. The value of the goods imported was also far below 1920, yet in 1929 they aggregated a little less than \$5,000,000,000 in value.

PRINCIPAL PORTS OF THE UNITED STATES.—The principal ports of the United States, from which goods are exported and into which imports come, are as follows: Baltimore, Md.; Boston, Mass.; Galveston, Tex.; Jacksonville, Fla.; Los Angeles, Cal.; Mobile, Ala.; New Orleans, La.; New York, N. Y.; Philadelphia, Pa.; Portland, Ore.; San Francisco, Cal.; Savannah, Ga.; Seattle, Wash.; Norfolk, Va. and Houston, Tex.

The port of New York is the foremost and largest port of our country. About one-third of our total exports are forwarded through that port and via this gateway are shipped the greatest variety of commodities to the largest number of the world's markets.

Galveston is the largest cotton port, more cotton being exported from that port than any other port in the world, but in volume of tonnage, Philadelphia ranks second to New York.

Due to the Great War, opportunity was afforded to introduce many new articles into old markets and of developing an enormous trade with a large number of new markets. The United States at present not only leads the world in production and manufacture, but its foreign trade is also unquestionably bound to continue to expand.

NEED FOR EXPORT AND IMPORT TRAFFIC MEN.—The foregoing figures demonstrate plainly the enormous volume of business handled in ocean transportation. Before you now lies this large and fertile field of opportunity. The demand of merchants for trained export traffic men will increase each year, because few men are capable of handling the intricate problems arising in export trade.

Those problems are intricate because export traffic is handled in many different ways; in fact, there are rarely two shipments entirely alike—each one stands on its own merits and has to be handled accordingly. There are no two countries in the world to which the same regulations apply. In many countries the laws are constantly changing and the consular regulations are very strict; consequently it requires a very alert and capable man to keep his company out of trouble, as heavy fines are imposed by the officials of those countries on shipments which have been handled incorrectly.

The Science of Traffic has followed the development of National and State traffic regulations. Government regulation of ocean traffic, however, has not yet been developed. As a result, there is very little text and instruction material available which deals scientifically with the rules and practices of export traffic. Consequently, the successful export man will find it necessary to be especially resourceful and diplomatic in his personal contacts; and, in the second place, he will be forced to depend upon practical experience for the more intricate principles and methods of successful export traffic procedure. It is like learning to swim. There is no better way to learn than to go into the water.

The method of handling export traffic is very complex, and ability to handle it correctly can be developed only by actual experience. One may acquire this experience through employment with a large export house, a foreign forwarding company, or a custom house broker; but it will require time and patience and persistence for the employe to gain broad knowledge of export traffic if he depends upon getting that knowledge solely from his job.

In all industries, employes are usually assigned to certain duties or positions and rarely are they afforded an opportunity to acquire more than scant knowledge concerning the duties of their fellow employes. For this reason advancement is slow. Unless a man has an inquisitive mind, together with initiative and perseverance sufficient to acquire a knowledge of other positions, he frequently remains at the same old job, discouraged and with ambition lost. Especially is this true in the transportation business.

VALUE OF TRAINED EXPORT MEN TO INLAND SHIPPERS.—Owing to lack of knowledge of export requirements, particularly proper packing of shipments, and relying upon forwarding agents or brokers at seaports,

inland shippers are often subject to large additional charges and exploitation. It is a common occurrence for shipments from inland points to arrive at a large seaport, improperly packed or in containers which do not comply with the requirements for transportation by ocean steamers. Due to this fact, it is necessary to repack, recrate, or rebox many shipments at a very great expense, and frequently, on account of the necessity for this repacking, etc., the shipments miss the steamers for which they were intended and have to be stored in warehouses, to await booking on other steamers sailing to the ports for which the freight is destined, thus incurring considerable additional expense. Sometimes these charges have amounted to almost as much as the value of the goods.

There are many ways of incurring legitimate, but unnecessary, charges against goods for export, which the traffic manager of an inland shipper through adequate knowledge of export methods may avoid.

Any shipper, wherever located, who is to any considerable extent engaged in the export business, should employ in his traffic department a trained export man, or the traffic manager of the concern should be well versed in both domestic and export traffic. The economy effected in the handling of shipments would prove the investment to be profitable.

THE EXPORT TRAFFIC DEPARTMENT.—The size of a traffic department and the completeness of its organization depend upon the character and volume of the business. If it is desirable to enlarge a domestic traffic department for the purpose of handling export and import traffic, similar factors must be considered; but the size and importance of the foreign branch depends entirely upon the requirements.

If the volume of business is small, one trained traffic man, who thoroughly understands his business, will

be able to manage the department. There are very few of these men available for the reason that such a man must have railroad, steamship, and custom house experience before he is able to perform the numerous details. Such a man, if capable, is the only executive a traffic department requires, so far as the organization is concerned, as he will work out the details to the best advantage.

If the volume of the business is large, it is advisable to have two assistant traffic managers, one in charge of the export and the other in charge of the domestic traffic; but these two should cooperate in every way possible.

The size of the clerical staff should, of course, be dependent on the volume of the details connected with the work of each division. As the department is developed, each branch is specialized and each employe has a particular assignment.

It is not possible to give an organization chart of a combined foreign and domestic traffic department that could be followed in all cases, but a diagram of a department developed sufficiently to handle an average business is shown on page 19.

Where the export end is only a part of the business, it is desirable that a separate system be installed for handling the office records of that department. Not only should the export manager have complete records of every detail of his own routine business well in hand, but there will arise frequent occasions when records of his own relations with other departments of his company, in regard to export orders, should be available. Therefore the department should be thoroughly systematized and should have his personal and constant supervision. In handling export traffic, as well as the domestic, there is no question but that the duties of the skillful traffic manager are interwoven with the work of

the other departments necessary to the conduct of any large business.

No export department is complete without an up to date foreign atlas by which an acquaintance with foreign countries, capitals, seaports, and commercial centres may be easily obtained; and this atlas should be studied by the export manager during his leisure time.

THE EXPORT TRAFFIC MANAGER.—The export traffic manager is the person in charge of the ocean traffic of his employer, which may be an inland manufacturing company or other industry, a merchant in a seaport, a forwarding company, or anyone that handles this kind of traffic in sufficient volume to warrant his employment.

The export traffic manager is the traffic expert who has a combined knowledge of the vital phases of ocean traffic; that is, one who has a practical understanding of all the elements that enter into foreign traffic; such as, the booking of shipments, the packing required for adequate protection of goods, the calculation of export weights and measures, the marking of packages for foreign shipment, ocean freight rates, shipments in bond, drawback, steamship bills of lading (*See Form Nos. 25, 26, 55 of Red Book*) through export bills of lading, consular invoices (*See Form Nos. 36, 37, 40 of Red Book*) Custom House clearances (*See Form Nos. 29, 47, 48 of Red Book*) and marine insurance (*See Form No. 34 of Red Book.*) He must also be familiar with the location of the principal ports of the world and the fastest and cheapest routes available for shipment thereto.

The export traffic manager is the transportation representative of the shipper in all transactions with the various steamship companies, and must keep in touch with them constantly in order to determine the lowest rates than can be obtained commensurate with service required.

QUALIFICATIONS.—The most essential qualification for a successful export traffic manager is a high degree of diplomatic ability. He should have the facility of applying himself to new and varied tasks; that is, he should be especially versatile and resourceful. He should also possess a considerable amount of common sense and good judgment. There is no other phase of transportation where the qualifications above mentioned are as essential as they are in the handling of export traffic. Intimate acquaintance and association with steamship representatives and with men actually handling his export shipments are valuable assets to the export traffic manager. It cannot be emphasized too strongly that the export traffic manager should acquire a thorough knowledge of the geography of the world, and should devote as much time as possible to this study. Exact knowledge of trade routes and foreign ports is as necessary for the export man, as knowledge of railroad routes and junctions in this country is necessary for the domestic traffic man. He should know the individual merits of the various steamship lines and the most economical and satisfactory means of transportation—not only within this country, but also in shipping from it—and he should be well versed in the many details which accompany the exportation of goods.

The export traffic manager should be familiar with the United States Shipping Act as amended* the Merchant Marine Acts,* particularly the sections which affect the relations between shippers and carriers by water, and he should have a comprehensive understanding of the Rules of Practice Before the United States Shipping Board.* He should possess some knowledge of marine insurance, at least sufficient to

* See Harter Act, Shipping Acts and "Rules of U. S. S. B." in Red Book.

enable him to know that his shipments are properly insured. He should be conversant with such documents as the Shipping Permit, Export Declaration, Dock Receipt, Ocean Bill of Lading, Through Export Bill of Lading, Parcel Receipt, and Consular Invoice. (*For these documents see Form Nos. 25, 26, 27, 28, 29, 31, 33, 36, 55, of Red Book*).

He should understand the meaning of the various export traffic terms and abbreviations, and should possess a knowledge of foreign exchange. He should also understand the metric system of weights and measures (*See "Metric System" section in Red Book*) as well as cubic measurement, and how export weights and measurements are calculated.

DUTIES OF THE EXPORT TRAFFIC MANAGER.—Some of the important duties pertaining to this position are as follows:

The export traffic manager should follow up the manufacturers who are executing orders for shipment abroad, to see that the goods are delivered within the required time; he must know that they are packed and marked properly, and that they are forwarded to sea-board in time to make connection with the scheduled outgoing steamer. He must have close connection with the steamship companies and know all the competing lines—both the standard and unreliable—sailing to foreign ports. The "unreliable" lines are those which operate between this country and foreign ports, but their dates of sailing are irregular and frequently not in accordance with schedule.

It is essential also for him to be familiar with rates, not only with the domestic rates and the rates from port of sailing, but also the rates covering the entire movement of his freight to the final port of destination. He must know what tonnage is moving to a given port

at the time when he has shipments destined to the same port, in order that he may make his freight bookings with the steamship company giving the lowest freight rates consistent with satisfactory service.

Many opportunities are open for the wideawake man to effect considerable saving in the cost of transportation by being familiar with foreign methods of transit; that is, the various means of transshipment from the ports of call to the ports of final destination.

He must see that the goods are delivered to the steamer, and that a proper receipt is obtained and subsequently exchanged for a bill of lading. He must also attend to Custom House clearance and take out the necessary insurance against all risk from the time goods leave the point of origin until they arrive at destination or warehouse of the ultimate consignee. In other words, he must take full charge of the goods from the time they leave the hands of the manufacturer in this country until they are safely placed on board steamer.

In handling import traffic he should attend to the details of all Custom House work, including rates of duty on various commodities, insurance of goods after arrival where necessary, storage and sampling, shipping to inland points, and obtaining rates applying thereto.

He should prepare and attend to the presentation and collection of all claims, and should strive to maintain cordial relations with the steamship companies and maintain a reputation for cooperation and honest dealing.

Chapter XIX

STEAMSHIP LINES AND ROUTES

CLASSIFICATION.—The steamers engaged in ocean traffic may be classified into practically five groups as follows:

First: Mail and passenger steamers, which are fitted out quite luxuriously, and while they are built for great speed, primarily for rapid transportation of passengers, they are also equipped to handle substantially all kinds of high class freight, and are provided with mechanisms whereby cargoes are loaded and unloaded with great acceleration.

Second: Combination liners, which have a large cargo space and transport both passengers and large quantities of freight. There is little difference between these two types of steamers. They undoubtedly carry the largest number of passengers and are also noted for their speed, size, fine equipment, and the regularity with which they are operated over established routes on schedules.

Third: The cargo steamers, which carry freight exclusively, constitute this class and are operated on schedules over regular routes. These steamers are fitted for the carriage of practically all kinds of articles which move in less than shiploads. They are also fast and are operated with great efficiency.

Fourth: This class consists of the cargo steamers, generally known as "tramps." These vessels have no regular routes, but they transport a very large portion of the low grade commodities in full shiploads. They are often chartered for long voyages and, after discharge of cargoes at destinations, they are again chartered to transport freight to some other port of the world.

Fifth: This class consists of the specially constructed vessels; such as tank steamers and vessels used for transporting coal, lumber, etc. They are generally owned and operated by private industries.

OCEAN ROUTES.—As the railroads traverse the land, and are divided into main arteries fed by numerous branches, so it is with ocean transportation. While there are no visible routes upon the ocean, yet the main trade routes are as definitely fixed and regularly traveled as the great railroad trunk lines. These ocean trade routes like the rail trunk lines are similarly fed by numerous branches.

IMPORTANT ROUTES.—The important trade routes are as follows:

1. The North Atlantic route, connecting the North-eastern seaports of the United States and the Western seaports of Europe. Over this route are operated the largest and fastest passenger and cargo steamers of the world, and by far the great majority of vessels travel over this route.

2. The route from the Eastern seaports of the United States and Western Europe via the Strait of Gibraltar, the Mediterranean Sea and the Suez Canal to India, East Africa, the Philippines, China, and Japan.

3. The route from the Atlantic Coast ports of the United States and Europe to South Africa, Australia, and New Zealand.

4. The route from the Atlantic Coast and Gulf ports to the ports of South America. Steamers engaged in trade between these ports and the ports on the West coast of South America now rarely travel through the Strait of Magellan, but move via the Panama Canal.

5. The Caribbean route, which may be more properly called a group of routes. Over this route, or group or routes, steamers are operated from the Atlantic and Gulf ports of the United States to the ports of the West Indies, Mexico, Central America, and the North Coast of South America.

6. The North Pacific route, which is the most important trade route in the Pacific Ocean and connects the ports on the Pacific Coast of North America with the ports of the Orient; viz., Yokohama, Manila, Shanghai, and other important ports of call.

7. The Canadian Australasian route, connecting the Pacific Coast ports of San Francisco, Seattle, and Vancouver with New Zealand and Australia.

8. The Panama Canal may be considered as a continuation of the Caribbean route; for, prior to the opening of the canal, a large freight tonnage was transhipped by rail across the Isthmus. The accomplishment of this wonderful engineering feat—the construction of the Panama Canal, whereby the Atlantic and Pacific were joined together—has resulted in the establishment of a great and distinct ocean highway. Formerly vessels sailing from ports on the Atlantic coast to ports on the West coast of North and South America as well as to the Far East took the long and dangerous voyage around Cape Horn through the rough and stormy Strait of Magellan. This important trade route was greatly shortened and, consequently, not only traffic which was previously transhipped by rail across the Isthmus, but also a large portion of that traffic which was shipped via the South American, South African, and Suez Canal routes, is now forwarded via the Panama Canal.

The ocean trade between the Atlantic and Gulf ports of the United States and the Pacific ports of North and

South America, Manila, Australia, Japan, and China, moves usually via the Panama Canal. The canal is also used by steamers sailing from Great Britain and Western Europe to the Pacific ports of North and South America.

OTHER ROUTES.—The general trade routes which have been described are only a few of the many courses traveled by ocean steamers. It is naturally the practice of owners of vessels to endeavor to select the route that will produce the most profit. Hence courses of steamers cross and recross and they are at all times passing from one trade route to another. This is the general routine with “tramp” steamers, and it is not an uncommon event for owners of steamship lines operating over regular routes to divert vessels to other routes in order to secure desirable tonnage.

MAP OF PRINCIPAL OCEAN LINES.—The map furnished with this course should be carefully studied, in order that the most important ocean routes followed by steamers, and the principal ports of call, will be visualized in the student’s mind.

The various trade routes are shown in different colors and the world’s principal ports of call are represented by solid red circles. The key to the map is shown in the lower right hand corner and will serve to locate the various lines.

VALUE OF THE MAP.—In the education of the export traffic man it is absolutely essential for him to possess a thorough knowledge of the geography of the world. This map should be carefully studied by the student for the purpose of familiarizing himself with the location of the various countries, their principal seaports, and the routes available for shipments.

At the conclusion of the Great War, there were created thirteen new independent states in Europe and

one in the Near East; namely, Czechoslovakia, Finland, Austria, Poland, Latvia, Lithuania, Hungary, Jugoslavia, Latvia, Ukraina, Esthonia, the Georgia and Azerbaijan Republics, and the Kingdom of Hedjaz.

Territorial changes were made, in the following countries: Austria, Bulgaria, France, Germany, Greece, Italy, Rumania, Russia, and Turkey.

The export traffic man should become conversant with the pronunciation of the names of the foreign countries and the important ports of the world as well as the names of the various steamship lines, especially the French and Spanish names.

The importance of the acquisition of geographical knowledge by the export traffic man cannot be too strongly emphasized. Too many traffic men have the most vague ideas as to the location of the Dutch East Indies, Jamaica, and Mauritius, and probably many traffic students would be confounded if they were asked to give the location of these places.

With a foreign atlas conveniently at hand, the location of any port in the world may be readily ascertained. However, the export man who is a live wire and is held in high esteem is the one who can tell right "off the reel" where Colombo, Oslo, Kobe, or Mauritius are located, as well as the lines operating to these ports and the available shipping facilities.

Chapter XX

PACKING AND MARKING EXPORT SHIPMENTS

PACKING FOR EXPORT.—It is the exporter's duty to see to it that the goods are properly and adequately packed for shipment to their particular destination.

The hazards of loss and damage in export shipment, especially to certain South American countries, are very great. The packing sufficient for safe carriage in domestic transportation is usually inadequate for export. Improper packing almost invariably results in damaged goods and loss of time in repairing or replacing the articles; and frequently it results in lost customers.

NECESSITY FOR SECURE PACKING.—Shipments for export are necessarily subjected to frequent and rough handling, and when improperly packed will arrive at destination in bad condition. The loss or damage usually falls upon the consignee or upon the shipper, as the steamship company may disclaim liability under the clause "not responsible for breakage," which is to be found in all bills of lading, and may also claim that the goods were not in proper shipping condition when received by them.

All merchandise, therefore, intended for shipment to foreign ports should be protected by substantial containers and should be securely packed. At the same time, the packing should be as light in weight as possible, as duty is often charged on the gross weight of the package.

PILFERING.—Another important reason for strong packing is to prevent pilfering in transit. It is probable that no amount of care in packing can entirely avert

this, yet strong, well nailed, wire bound or strapped boxes are more immune than those that break open when merely dropped on the floor at a certain angle.

Goods exported are especially subject to the risk of pilfering. At some of the foreign ports, cases lie in great piles on open wharves or quays where watchmen cannot observe each single package. They must often remain for considerable periods where they are not subject to any supervision. The thieves with extraordinary judgment pick out the cases containing articles most easily abstracted and which can be readily sold.

As a further protection against pilfering, it is advisable that cases should not bear any marks which reveal their contents, because they are much more likely to be exempt than those bearing on the cover a description of the wares inside.

Cases containing boots and shoes, cigars, and so forth, will not be accepted by ocean steamship lines for transportation, unless especially protected by metal straps or wires secured by lead seals at the ends, or some equally effective device.

PACKING LIST.—Before export goods are packed at all they should be carefully laid out where no possible danger of confusion exists and checked carefully with invoice.

The packing list should be made in triplicate showing the exact contents of each package, and it must also be prepared in conformity to the regulations of the country to which goods are destined. One copy of this list should be placed inside the package, one copy forwarded with the shipping papers, and the third copy should be retained for the exporter's file.

The shipping clerk must be absolutely certain that exactly the goods ordered and invoiced are actually

packed and shipped. It is advisable, whenever possible, to have two persons do the checking for the purpose of confirmation.

CHECKING.—It is essential that goods be checked carefully before packing when the shipment consists of a number of parts. For example: In shipping a machine, every screw, rivet, bolt and part, small or large, must be counted, after having been fitted into its proper place and found exact.

Careless checking, whereby some essential part of an article is missing upon arrival at destination, is sure to cause great annoyance and dissatisfaction to a customer and invariably involves extra expense and delay in foreign Custom Houses.

WEIGHING GOODS BEFORE PACKING.—The contents of each case should be carefully weighed before packing. There are two reasons for this:

First: The net weight of the goods, together with the gross weight when packed, is evidence that the exact quantity of goods as checked was actually shipped.

Second: The net weight of goods is always required in export trade, and in shipping to some countries, it is also necessary to furnish the *legal weight*, which is the net weight of the goods themselves plus the weight of cartons and other immediate packing.

CONSTRUCTION OF CASES AND CRATES.—The wooden box is probably the most commonly used package, and, when correctly constructed, it makes a very reliable container for many kinds of goods. There are a number of different kinds of boxes, but the best type for general export service is the box with cleated ends. The cleats afford extra nailing surface; they strengthen the ends, and they add greatly to the rigidity of the box. Boxes with uncleated ends should not be used for export freight except in the case of very light articles.

Satisfactory boxes can be made of practically any of the commercially important species of lumber, but it should be of good quality—sound and free from large knots—and should be thoroughly seasoned.

The particular thickness of lumber which should be used depends upon a number of factors, such as the character of the contents of the box, the size and the weight, so no definite instructions can be given on this point. Generally speaking, however, nothing less than one-inch stock should be used unless the package is very small or very light, but security should never be sacrificed to lightness.

Other things being equal, the most important single element in the construction of a box is the nailing. Cement-coated nails should always be used in preference to smooth, uncoated nails, as they have much greater holding power and there is less splitting of the wood in driving them. Nails should never be driven so that the heads are sunk below the surface of the wood, as this greatly reduces their holding power.

As crates at best are weak and nailing easily loosened, it is of utmost importance that the strongest strapping obtainable be used.

Under the new method of diagonally bracing a crate with metal binders, two continuous binders are placed around the crate, each of two wires being placed over four corners diagonally—that is from one side to the other and from a bottom to a top corner. The wires should cross each other in the center of the ends and sides of the crate. After placing the wires, the ends are tensioned with a wire tying machine until the proper braced effect has been accomplished. The machine then seals the ends of the wire. Bracing this way imparts a very firm rigidity to the crate and has the effect of binding it as if in a vise.

Diagonal metal bracing has several advantages over wood diagonal bracing. It may be applied more quickly since the sawing and nailing operations are eliminated and it is cheaper, the metal binders costing less than the wood braces. Other savings, such as the saving in shipping weight, and in space, are also effected. The metal binders weigh only a fraction as much as the wood braces, and occupy practically no space. Since export shipments are rated by their cubic space measurements, as well as total weight, a material saving is effected in this way.

SIZE AND WEIGHT OF CASES.—Cases should not be too large and there should be no waste room. Ocean freight rates are frequently charged on the basis of cubic measurement. Waste of a cubic foot in a case multiplied many times over means the payment of considerable extra and unnecessary freight charges. Moreover, empty space in a case is a source of weakness. Every case should be so packed that it will ride safely regardless of the side on which it is laid.

So much depends on the manner in which goods are packed that the shipper is never safe in ignoring the requests of the buyer, no matter how trivial they may seem. For instance, if the buyer instructs the shipper that no package should exceed a certain weight or dimension, it is likely that the goods have to be loaded on "mule-back" for shipment to the interior. Should he request that the goods be packed in tin-lined cases it probably means that the cases are liable to be exposed to torrential downpours or that the humid atmosphere of the country of destination would otherwise cause deterioration.

The buyer sometimes requests that only one kind of goods be placed in each package. Should the shipper fail to observe this requirement it might result in a

heavy fine by the customs authorities, as some countries will not allow the importation of different kinds of goods in the same package.

HEAVY PACKAGES.—Packages exceeding 4,000 pounds in weight are generally subject to extra charges, known as “heavy lift” charges, which are increased in accordance with the increased weight of the packages. When packages are subject to heavy lift charges, shipper must make provision to put them on board of steamer through direct arrangement with a hoisting company, or by arrangement with the steamship company itself. Furthermore, similar extra charges are apt to be assessed at the port of destination or at transshipping point. Hence, shippers should endeavor, whenever possible, to pack heavy freight so as not to exceed two tons per package, in order to avoid the heavy lift charges.

BALES FOR EXPORT.—Goods packed in bales should be compressed as tightly as possible. The use of bales for certain textile materials is particularly advisable for shipment to those South American countries where import duty is levied on the gross weight of the package. In addition to saving on duty, there are also savings in cost of packing, freight charges, storage charges, and trucking charges.

Experience has shown that a large variety of textile materials can be successfully baled, including not only cloth, blankets, tarpaulins, and covers of various kinds, but also clothing, such as socks, gloves, underwear, coats and trousers.

Much of the success in a baling operation depends upon folding and forming the articles before compressing, so that a firm, rigid bale is secured. All bales should be lined with a strictly waterproof, strong covering under the outer covering of burlap.

This is especially necessary for shipment to South America, because of the damp climate of many of the countries, and because of the practice at many ports of unloading the freight onto lighters and storing goods in the open. The outer covering should never be lighter than ten-ounce burlap.

The bales should be very securely bound, preferably with flat, unannealed steel straps, the ends of which should be tightly sealed. A sufficient number of bands should be used to hold the compression of the bale firmly—the distance between the bands generally not exceeding seven inches. Bales should always have ears on the ends to facilitate handling.

NECESSITY FOR WATERPROOF LINING. — One fundamental difference between export and domestic packing is the invariable necessity of protecting goods for foreign shipment by lining containers with waterproof materials. The cause for this is as follows:

1. For reasons before stated it is very necessary that bales be lined with waterproof lining. Boxes and crates should also be lined with a strictly waterproof lining—paper generally being used—but many large concerns use asphaltum waterproofed paper for this purpose, because it is absolutely waterproof and because it can be folded and bent into corners without breaking the waterproof coating. For wrapping around machinery and other irregular shaped articles, a cloth-covered asphaltum waterproofed paper is generally used, as the cloth covering prevents the paper from tearing.

2. As a rule, except at the great ports of the world, it is generally necessary for vessels to anchor in harbors or roadsteads, from one to five miles off shore, and discharge their cargoes onto lighters, often when the water is very rough. Under these circumstances,

even with the utmost care, it is impossible to deposit slings of freight onto these lighters without frequent bumps, or without an occasional immersion in the waves.

PROPER PACKING INSURES LOWEST TRANSPORTATION CHARGES.—It should be the aim of the export traffic man to have his goods packed in as compact a manner as possible consistent with safe carriage. Frequently articles may be knocked down, or a wheel or other removable parts of machinery may be taken off and packed separately, thereby reducing considerably the cubic measurement. This action is extremely important for the reason that charges are assessed on the basis of weight or measurement at the ship's option.

To illustrate the initiative of a traffic man, the following incident is related:

A number of years ago, two large firms located in the Middle West were engaged in the manufacture of wheelbarrows and made large shipments to South America. In those days little attention was given to the shipping department and the method of efficient packing, boxing, and crating was practically unknown. In fact the shipper was not interested in this part of the business for the reason that the customers paid the charges. At the time this incident occurred the manufacturers were shipping wheelbarrows S. U. ready for use. The Argentine Republic was a large purchaser of wheelbarrows, and these two concerns were competitors for that trade.

The traffic manager of one of these concerns, using his grey matter a little better than the other, conceived an idea of knocking down the wheelbarrows; that is, he nested the three bodies together, took off the wheels and placed them in the top body and strapped them together. He made separate bundles of the handles and

braces, and found by doing this that the cubic measurement was greatly decreased. A salesman was immediately despatched to Buenos Aires who made arrangements to sell the wheelbarrows to the trade in the Argentine at a greatly reduced price C.I.F. (Cost, Insurance, and Freight paid by shipper) Buenos Aires.

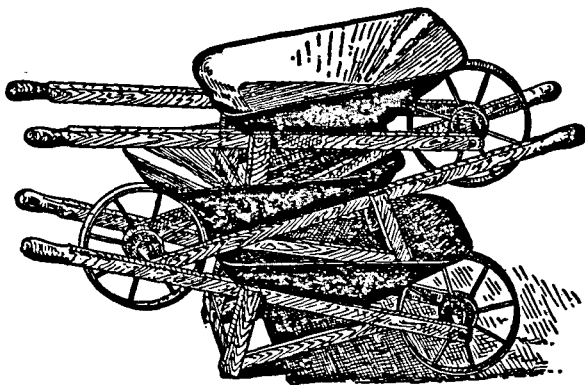
The competing firm soon discovered that its Argentine business had been greatly diminished. Upon investigation, this firm's traffic man found his competitor was forwarding his goods C.I.F. Buenos Aires; so he immediately endeavored to make the same arrangements, but his efforts met with no success. Fully six months elapsed before he ascertained what his rival was doing, but then it was too late; the entire Argentine business had been lost.

The illustrations on page 229 show the result of this man's initiative. The cubic measurement of the three wheelbarrows set up is 89 feet 9 inches; while knocked down the cubic measurement is only 22 feet 9 inches. Steamship rates vary constantly, but we will assume that the rate New York to Buenos Aires is \$12 per gross ton (2240 lbs.), or per measurement ton (40 cubic feet).

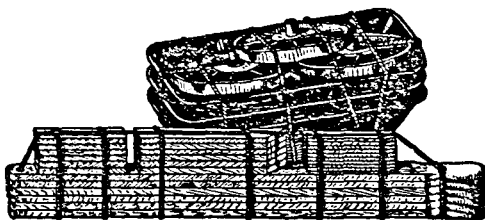
As the charge based on measurement would yield a greater revenue than if based on weight, the charge would be assessed on the basis of measurement. At this rate the charge on the three wheelbarrows S. U. would be \$26.90 and on the same wheelbarrows K. D. \$6.80; the saving thus effected is \$20.10, or \$6.70 for each wheelbarrow.

From the foregoing, the large saving thus effected on one or more carloads of wheelbarrows is readily observed.

MARKING PACKAGES.—The marking of packages is a very important part in export shipping. All packages must be distinctly marked with the port of destination



WHEELBARROWS, S. U.
Cubic Measurement, 89' 9"



THE SAME BARROWS, K. D.
Cubic Measurement, 22' 9"

and with the name of the consignee. Some shippers, however, prefer to mark their packages with a symbol or letters which will identify the packages and their consignee, and quite frequently, the consignee's name in full is not shown on cases, symbols or letters being used instead. The advantages of this practice are quick identification of packages on piers, in the ship, in loading and unloading, and in the shipping manifest. Abbreviation of the name of consignee also facilitates the preparation of shipping papers—bills of lading, manifests, and so forth—and conceals the name of the consignee which, in some instances, may be desirable.

In some foreign countries errors in marking are very costly to the importer. In shipping to some countries in South America, all marks on the packages must be *stenciled*, brush marking not being allowed. Other countries require that the marks, numbers, and so forth, must be placed on two or more *adjacent sides* of the packages. Still others require the net and gross weights in kilograms marked on each package and a number, which must correspond with the number of the package as given in the consular documents. Failure to comply with these regulations always results in fines, delays, and annoyance at destination. Stenciled letters should be not less than two inches in height.

REQUIRED MARKS.—The required marks are: The symbol or name of the consignee; the name of the port of destination, usually placed underneath the symbol; the serial number of the package when shipment consists of more than one package; the gross and net weights in pounds or in kilograms or in both, as may be required; the measurement of length, width, and thickness of the package in feet and inches when so directed.

Shippers should understand that it is quite useless to mark in English *only* such expressions as "Handle

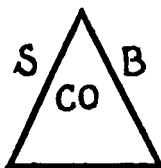
with care," "This side up," and so forth, on packages destined to foreign countries where English is not understood by those who will handle the freight. In fact, all marks of this nature are practically useless.

SYMBOL OF CONSIGNEE.—The symbol represents the consignee and is generally arranged by him. It may be designed in many different forms, but it most often consists of letters either alone or in connection with a diamond, a triangle or a square.

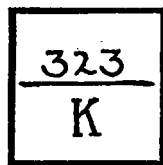
The following are examples of symbols commonly used in export shipping:



KOBE



BUENOS AIRES



DURBAN

These symbols identify the consignee. Yet, in the illustration of the mark for Durban, a number is included which probably refers to the *order* number, or possibly some other identification desired by consignee. The letter shown may represent an initial of the consignee, or it may perchance be used for the purpose of concealing his name.

IMPORTANCE OF THE PORT MARK.—The port mark is the most important of all, but it does not necessarily mean the seaport at which freight is unloaded. The port mark indicates the ultimate port of destination. For example: If a shipment is intended for a consignee in Sao Paulo, Brazil, it should not be marked Santos merely because Santos is the port of call at which steamers discharge cargo destined to that point, but the port mark should be shown as Sao Paulo; al-

though the addition of the words "via Santos" would be correct marking.

MARK SERIAL NUMBERS ON PACKAGES.—When a shipment consists of more than one package, a serial number should be given to each of the packages, which is generally placed alongside of the consignee's symbol. For example: The shipper may receive instructions to "number packages from 20 up." This would mean that one package should be numbered 20, another 21, and thus each package numbered consecutively. It is positively essential that there be no duplicates in these numbers, nor must any number be left out. Duplication of numbers is apt to arouse the suspicion of foreign customs officials of an attempt to defraud, and if a number in a series has been omitted, it may cause the consignee to assume that a package has been lost.

MARKS MUST BE EXACT.—The utmost care must be exercised in marking the exact gross and net weights on packages. They must be as accurate as the most careful weighing can make them and must agree in every respect with the weights given on invoices and consular documents. If discrepancies are found to exist, severe fines are likely to be imposed and consignee is subjected to great inconvenience and delay in obtaining goods, because the customs officials would require that they be unpacked and reweighed.

Packing and Marking; Export Traffic; Metric System sections and Stowage Table of the Red Book should be used as collateral reading.

Chapter XXI

WEIGHT, MEASUREMENT, FOREIGN EXCHANGE AND CONVERSION TABLES

SHIP'S OPTION DEFINED.—When a steamship company quotes a rate “per ton, weight or measurement; ship's option,” it is understood that the rate will be applied on a weight basis if the charge on the weight of the shipment exceeds the charge on the basis of cubic measurement, or on a measurement basis should the charge on that basis exceed the charge by weight. In other words, the quotation means that the freight charges will be assessed either on the basis of weight or measurement, whichever will yield the steamship company the greater revenue.

WEIGHTS AND MEASUREMENTS.—Correct statements of weights and measurements of all export shipments must be given to the steamship company in order that the proper freight charges may be determined. It is also essential that weights be stated exactly because of the local requirements in foreign countries. Errors are costly to importers in many countries. Large fines are often imposed for mistakes in weights, and occasionally goods have been actually confiscated. (*See Stowage Table in Red Book*).

GROSS, LEGAL, AND NET WEIGHTS.—In some countries duties are imposed on the gross weight and in shipping thereto, it should be the endeavor of the exporter to use as light containers as may be adaptable to safe carriage. In several countries duties are imposed on the gross weight of certain goods and on other goods on the net weight.

When shipping to countries where duty is assessed on gross weight, every pound saved in weight of packing

and containers effects a saving to the consignee in the delivered cost of the goods.

As an illustration of bad judgment, or careless disregard of the customer's interests, on the part of an exporter in shipping to a country where duty is imposed on gross weight, a South American importer describes his experience in importing from the United States cushions for use in trolley cars as follows:

"These cushions weighed 21 pounds and the case weighed 60 pounds. Duty was, therefore, paid on 81 pounds, whereas the total gross weight could easily have been made 30 pounds."

In Mexico, the Argentine, and several other countries, it is necessary to give the *legal* weight of goods in addition to the gross and net weights, because duties are at times imposed on the legal weight, sometimes on the net weight, and occasionally on the gross weight. These weight terms are defined as follows:

Gross weight is the weight of the entire package as shipped.

Legal weight is the net weight of the naked goods plus the weight of interior wrappings, cartons, tins, and all other immediate packing.

Net weight is the intrinsic weight of the goods alone without any packing.

CUBIC MEASUREMENT EXPLAINED.—In export arithmetic, 12 cubic inches are called a cubic foot and 40 cubic feet equal one cubic ton. Fractions of less than one-half inch on a dimension are generally dropped; fractions of one-half inch or greater are generally increased to the next higher inch. For example. A case measuring 1 ft. 2¾ in. x 2 ft. 3½ in. x 3 ft. 8¼ in. would be written as 1/3 x 2/4 x 3/8. By this method the steam-

ship company obtains the advantage of the even fraction.

In shipping export freight, it is always necessary to ascertain the cubic measurement of packages, and the dimensions of each package, in feet and inches, should be marked thereon and also noted on the receipt.

In measuring a package, the extreme measurement in each direction has to be applied. In determining the measurement of an irregular package, such as a container of machinery, each measurement must be taken over the greatest projection. The diameter of a barrel at the bilge is the breadth and thickness dimensions used in calculating its cubic measurement.

DETERMINING CUBIC MEASUREMENT.—Books containing tables giving the solid contents of packages are published and may be easily obtained. But if the export man desires to determine the cubical content of a package for himself, it is merely a matter of arithmetic. The length, breadth, and thickness must be reduced from feet and inches to cubic inches and the total divided by 1728 (the number of cubic inches in a cubic foot) and the result is in cubic feet. However, in export arithmetic, the fractions of a cubic foot are not expressed in the usual manner; that is, by placing the remainder over the divisor, but they are shown in twelfths of a cubic foot, determined by dividing the remainder by 144 (1/12th of 1728).

For example: Take the measurement of the before mentioned case— $1/3 \times 2/4 \times 3/8$. Reduce each to inches and we have

$$1/3 = 15 \text{ inches}$$

$$2/4 = 28 \quad "$$

$$3/8 = 44 \quad "$$

Multiplying these together for cubic content, $15 \times 28 \times 44$, we get 18,480 cu. in. To reduce these inches to

cubic feet, first divide by 1728. The answer is 10, with a remainder of 1200, which would ordinarily be expressed as $\frac{1200}{1728}$. But under the export arithmetic rule, we divide the 1200 by 144 and get 8, with a remainder of $\frac{48}{144}$, which is less than one-half and is therefore dropped. Thus the cubic measurement of this case is found to be 10/8, or 10 cubic feet 8 cubic inches.

THE DUODECIMAL RULE.—There is another method by which the cubic content of a package may be obtained by multiplication alone, without dividing by 1728 and 144. It is called the duodecimal system of multiplication and is usable when the unit of computation is 12, as when 12 inches is the unit in calculations of measurement. The rule for this method is as follows:

The feet and inches of two dimensions should be set down one under the other; that is, feet under feet and inches under inches. Each term of the multiplicand, beginning at the lowest, is multiplied in turn by each term of the multiplier, beginning at the highest. The result of each first multiplication is set immediately under its corresponding term and one carried for every twelve from one term to the next higher. The product of the multiplication by each successive term in the multiplier is set successively one place farther to the right. The sum of the separate products is the total product. This product now becomes the multiplicand and the third dimension is used as the multiplier.

Example: To ascertain the cubic content of a package measuring 2 ft. 5 in. x 4 ft. 7 in. x 5 ft. 9 in., usually written as $2/5 \times 4/7 \times 5/9$, proceed as follows:

| | | | | |
|-----|----|---|----|---|
| (a) | 2 | 5 | | |
| (b) | 4 | 7 | | |
| | | | | |
| (c) | 1 | 8 | | |
| (d) | 8 | 2 | 11 | |
| (e) | 1 | 2 | | |
| | | | | |
| (f) | 11 | 0 | 11 | |
| (g) | 5 | 9 | | |
| | | | | |
| (h) | 55 | 4 | 7 | |
| (j) | 8 | 3 | 8 | 3 |
| | | | | |
| (k) | 63 | 8 | 3 | 3 |

Answer 63/8

The explanation of the steps in securing that answer is as follows:

We first set down the dimension 2' 5"—labeled (a)—as the multiplicand; and under it we place another dimension, 4' 7"—labeled (b)—as the multiplier. Now multiply 5 by 4, as 5 is the lowest term—inches—of the multiplicand and 4 is the highest term—feet—of the multiplier. This gives us 20. Since 12 is the unit, and there is only one 12 in 20, we set down the remainder, 8", under inches and carry the 1' to the feet column. This gives us line (c). Then multiply 2' by 4' and place the result, 8', in the feet column, line (d). The term 5 is now multiplied by 7 and the result is 35. Dividing this mentally by 12 we get 2 and a remainder of 11. The 2 is placed in the inch column and the 11 carried one place farther to the right in line (d). Multiply the 2 in line (a) by the 7 and we have 14, which reduces to 1' 2" and these terms are placed in their respective columns in line (e). The multiplication is now complete and we add the terms. The 11 in line (d) is brought down to line (f). Then $8+2+2=12$, which is carried to

the feet column as 1, leaving 0 to go in the inch column line (f). Column 1 then adds $1+1+8+1=11$, which is set down as 11' in line (f).

The third dimension, 5' 9", is now set down as the multiplier on line (g) and the multiplication is performed in the same way as outlined in the preceding paragraph.

Fractions of one-half inch or over are counted as one inch. Fractions under one-half inch are dropped. Therefore, the correct measurement for this package would be 63 cu. ft. 8 cu. in.

THE METRIC SYSTEM.—The Metric System of weights and measures is commonly used in most of the important countries of the world, with the exception of the British Empire, the Far East, and the United States. In view of this fact, it is evident that the export traffic man should possess knowledge of this system and become familiar with the various terms, retaining in memory our equivalents of the standard denominations for length, weight, and capacity. Conversion tables should be kept available for quick reference, so that the equivalent of a metric term in our common denomination, or the equivalent of an American term in the metric system, may be readily ascertained.

In the Metric System, when it is desired to indicate a division of a unit, Latin prefixes are used; namely, *deci*, meaning a tenth; *centi*, meaning a hundredth; *milli*, meaning a thousandth: To indicate that a unit is to be multiplied, Greek prefixes are employed; thus, *deka* means ten times; *hecto* means one hundred times; *kilo* means a thousand times.

The denominations of the metric system most commonly used are as follows: In measures of length; the

meter, centimeter, and kilometer. In measures of weight; the gram, centigram, and kilogram. In measures of capacity; the liter and hectoliter. The equivalents of the following metric denominations should be memorized:

The meter is equal to about 3 feet 3 1/3 inches.

The kilogram is equal to about 2 1/5 pounds.

In dry measure, one liter is equal to a little less than one quart.

In liquid measure, one liter is equal to a little more than one quart.

ABSTRACT OF METRIC WEIGHTS.—

Decagram (10 grams) equals 0.3527 ounce.

Hectogram (100 grams) equals 3.5274 ounces.

Kilogram (1,000 grams) equals 2.2046 pounds.

Myriagram (10,000 grams) equals 22.046 pounds.

Quintal (100,000 grams) equals 220.46 pounds.

Millier or tonnea ton (1,000,000 grams) equals 2,204.6 pounds.

ABSTRACT OF METRIC DRY MEASURE.—

Liter equals 0.908 quart.

Decaliter (10 liters) equals 9.08 quarts.

Hectoliter (100 liters) equals 2.838 bushels.

Kiloliter (1,000 liters) equals 1,308 cubic yards.

ABSTRACT OF METRIC LIQUID MEASURES.—

Liter equals 1.0567 quarts.

Decaliter (10 liters) equals 2.6417 gallons.

Hectoliter (100 liters) equals 26.417 gallons.

Kiloliter (1,000 liters) equals 264.17 gallons.

ABSTRACT OF METRIC MEASURES OF LENGTH.—

Centimeter (1/100 meter) equals 0.3937 inches.

Meter equals 39.37 inches.

Decameter (10 meters) equals 393.7 inches.

Hectometer (100 meters) equals 328 feet 1 inch.

No difficulty should be experienced in the use of the metric system, because the weights and measures are multiplied and divided in just the same manner as are our dollars and cents. Moving the decimal point a place in one direction or the other multiplies or divides by ten; moving it thus two places, multiplies or divides by one hundred, and so on.

TABLES FOR CONVERSION OF MONEY.—The conversion tables of foreign money into United States currency and vice versa is based upon the values of foreign coins as published by the United States Treasury Department, which values do not include rates of exchange. The conversion tables of Great Britain and Italy, pages 243 to 245, inc., will illustrate the conversion of pounds sterling, shillings, and pence to dollars and cents and dollars to lire.

EXAMPLES OF CONVERSION.—To find the value of foreign money expressed by one figure, find the figure in the top margin of the proper table and its value in United States currency will be found in the first line below. (*See Monetary Unit Table in Red Book*).

If expressed by two figures, find the tens in the left hand margin and the units in the top margin; the value is at the intersection of the two columns.

If expressed by three or more figures, find the value of the first two figures and multiply by 10, 100, and so forth, as may be required.

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To ascertain the value of 75,436 pounds, 18 shillings, and 5 pence in United States currency:

| | |
|--|--------------|
| Find the value of 75 pounds and multiply by 1,000, which gives..... | \$364,987.50 |
| Then find the value of 43 pounds and multiply by 10, which gives..... | 2,092.595 |
| Then find the value of 6 pounds, which is | 29.199 |
| In the table Shillings and Pence to Dollars and Cents, find the value of 18 shillings and 5 pence, which is. | 4.481 |

Adding the several results gives \$.367,113.775, or \$367,113.78, the desired equivalent.

To ascertain the value of \$7,675 in Italian currency:

| | |
|---|----------------|
| Find the value of \$76 and multiply by 100, which gives | 39,378.20 lire |
| Then find the value of \$75, which is. | 388.60 lire |

Adding the two results gives...39,766.80, or 39,766 lire and 80 centesimi (a centesimo being the hundredth part of a lira), the equivalent desired.

CONVERSION AT PREVAILING RATES.—Whatever may be the prevailing rate of exchange, by use of the following rules, British currency may readily be converted to United States currency, or vice versa:

Rule 1. To reduce shillings and pence to fractions of a pound, multiply the shillings by .05, because one shilling is 1/20th or 5 hundredths of a pound: Multiply the pence by .004 1/6, because 1 pence is 1/24th or 4 1/6 thousandths of a pound. But to avoid the use of the

fraction $1/6$, add 1 if result is over 12, and 2 if over 35, and the result will be the same. A somewhat quicker method is employed by exchange handlers whereby the pounds and shillings are multiplied by the rate and to this result they add twice the pence, which gives the same result.

Example (a). To convert £16 12s 9d to dollars and cents, rate of exchange \$4.85, procedure is as follows:

| | | |
|--------------------------|---|-----------------|
| | £16 | |
| Multiply 12s by .05..... | .60 | |
| Multiply 9d by .004..... | .038 | (Result is over |
| | <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> | 35, so add 2) |
| Total | £16.638 | |
| Multiply by rate..... | 4.85 | |
| | <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> | |
| | 83190 | |
| | 133104 | |
| | 66552 | |
| | <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> | |
| | \$80.69430 or \$80.69 | |

Example (b)

| | | |
|-----------------|---|-------------|
| Multiply | £16.60 | |
| By rate | 4.85 | |
| | <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> | |
| | 8300 | |
| | 13280 | |
| | 6640 | |
| | <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> | |
| Total | \$80.51 | |
| Double 9d | .18 | |
| | <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> | |
| | \$80.69 | which gives |
| | | same result |

Rule 2. To convert United States currency to pounds, shillings, and pence, divide the amount by rate of exchange, which will give number of pounds; multiply remainder, if any, by 20 and divide by rate, which will give number of shillings; multiply remainder, if any, by 12 and divide by rate, which will give the number of pence.

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Example: To convert the result of the foregoing example (\$80.69) back to pounds, shillings, and pence, rate of exchange \$4.85, proceed thus:

| | | |
|----------------------|-----------------------|-----|
| | 485)8069(16 pounds | |
| | 485 | |
| | ----- | |
| | 3219 | |
| | 2910 | |
| | ----- | |
| | 309 | |
| Multiply by | 20 | |
| | ----- | |
| Divide by rate | 485)6180(12 shillings | |
| | 485 | |
| | ----- | |
| | 1330 | |
| | 970 | |
| | ----- | |
| | 360 | |
| Multiply by | 12 | |
| | ----- | |
| Divide by rate | 485)4320(8 | 440 |
| | 3880 | 485 |
| | ----- | |
| | 440 | |
| Result | £16 12s 9d | |

CONVERSION TABLES

GREAT BRITAIN—POUNDS TO DOLLARS

| | 0 | 1 | 2 | 3 | 4 |
|--------|----------|----------|----------|----------|----------|
| | Dollars | Dollars | Dollars | Dollars | Dollars |
| 10 | 48.665 | 53.5315 | 58.398 | 63.2645 | 68.131 |
| 20 | 97.330 | 102.1965 | 107.063 | 111.9295 | 116.796 |
| 30 | 145.995 | 150.8615 | 155.728 | 160.5945 | 165.461 |
| 40 | 194.660 | 199.7265 | 204.593 | 209.4595 | 214.326 |
| 50 | 243.325 | 248.1915 | 253.058 | 257.9245 | 262.791 |
| 60 | 291.990 | 296.8565 | 301.723 | 306.5895 | 311.456 |
| 70 | 340.655 | 345.5215 | 350.388 | 355.2545 | 360.121 |
| 80 | 389.320 | 394.1865 | 399.053 | 403.9195 | 408.786 |
| 90 | 437.986 | 442.8515 | 447.718 | 452.5845 | 457.451 |
| Pounds | 5 | 6 | 7 | 8 | 9 |
| | Dollars | Dollars | Dollars | Dollars | Dollars |
| 10 | 24.3325 | 29.199 | 34.0655 | 38.932 | 43.7985 |
| 20 | 72.9975 | 77.864 | 82.7305 | 87.597 | 92.4635 |
| 30 | 121.6625 | 126.529 | 131.3955 | 136.262 | 141.1285 |
| 40 | 170.3275 | 175.194 | 180.0605 | 184.927 | 189.7935 |
| 50 | 218.9925 | 223.859 | 228.7255 | 233.592 | 238.4585 |
| 60 | 267.6575 | 272.524 | 277.3905 | 282.257 | 287.1235 |
| 70 | 316.3225 | 321.189 | 326.0555 | 330.922 | 335.7885 |
| 80 | 364.9875 | 369.854 | 374.7205 | 379.587 | 384.4535 |
| 90 | 413.6525 | 418.519 | 423.3855 | 428.252 | 433.1185 |
| 90 | 462.3175 | 467.184 | 472.0505 | 476.917 | 481.7835 |

SHILLINGS AND PENCE TO DOLLARS AND CENTS

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | \$0.243 | \$0.020 | \$0.041 | \$0.061 | \$0.081 | \$0.101 | \$0.122 | \$0.142 | \$0.162 | \$0.183 | \$0.203 | \$0.223 |
| 2 | .243 | .264 | .284 | .304 | .324 | .345 | .365 | .385 | .406 | .426 | .446 | .466 |
| 2 | .487 | .507 | .527 | .548 | .568 | .588 | .608 | .629 | .649 | .669 | .689 | .710 |
| 3 | .730 | .750 | .771 | .791 | .811 | .831 | .852 | .872 | .892 | .913 | .933 | .953 |
| 4 | .973 | .994 | 1.014 | 1.034 | 1.054 | 1.075 | 1.095 | 1.115 | 1.136 | 1.156 | 1.176 | 1.196 |
| 5 | 1.217 | 1.237 | 1.257 | 1.278 | 1.298 | 1.318 | 1.338 | 1.359 | 1.379 | 1.399 | 1.419 | 1.440 |
| 6 | 1.460 | 1.480 | 1.501 | 1.521 | 1.541 | 1.561 | 1.582 | 1.602 | 1.622 | 1.643 | 1.663 | 1.683 |
| 7 | 1.703 | 1.724 | 1.744 | 1.764 | 1.784 | 1.805 | 1.825 | 1.845 | 1.866 | 1.886 | 1.906 | 1.926 |
| 8 | 1.947 | 1.967 | 1.987 | 2.008 | 2.028 | 2.048 | 2.068 | 2.089 | 2.109 | 2.129 | 2.149 | 2.170 |
| 9 | 2.190 | 2.210 | 2.231 | 2.251 | 2.271 | 2.291 | 2.312 | 2.332 | 2.352 | 2.373 | 2.393 | 2.413 |
| 10 | 2.433 | 2.454 | 2.474 | 2.494 | 2.514 | 2.535 | 2.555 | 2.575 | 2.596 | 2.616 | 2.636 | 2.656 |
| 11 | 2.677 | 2.697 | 2.717 | 2.738 | 2.758 | 2.778 | 2.798 | 2.819 | 2.839 | 2.859 | 2.879 | 2.900 |
| 12 | 2.920 | 2.940 | 2.961 | 2.981 | 3.001 | 3.021 | 3.042 | 3.062 | 3.082 | 3.103 | 3.123 | 3.143 |
| 13 | 3.163 | 3.184 | 3.204 | 3.224 | 3.244 | 3.265 | 3.285 | 3.305 | 3.325 | 3.346 | 3.366 | 3.386 |
| 14 | 3.407 | 3.427 | 3.447 | 3.468 | 3.488 | 3.508 | 3.528 | 3.549 | 3.569 | 3.589 | 3.609 | 3.630 |
| 15 | 3.650 | 3.670 | 3.691 | 3.711 | 3.731 | 3.751 | 3.772 | 3.792 | 3.812 | 3.833 | 3.853 | 3.873 |
| 16 | 3.893 | 3.914 | 3.934 | 3.954 | 3.974 | 3.995 | 4.0.5 | 4.035 | 4.055 | 4.076 | 4.096 | 4.116 |
| 17 | 4.137 | 4.157 | 4.177 | 4.198 | 4.218 | 4.238 | 4.258 | 4.279 | 4.299 | 4.319 | 4.339 | 4.360 |
| 18 | 4.380 | 4.400 | 4.421 | 4.441 | 4.461 | 4.481 | 4.502 | 4.522 | 4.542 | 4.563 | 4.583 | 4.603 |
| 19 | 4.623 | 4.644 | 4.664 | 4.684 | 4.704 | 4.725 | 4.745 | 4.765 | 4.786 | 4.806 | 4.826 | 4.846 |

DOLLARS TO POUNDS, SHILLINGS AND PENCE

| Dollars | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------|----------|-----------|-----------|-----------|---------|---------|----------|----------|----------|----------|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| 10 | 2 1 1½ | 0 4 1½ | 0 8 2½ | 0 12 4 | 0 16 6½ | 1 0 0½ | 1 4 8 | 1 8 9½ | 1 12 10½ | 1 16 11½ |
| 20 | 4 2 2½ | 2 5 2½ | 2 9 3½ | 2 13 5 | 2 17 0½ | 3 1 7½ | 3 5 9 | 3 9 10½ | 3 13 11½ | 3 18 1 |
| 30 | 6 3 3½ | 4 6 3½ | 4 10 5 | 4 14 6½ | 4 18 7½ | 5 2 9 | 5 6 10½ | 5 10 11½ | 5 15 0½ | 5 19 2½ |
| 40 | 8 4 4½ | 6 8 6 | 6 12 7½ | 6 16 8½ | 6 20 9½ | 7 3 10 | 7 7 11½ | 7 12 0½ | 7 16 2 | 8 0 3½ |
| 50 | 10 5 5½ | 10 9 7 | 10 13 8½ | 10 17 9½ | 11 1 11 | 11 5 0½ | 11 10 1½ | 11 14 3 | 11 18 4½ | 12 2 5½ |
| 60 | 12 6 7 | 12 10 8½ | 12 14 9½ | 12 18 10½ | 13 3 0½ | 13 7 1½ | 13 11 2½ | 13 15 4 | 13 19 5½ | 14 3 6½ |
| 70 | 14 7 8 | 14 11 9½ | 14 15 10½ | 15 0 0 | 15 4 1½ | 15 8 2½ | 15 12 4 | 15 16 5½ | 16 0 6½ | 16 4 8 |
| 80 | 16 8 9½ | 16 12 10½ | 16 16 11½ | 17 1 11 | 17 5 2½ | 17 9 3½ | 17 13 5 | 17 17 6½ | 18 1 7½ | 18 5 9 |
| 90 | 18 9 10½ | 18 13 11½ | 18 18 1 | 19 2 2½ | 19 6 3½ | 19 10 5 | 19 14 6½ | 19 18 7½ | 20 2 9 | 20 6 10½ |

CENTS TO SHILLINGS AND PENCE

| Cts. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. |
| 10 | 0 5 | 0 5½ | 0 6 | 0 6½ | 0 7 | 0 7½ | 0 8 | 0 8½ | 0 9 | 0 9½ |
| 20 | 0 9½ | 0 10½ | 0 10½ | 0 11½ | 0 11½ | 1 0½ | 1 0½ | 1 1½ | 1 1½ | 1 2½ |
| 30 | 1 2½ | 1 3½ | 1 3½ | 1 4½ | 1 4½ | 1 5½ | 1 5½ | 1 6½ | 1 6½ | 1 7½ |
| 40 | 1 7½ | 1 8½ | 1 8½ | 1 9½ | 1 9½ | 1 10½ | 1 10½ | 1 11½ | 1 11½ | 2 0½ |
| 50 | 2 0½ | 2 1½ | 2 1½ | 2 2½ | 2 2½ | 2 3½ | 2 3½ | 2 4½ | 2 4½ | 2 5½ |
| 60 | 2 5½ | 2 6 | 2 6½ | 2 7 | 2 7½ | 2 8 | 2 8 | 2 9 | 2 9½ | 2 10 |
| 70 | 2 10½ | 2 11 | 2 11½ | 3 0 | 3 0½ | 3 1 | 3 1 | 3 2 | 3 2½ | 3 3 |
| 80 | 3 3½ | 3 4 | 3 4½ | 3 5 | 3 5½ | 3 6 | 3 6 | 3 7 | 3 7½ | 3 8 |
| 90 | 3 8½ | 3 9 | 3 9½ | 3 9½ | 3 10½ | 3 10½ | 3 11½ | 3 11½ | 4 0½ | 4 0½ |

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LIRE TO DOLLARS

| Lire | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 10 | \$1.93 | \$0.193 | \$0.386 | \$0.579 | \$0.772 | \$0.965 | \$1.158 | \$1.351 | \$1.544 | \$1.737 |
| 20 | 3.86 | 2.123 | 2.316 | 2.509 | 2.702 | 2.895 | 3.088 | 3.281 | 3.474 | 3.667 |
| 30 | 5.79 | 4.053 | 4.246 | 4.439 | 4.632 | 4.825 | 5.018 | 5.211 | 5.404 | 5.597 |
| 40 | 7.72 | 5.983 | 6.176 | 6.369 | 6.562 | 6.755 | 6.948 | 7.141 | 7.334 | 7.527 |
| | 9.65 | 7.918 | 8.106 | 8.299 | 8.492 | 8.685 | 8.878 | 9.071 | 9.264 | 9.457 |
| 50 | 9.65 | 9.843 | 10.036 | 10.229 | 10.422 | 10.615 | 10.808 | 11.001 | 11.194 | 11.387 |
| 60 | 11.58 | 11.773 | 11.966 | 12.159 | 12.352 | 12.545 | 12.738 | 12.931 | 13.124 | 13.317 |
| 70 | 13.51 | 13.703 | 13.896 | 14.089 | 14.282 | 14.475 | 14.668 | 14.861 | 15.054 | 15.247 |
| 80 | 15.44 | 15.633 | 15.826 | 16.019 | 16.212 | 16.405 | 16.598 | 16.791 | 16.984 | 17.177 |
| 90 | 17.37 | 17.563 | 17.756 | 17.949 | 18.142 | 18.335 | 18.528 | 18.721 | 18.914 | 19.107 |

DOLLARS TO LIRE

| Dollars | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Lire | Lire | Lire | Lire | Lire | Lire | Lire | Lire | Lire | Lire |
| 10 | 51.813 | 5.181 | 10.363 | 15.544 | 20.725 | 25.907 | 31.088 | 36.269 | 41.451 | 46.632 |
| 20 | 103.627 | 56.995 | 62.176 | 67.358 | 72.539 | 77.720 | 82.902 | 88.083 | 93.264 | 98.446 |
| 30 | 155.440 | 108.808 | 113.990 | 119.171 | 124.352 | 129.534 | 134.715 | 139.896 | 145.078 | 150.259 |
| 40 | 207.254 | 160.622 | 165.803 | 170.984 | 176.166 | 181.347 | 186.528 | 191.710 | 196.891 | 202.073 |
| | 259.067 | 212.435 | 217.617 | 222.798 | 227.979 | 233.161 | 238.342 | 243.523 | 248.705 | 253.886 |
| 50 | 259.067 | 264.249 | 269.430 | 274.611 | 279.793 | 284.974 | 290.155 | 295.337 | 300.518 | 305.699 |
| 60 | 310.881 | 316.062 | 321.244 | 326.425 | 331.606 | 336.788 | 341.969 | 347.150 | 352.332 | 357.513 |
| 70 | 362.694 | 367.876 | 373.057 | 378.238 | 383.420 | 388.601 | 393.782 | 398.964 | 404.145 | 409.326 |
| 80 | 414.508 | 419.689 | 424.870 | 430.052 | 435.233 | 440.414 | 445.596 | 450.777 | 455.959 | 461.140 |
| 90 | 466.321 | 471.503 | 476.684 | 481.865 | 487.047 | 492.228 | 497.409 | 502.591 | 507.772 | 512.953 |

WEIGHT CONVERSION TABLES.—The following tables are used in the same manner as those for converting foreign money. Equivalents of quantities expressed by two figures are obtained by finding the tens in the left-hand margin and the units in the top margin, the equivalent being at the intersection of the two columns.

KILOS CONVERTED TO POUNDS

| Kilos | 0 | 1 | 2 | 3 | 4 |
|-------|----------|----------|----------|----------|----------|
| | | 2.2046 | 4.4092 | 6.6139 | 8.8185 |
| 10 | 22.0462 | 24.2508 | 26.4555 | 28.6601 | 30.8647 |
| 20 | 44.0924 | 46.2971 | 48.5017 | 50.7063 | 52.9109 |
| 30 | 66.1387 | 68.3433 | 70.5479 | 72.7525 | 74.9572 |
| 40 | 88.1849 | 90.3895 | 92.5941 | 94.7988 | 97.0034 |
| 50 | 110.2311 | 112.4357 | 114.6404 | 116.8450 | 119.0496 |
| 60 | 132.2773 | 134.4820 | 136.6866 | 138.8912 | 141.0958 |
| 70 | 154.3236 | 156.5282 | 158.7328 | 160.9374 | 163.1421 |
| 80 | 176.3698 | 178.5744 | 180.7790 | 182.9837 | 185.1883 |
| 90 | 198.4160 | 200.6206 | 202.8253 | 205.0299 | 207.2345 |
| Kilos | 5 | 6 | 7 | 8 | 9 |
| | 11.0231 | 13.2277 | 15.4324 | 17.6370 | 19.8416 |
| 10 | 33.0693 | 35.2740 | 37.4786 | 39.6832 | 41.8878 |
| 20 | 55.1156 | 57.3202 | 59.5248 | 61.7294 | 63.9340 |
| 30 | 77.1618 | 79.3664 | 81.5710 | 83.7756 | 85.9803 |
| 40 | 99.2080 | 101.4126 | 103.6172 | 105.8219 | 108.0265 |
| 50 | 121.2542 | 123.4589 | 125.6635 | 127.8681 | 130.0727 |
| 60 | 143.3005 | 145.5051 | 147.7097 | 149.9143 | 152.1189 |
| 70 | 165.3467 | 167.5513 | 169.7559 | 171.9605 | 174.1652 |
| 80 | 187.3929 | 189.5975 | 191.8021 | 194.0068 | 196.2114 |
| 90 | 209.4391 | 211.6437 | 213.8484 | 216.0530 | 218.2576 |

POUNDS CONVERTED TO KILOS

| Pounds | 0 | 1 | 2 | 3 | 4 |
|--------|----------|----------|----------|----------|----------|
| 10 | 4.53592 | 0.45459 | 0.90718 | 1.36078 | 1.81437 |
| 20 | 9.07185 | 4.98952 | 5.44311 | 5.89670 | 6.350299 |
| 30 | 13.70777 | 9.52544 | 9.97903 | 10.43263 | 10.88622 |
| 40 | 18.14370 | 14.06137 | 14.51496 | 14.96855 | 15.42214 |
| 50 | 22.67962 | 18.59729 | 19.05088 | 19.50447 | 19.95907 |
| 60 | 27.21555 | 23.13321 | 23.58681 | 24.04040 | 24.49399 |
| 70 | 31.75147 | 27.66914 | 28.12273 | 28.57632 | 29.02992 |
| 80 | 36.28739 | 32.20506 | 32.65865 | 33.11225 | 33.56584 |
| 90 | 40.82332 | 36.74099 | 37.19458 | 37.64817 | 38.10176 |
| | | 41.27691 | 41.73050 | 42.18410 | 42.63769 |
| Pounds | 5 | 6 | 7 | 8 | 9 |
| 10 | 2.26796 | 2.72155 | 3.17515 | 3.62874 | 4.08233 |
| 20 | 6.80380 | 7.25748 | 7.71107 | 8.16466 | 8.61826 |
| 30 | 11.33961 | 11.79340 | 12.24700 | 12.70059 | 13.15418 |
| 40 | 15.87573 | 16.32933 | 16.78292 | 17.23651 | 17.69010 |
| 50 | 20.41166 | 20.86525 | 21.31884 | 21.77244 | 22.22603 |
| 60 | 24.94758 | 25.40118 | 25.85477 | 26.30836 | 26.76195 |
| 70 | 29.48351 | 29.93710 | 30.39069 | 30.84429 | 31.29788 |
| 80 | 34.01943 | 34.47302 | 34.92662 | 35.38021 | 35.83380 |
| 90 | 38.55536 | 38.00895 | 39.46254 | 39.91613 | 40.36972 |
| | 43.09128 | 43.54487 | 43.99847 | 44.45206 | 44.90565 |

ILLUSTRATIONS.—To ascertain the number of pounds in 84,235 kilos:

Find the number of pounds in 84 kilos and multiply by 1,000, which gives185,188.3000 lbs.

Then find the number of pounds in 23 kilos and multiply by 10, which gives 507.0630 lbs.

Then find the number of pounds in 5 kilos, which is..... 11.0231 lbs.

Adding the several results gives185,706.3861 lbs. or 185,706 pounds, the desired equivalent.

Again, to ascertain the number of kilos in 9,654 pounds:

Find the number of kilos in 96 pounds and multiply by 100, which gives4,354.48700

Then find the number of kilos in 54 pounds, which is..... 24.49399 kilos
4,378.98099 kilos

or 4,379 kilos, the desired equivalent.

Chapter XXII

SHIPPING PAPERS

SHIPPING PROCEDURE.—When shipping to foreign destinations, the following general procedure must be strictly observed:

1. Firm reservation of cargo space must be made in advance.
2. Then a Shipper's Export Declaration must be prepared and attested.
3. A Shipping Permit must be obtained from the steamship company before freight is delivered to the pier. Sometimes steamship companies require that a copy of the export declaration be exhibited before issuing the permit.
4. The Dock Receipt, with the required number of copies, must then be prepared in the specified form.
5. In the meantime, Bills of Lading must be prepared in the specified form and number of copies.

VARIOUS FORMS.—When handling ocean traffic, in order to comply with the shipping requirements and revenue laws, various documents must be prepared by shippers. These documents are commonly called "Shipping Papers," and a description of each form is as follows:

SHIPPING PERMIT.—(*See Form No. 32 of Red Book*)—When cargo space has been engaged for a foreign shipment the steamship company issues a shipping permit to the shipper or his agent. This document contains instructions to the receiving clerk at the specified pier to receive within a stated period the quantities of freight briefly described therein. As a rule, freight

will not be accepted on steamship piers unless accompanied by the shipping permit. Deliveries of freight must be made in accordance with the terms of the permits. If, for any reason, it is found impossible to make delivery in the permit time, then new arrangements must be made and another permit secured.

The dock receipt, with the number of copies specified by the steamship company, should be attached to the permit for signature by the receiving clerk, when delivery of the shipment has been completed.

When the shipment is handled by lighter, or involves not more than a truck-load or less of packages, the permit is usually sent with the man in charge of the goods, who presents it at the time of delivery of the freight. If the permit covers a large shipment—that is, when involving several separate deliveries, then it is customary for the shipper to mail the permit to the receiving clerk on the pier, who places it on file and checks against it the goods as they are delivered.

Permits usually contain clauses which provide that the steamship company reserves the right to declare as void the quotation of freight rate under which the permit was issued if the value of the goods exceeds a certain amount—generally \$100 per package; that the steamship company may hold all or any part of the shipment for the next sailing of the same line; and that it disclaims liability for delays, damages, or defaults, arising from riots, strikes, or other disturbances. It also further specifies that the steamship company does not become responsible for goods until they actually have been loaded on the steamer.

DOCK RECEIPT.—(*See Form No. 33 of Red Book*).—When the export shipment is delivered to the steamer it must be accompanied by the dock receipt, prepared

on the steamship company's form in the required number of copies. The number of the packages, together with their individual weights and measurements, should be stated thereon.

When several deliveries are made by trucks against a single shipping permit, memorandum receipts are given to the truckmen, and when shipment is completed, they are exchanged for the dock receipt. The steamship companies generally require that dock receipts be made out in triplicate. The receiving clerk at the pier signs one copy as acknowledgement that the goods have been delivered to the steamship company, and this signed receipt must accompany the bills of lading when they are presented at the steamship company's office for signature.

SHIPPER'S EXPORT DECLARATION.—(See *Form No. 29 of Red Book*).—Before goods may be exported they must be cleared through the custom house at port of shipment. In order to do this, the shipper must prepare a special declaration of the merchandise and its value on the official form, which is described as the "Shipper's Export Declaration."

This declaration must be prepared for all shipments, whether of domestic or foreign origin, destined to foreign countries, except for shipments of foreign merchandise in transit through the United States from one foreign country to another. Among other requisite information, the following data must be included; viz., the name of the actual shipper; his address giving State, city, street and number; the name of the steamship line and the name of the vessel on which goods are to be forwarded; the marks and numbers of the packages; the total quantities and values of each kind of articles included in the shipment; the final port or country of destination.

These declarations are issued in duplicate and both must be signed by shipper or his authorized agent and the original verified by oath before a notary public or the appropriate customs official, if the shipments covered thereby are valued at more than \$100. The oath is not required on declarations covering shipments to Canada or Mexico by car, vehicle, or ferry, but the original declaration must be signed by the shipper. Declarations must be presented to the Collector of Customs, who will retain the original and certify the duplicate for presentation by shipper to the transportation company to be attached to outward vessel or car manifest.

SHIPMENTS FROM INTERIOR POINTS.—For shipments, consisting of two or more cars, from interior points on through export bills of lading (especially for shipments by rail to Canada or Mexico), a separate declaration should be furnished for each car in order to avoid possible delay at the border. For instance, if one or more cars, covered by one bill of lading and export declaration, should be detached from the train on account of accident or other cause and, consequently, arrive at the border at different times, or possibly be diverted to another port of exit, the cars thus delayed or diverted may be held up because of the lack of the required export declaration. Delays of this nature may, therefore, be avoided if a declaration accompanies each car.

For shipments from interior points on domestic bills of lading consigned to the seaboard for exportation, the shipper must prepare and deliver to the carrier the export declaration in duplicate to accompany the waybill to the seaport or it may be mailed to the consignee at the port of exportation.

DESCRIPTION OF ARTICLES.—Full and explicit instructions regarding the preparation of the export declara-

tion are printed on the reverse side. Description of articles must be accurate and complete. They must be described in accordance with the specifications of Schedule B which enumerates the statistical classification of exports. Every export shipper should have a copy of this Schedule, which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., Department of Commerce or from Collectors of Customs.

DRAWBACK.—When dutiable imported material is used in the manufacture or production of domestic merchandise which is exported, the Government allows the exporters a refund or “drawback” of the import duty less one per cent. The purpose of the drawback is to place the manufacturers in this country practically on a par with their foreign competitors, so far as the cost of the material goes. (See “Drawbacks” section of Red Book also Form Nos. 39, 41).

Among the many imported articles used by our manufacturers which are subject to drawback are included the following: iron and steel, glycerine, tobacco, drugs, oils, gums, paper, salt, sugar, and forest products. Drawback is also allowed on exported flavoring extracts, medicinal and toilet preparations, including perfumery, manufactured in the United States with the use of tax-paid alcohol, the drawback being equal to the tax on the alcohol used.

COLLECTION REQUIREMENTS.—All shipments are subject to drawback, whether they are exported direct by the manufacturer or through agents or commission merchants, or by purchasers of the goods. In order to collect drawback it is necessary that an application be addressed to the Secretary of the Treasury before the exportation of any of the articles, requesting that a regulation be promulgated authorizing the payment of drawback on commodities that are to be exported in

which duty-paid materials or domestic tax-paid alcohol have been consumed.

REGULATIONS.—As a prerequisite to the allowance of this drawback, the regulations require that the material must pass through some process of manufacture and that a notice of intent to export be filed with the Collector of Customs at the port of exportation at least *six hours before the goods are loaded* on the export vessel or *cross the border* into Canada or Mexico. The drawback broker or agent of the exporter at the port of exportation should be advised of all shipments subject to drawback at least one day before the shipments leave the factory or warehouse, in order that sufficient time may be afforded him to file the necessary notice of intent at the custom house.

Regulations covering the use of the drawback may be obtained free of charge from the Treasury Department, Washington, D. C.

REFUNDS.—While the United States refunds annually several million dollars as drawback to manufacturers, yet it is claimed that only limited advantage is taken of the provisions under our tariff laws, which permit a refund of 99 per cent of the duties paid on imported material entering into the manufacture of goods which are subsequently exported; and the articles on which drawback may be obtained are exceedingly numerous. It is not necessary that the manufacturer himself should be the importer of the material which he uses in the manufacture of his goods. This material may be imported by others, but in order to obtain the drawback the manufacturer in his claim must identify the imported material and specify the quantities of such material used and the amount of duties paid thereon.

CERTIFICATE OF ORIGIN.—(See *Form No. 37 of Red Book*).—Several countries provide in their tariff laws

for preferential duties on merchandise originating in certain countries with which they have special treaties whereby the most favorable rate of duty is imposed. The United States is one of these "most favored nations" and, in shipping from this country to the Argentine, France, Japan, Italy, Spain, and other countries, parties to such treaties, certificates of origin must be prepared by shipper or his agent and submitted to the consul of the country of destination for legalization, or visé.

PARCEL RECEIPT.—(See *Form 31 of Red Book*).—Any shipment which, according to the freight rate (weight or measurement), amounts to less than the minimum charge is assessed the full minimum, but many steamship companies offer facilities for shipping small packages, when the value does not exceed certain specified amounts, on a form called a "parcel receipt."

When shipping small packages on this receipt it is advisable to so mark the packages that they will be kept apart from the general cargo. It is also advisable to call the receiving clerk's attention to parcel receipt packages when delivering them at the pier.

PURPOSE AND BENEFIT OBTAINED.—The shipment of small packages of nominal value on parcel receipts for a cost considerably less than the "minimum" bill of lading charge is a privilege extended by the steamship companies to enable the export shipper to get his samples to prospective buyers abroad at slight expense. Upon arrival of a steamer, parcel receipt packages are delivered promptly to consignees, who thus have an opportunity of showing the samples of the goods to the buyers and thereby consummate the disposal of them during the time the freight itself is being unloaded and cleared through the custom house. These receipts, however, are at times used for small packages

of ordinary merchandise, but such shipments must be of small weight, dimensions, and value.

Parcel receipts were never intended to cover shipments of actual merchandise, consequently a limit of value has always been placed on goods so shipped. This limit varies from "no value" up to \$50, but the steamship companies invariably reserve the right to decline to issue parcel receipts. There are various reasons given for this action, but it is alleged that it is chiefly because of misrepresentations of value by shippers in order to get the shipment accepted on a parcel receipt.

CONSULAR INVOICES.—(*See Form 36 of Red Book*).—In shipping to most of the countries in South and Central America, Mexico, and some of the West Indian Islands, Consular Invoices must be prepared by shippers, furnishing information as to valuation, weights, and all the regular details of any invoice, which are used as a basis for the customary appraisal of the goods on arrival at destination. The information contained in these invoices is usually printed in the language of the country to which goods are destined and must be fully and accurately prepared. As a rule the invoice, with the required number of copies, is presented and sworn to by the shipper, or by his authorized representative, at the consulate of the country of destination in the port of shipment. The number of copies which are required in different countries varies from 2 to 8 and the forms are usually purchased from the respective consuls.

EXACTNESS ESSENTIAL.—The necessity of exactness in every detail in the preparation of consular invoices is of the utmost importance. Indefinite or incorrect statements are not tolerated, nor are corrections or insertions between the lines permitted. The least error on the part of shipper in preparing these documents may cause the imposition of heavy fines on the foreign

importer, which, of course, is bound to react against the shipper.

When transacting business with residents of countries requiring consular invoices, it is always advisable to request the customers to furnish well-defined instructions as to how the invoice should be prepared. And when the instructions are received, they should be followed to the letter, regardless of the advice of anyone in this country to the contrary, even though it be the consul himself who gives the advice.

CONSULAR FEES.—The charge for certification or legalization of consular invoices is sometimes a fixed amount but usually varies according to the amount of the invoice value.

BRITISH COLONY CERTIFICATES.—The British Colonies of Australia, New Zealand, South Africa, and Canada, in order to protect their markets, require from shippers certificates in which they must declare that the price shown in the invoice exhibits the current domestic value, at the date of the declaration, of identically similar goods when sold for home consumption in equal quantities in the ordinary course of business; that no different invoice has been or will be furnished to anyone, and that no rebate will be made by any means whatsoever.

BILLS OF LADING.—(*See Form Nos. 26, 55 of Red Book*).—The ocean carrier is not subject to the "Law of Common Carriers," and may therefore limit his liability on every possible point in his contract with the shipper. Each steamship company issues its own forms of the bill of lading.

PREPARATION OF BILLS OF LADING.—Bills of lading must be prepared by shipper on the blank forms supplied by the steamship company. It is usually necessary to make from three to eight copies of every ocean

bill of lading; the number depending upon how many copies are required by the exporter himself, how many by the steamship company, and how many by the consular authorities. It is customary to make three copies for signature by the steamship company, these being the negotiable copies and so marked on their face, which are returned to the shipper.

Ocean bills of lading are generally made out "to order" and most of the foreign lines require that shipments be so consigned. The usual practice is for shipper to endorse the negotiable bills of lading in blank on the back. Then all the negotiable copies, which are termed a "full set," together with the other essential documents—insurance certificate, invoices, drafts, and so forth—are delivered to a bank or other agent with specific instructions as to the conditions under which surrender of the bill of lading to the actual consignee is authorized. The reason why banks require the full set is because the possession of any one negotiable copy of the bill of lading is sufficient, when properly endorsed, to convey ownership of the goods; therefore the bank would have no security in the goods if a single negotiable copy was missing.

THE "NOTIFY" CLAUSE.—In order to permit delivering steamship agents to advise the actual consignee of the arrival of the goods, it is customary to write on the margin of the "order" bill of lading a clause "Notify (name and address of actual consignee.)" This notification clause does not give the consignee any rights over the goods until he is able to present the properly endorsed bill of lading, but this method of consignment facilitates delivery, as the steamship agent will notify consignee immediately upon arrival of goods.

MARKS ON BILLS OF LADING.—It is absolutely essential that the marks, numbers, and so forth, on packages, invoices, and bills of lading should be identical.

When a large number of packages, including a variety of merchandise, is shipped on one bill of lading, they may be listed on the back of the document.

RAILROAD BILLS OF LADING.—Railroad bills of lading covering less-than-carload shipments from interior points destined to foreign ports should always be marked "For Export," and when the bills of lading cover carload shipments they should be marked "For Export" and also noted "Lighterage Free." Shipments covered by bills of lading thus noted are usually consigned to brokers or representatives of shippers who attend to all the export formalities.

THROUGH EXPORT BILLS OF LADING.—(*See Form No. 25 of Red Book*).—Through Export Bills of Lading are issued by the railroads at many interior points to numerous foreign ports and to some inland points of destination in foreign countries.

By use of this bill of lading, the inland shipper is relieved of the immense amount of detail incident to making an export shipment.

Also, shipments are frequently consigned to an export port on a through bill of lading to point of foreign destination, care of an ocean steamship company. This method of consignment is often employed when the shipper desires to consolidate several shipments at a seaboard port, having made space reservation for a large tonnage; and the through bill of lading is then exchanged for a steamship bill of lading. In some instances, this manner of consignment is of material advantage to shippers, and men who are trained in the intricate details of exportation know how to obtain every possible advantage and privilege.

MINIMUM BILL OF LADING.—A Minimum Bill of Lading is issued by a steamship company for a small shipment, at an arbitrary rate varying from \$5 to \$10, when

the shipment is not of sufficient quantity or weight to warrant application of the current freight rate.

For ports not actually called at by the steamers of the lines, the minimum bill of lading is the sum of the minimum to the port where transshipment occurs and the minimum from that port to final destination.

The rates quoted by various transportation companies for *minimum bills of lading* are approximated only and are subject to change at the discretion of the companies, or through fluctuations in the rate of freight or exchange. Some steamship companies have no fixed minimum and the rates they quote are only as low as may be required to secure the shipment.

Chapter XXIII

MARINE INSURANCE

COLLATERAL READING: In the Freight Traffic Red Book—Marine Insurance; York-Antwerp Rules.

ANTIQUITY.—It is neither possible nor necessary for us to treat of marine insurance except in a general way. It is a highly technical subject, which would require a text book larger than this in order to give the student adequate information concerning it, and a specialist in marine insurance would have to write it. What we shall give, in this chapter, is such information as is needed by every export traffic man and every shipper of goods to foreign lands, so that they may *know* whether or not their shipments are actually covered in the insurance policy.

Marine insurance is said to have originated among the Lombard merchants in Italy and, according to records, was introduced into England by them early in the sixteenth century. Prior to that, however, in the era of the Roman Empire, the Roman law provided if it became necessary to throw the cargo or any portion thereof overboard in order to save the ship, the loss thus incurred should be borne *pro rata* by all concerned. This, of course, was not an insurance, but it was an equitable division of losses among those interested in the salvage of the ship and cargo.

Marine insurance, on a commercial basis, first appeared in Portugal and Flanders in the thirteenth century. The oldest legal document of record, relating to insurance, was issued by the magistrates of Barcelona in 1435 to regulate the business of marine insurance.

GENERAL COMMENT.—Marine Insurance is a contract, under which the insurance company, for a speci-

fied premium, agrees to indemnify the shipper or owner against loss or damage to property caused by a risk insured against.

The policy is the written contract between the parties and sets forth the obligations of each party. (See *Form Nos. 34, 35 of Red Book*). It recites the consideration paid the insurance company, the merchandise insured, the voyage or period of time for which the insurance is effective, the risks and perils against which the insurer agrees to indemnify the insured against loss or damage to said merchandise, the restrictions and limitations upon the liability of the insurance company for such loss or damage, and the conditions with which the insured must comply in case of claims.

NECESSITY FOR COMPETENT BROKER.—Very few shippers of export goods know whether a policy of marine insurance really *insures* the goods which it apparently protects—whether it insures *fully* or only *partially* against the loss that may occur to the freight directly or indirectly through assessment of “general average” upon the undamaged portion of a cargo. Not many shippers understand marine insurance sufficiently to know whether or not the insurance covers the goods beyond arrival of the ship in port.

Genuine brokerage services in insurance are similar to the services of legal counsel. They not only require thorough technical knowledge of marine laws and the practice of insurance companies, but also involve the conditions in particular countries.

The selection of a marine insurance broker is one of the important duties of an exporter. He should not depend upon his own knowledge of insurance, for a little knowledge of this subject is fraught with danger. The right kind of insurance is no more costly than the

wrong kind; hence the selection of a competent broker is essential. The following incident will demonstrate the importance of this particular feature:

A bright young man, employed by a large United States exporter, and possessing considerable knowledge of marine insurance, discovered that a shipment valued at over \$65,000, which was presumably insured fully against marine and war risks, was not covered properly and that the owner could have recovered nothing if damage had occurred at the most dangerous part of the transportation. The reason for this was that, at that time, goods shipped to South American ports were practically at full peril of owner a few hours after arrival in port. At the present time, however, by special arrangement, insurance against loss or damage after arrival can be had.

THE MARINE INSURANCE POLICY.—Every export shipment should be represented by four documents; namely, bill of lading, invoice, bill of exchange, and insurance policy or certificate, and it is of as much importance for the shipper to give careful consideration to the insurance document as to the other documents, for it is the insurance company that is expected to make good any loss or damage that may come to the shipment, and unless the policy or certificate so provides, and is properly made out, it is quite probable the purchaser will find it impossible to collect any claim for his loss, or that considerable difficulty will be found in doing so.

Marine insurance policies commonly include coverage against a number of risks other than perils of the sea, but are not "all risks" policies; that is, they do not insure against any and every loss or damage which the insured cargo may sustain while in transit. On the contrary, they specifically state the certain risks and perils against which insurance is furnished. They also usually contain limitations upon the liability of the

insurance company and prescribe the conditions with which the insured must comply in case of claim thereunder.

EXPLANATION OF CLAUSES.—While a clear understanding of the policy contract is desirable, yet we shall not attempt to mention all the special clauses inserted in the policy which restrict the liability of the insurance company; only the clauses in common use are explained.

ATTACHMENT OF INSURANCE.—The policy provides that the insurance applies immediately the cargo is loaded on the vessel. In modern commerce, however, it is customary for the insurance to be arranged to apply from the time the cargo is in the hands of the common carrier.

CARGO TO BE LADEN UNDER DECK.—The policy requires that the insured cargo be loaded under deck. Cargo stowed on deck is not insured unless by special agreement. Ordinarily cargo stowed on deck is insured, *“Free from claim for loss by wet, breakage, leakage, or exposure.”*

THE INSURANCE IS AGAINST:

- (a) Loss or damage to the cargo insured.
- (b) General Average and Salvage charges payable by the cargo insured.
- (c) Sue and Labor expenses.

The loss or damage to the cargo must be directly caused by a peril insured. Loss of market or loss or damage caused by inherent vice of the cargo insured, through delay or prolongation of the voyage, even if the delay be occasioned by an insured peril, is not recoverable from insurers.

GENERAL AVERAGE.—A general average is a loss arising out of sacrifices made or extraordinary expenses incurred for the preservation of the ship or

cargo, in order to save the ship or as much of the cargo as possible, and is for the benefit of all interests. The loss or general average charges are apportioned pro rata against the vessel, its freight earnings, and the value of the cargo. The amount thus apportioned against each shipment is collected from the insurance company, or else a bond is furnished guaranteeing the payment of the charges.

General average is a voluntary and intentional sacrifice to protect the common good of all. A sacrifice to protect the ship alone, or the cargo alone, is not covered by general average. It is the opposite of an accidental loss caused by perils of the sea.

Damage done by water voluntarily used in an effort to extinguish fire on shipboard is a general average. The entire damage to any package which has actually been on fire, however, is treated as particular average. Some of the losses which are admitted as general average are as follows:

Loss of cargo and the freight charges thereon, when thrown overboard; damage to cargo by water used to extinguish a fire on board, provided the fire did not occur through the cargo itself getting on fire; wages and provisions of the master and crew during detention at a port of refuge and expenses there incurred; cost of voyage of ship and cargo, when ship becomes disabled and is picked up at sea.

PARTICULAR AVERAGE.—Particular average differs from general average in that it refers to partial loss on an individual shipment from one of the perils insured against, irrespective of the condition of the balance of the cargo. Particular average falls entirely upon the owner of the goods which suffered damage, instead of being contributed for by the owners of the balance of the cargo.

POLICY EXEMPTIONS IN RESPECT TO CLAIMS.—The policy does not protect against minor damages caused by a peril insured. The insurance company is not liable unless the loss or damage sustained by the cargo shall equal or exceed a specified percentage of the value. In certain trades some commodities are insured subject to an exemption of 5% on the shipment; other commodities 3% on the shipment; others 3% on each package; and on certain commodities in some trades, insurance against “all risks” may be had, irrespective of policy exemptions.

The term “With Average” (commonly referred to as W. A.) is a very elastic phrase, applicable to any one of the above mentioned exemptions and to the many variations thereof.

FREE OF PARTICULAR AVERAGE UNDER 3%.—If cargo be insured “F. P. A. under 3%” on the shipment and the whole or any part of the shipment is damaged by an insured peril to the extent of 3% or more of the sound value of the entire shipment, the insurance company agrees to pay the same percentage of the amount for which the damaged goods are insured, as the goods are depreciated by the damage. If the damage be less than 3% of the value of the entire shipment, the insurance company is not liable under the policy.

FREE OF PARTICULAR AVERAGE UNDER 3% ON EACH PACKAGE.—If the exemption be “F. P. A. under 3% on each package,” the damage caused by an insured peril must amount to 3% or more of the sound value of the package before the insurance company becomes liable. If the package be damaged 3% or more of its value, the company pays the same percentage of the insured value of the package as the damage bears to the sound value.

Example :

If a shipment consists of 10 cases, value \$500 each, total \$5,000, and is insured F. P. A. under 3% on the shipment, damage would have to amount to at least \$150 before any claim would be entertained. If the shipment is insured F. P. A. under 3% on each package, any damage to a case amounting to \$15 or more would be paid by the insurance company.

The purpose of these exemptions is to prevent an endless number of small claims, which would involve expensive adjustment without due return.

F. P. A. E. C. CLAUSE.—This means Free of Particular Average, English Conditions; that is, “warranted free from average *unless* general, or the ship be stranded, sunk, burnt, or in collision.”

If the vessel should be stranded, the insurer has to pay particular average without regard to percentage, and whether or not the damage is in any way attributable to the stranding.

The damage to the goods may have occurred prior to the stranding or after the stranding, and from an entirely different cause; but, providing the goods were on board at the time of stranding and the insurance was then in force, the damage is recoverable from the underwriters.

The insurer incurs the same obligations if the vessel is burnt, sunk, or in collision; but a vessel which might be on fire is not necessarily interpreted as burnt nor is a fire confined to cargo covered. The term “or in collision” has been interpreted by the courts as if it read “with another vessel,” unless otherwise modified in the contract.

F. P. A. A. C. CLAUSE.—This means Free of Particular Average, American Conditions; that is, “warranted free from particular average unless *caused* by stranding, sinking, burning, or in collision.” This clause is quite similar to the one discussed in the preceding paragraphs, and yet there is an important difference between them when they are explained. Under the English conditions a loss is covered whether due to the vessel becoming stranded, sunk, burnt, or in collision. The fact that it did incur one of these casualties is sufficient to warrant the adjustment of the insurance. Under the American conditions it is necessary to prove that the loss sustained was caused by the vessel being stranded, sunk, burnt, or in collision; and, if a vessel is stranded and some of the cargo is *stolen* after stranding, the loss will not be paid, although it is altogether probable the stealage would not have taken place if the vessel had not become stranded. Under the English conditions a similar loss would be paid.

PARTICULAR CHARGES.—Expenses incurred by or on behalf of the assured for the safety or preservation of the goods insured, other than general average or salvage charges, are called *particular charges*. These charges are not included either in general average or particular average. A clause covering these charges is inserted in all contracts of marine insurance issued in America and England, and is called the “sue and labor clause.” This clause grants permission to “sue, labor, and travel for, in and about the defense, safeguard, and recovery of the said goods and merchandise, or any part thereof, without prejudice to this insurance; nor shall the acts of the insured or insurers in recovering, saving, and preserving the property insured, in case of disaster, be considered a waiver or an acceptance or an abandonment; and to the charges whereof, the said assurers will contribute according to the rate and quantity of the sum herein insured.”

This clause, in brief, obligates the owner of goods to act as though uninsured. If the merchant endeavors conscientiously to safeguard his goods the underwriters cannot claim breach of contract for failure to fulfill the obligations imposed by this clause. The owner of a cargo of a vessel should remember that the "sue and labor clause" is binding, and failure to act in accordance therewith might void his contract of marine insurance. As soon as cognizant of a loss he should immediately take steps to avert or diminish the loss and see, as far as possible, that the rights of the underwriters are not in any respect jeopardized. With the modern means of rapid communication with all parts of the world, the owner of goods has no excuse for not giving prompt notification of possible loss or damage to underwriters.

RIVER PLATE CLAUSE.—The risk under this clause ceases upon arrival at any shed (transit or otherwise), store, custom house, or warehouse, or upon the expiration of 10 days subsequent to landing, whichever may first occur. The insertion of this clause is insisted on by most companies, particularly on policies to Brazil, Buenos Aires, and the River Plate, as owing to the large number of shore losses the insurance companies do not care to assume the risk. Whenever a policy contains this clause the consignee or banks should be advised to cover the goods with other insurance in case of lapse of original policy before delivery or acceptance of drafts.

LOSSES NOT COVERED.—Unless it is otherwise provided in the policy the insurer of a cargo is not liable for loss apparently caused by delay, although the delay might have been caused by a peril insured against as follows:

Ordinary wear and tear;

Ordinary leakage and breakage;

Inherent vice or nature of the goods, such as fruit or vegetables decaying, meat becoming putrid, flour heating by internal combustion, etc.

RIOTS, STRIKES, AND LOCKOUTS.—Damage caused by riots, strikes, or lockouts is excluded from the general marine coverage. If it is desired to cover against these perils the policy must be so endorsed.

THEFT AND PILFERING.—Shipments are also subject to theft or pilfering, either before or after loading, while on board steamer, in warehouse, or in transit to the interior. Insurance to cover such risks is usually obtained, especially in the case of valuable merchandise.

The term "theft" is generally construed to mean the stealing of a *package*. A theft of a *portion* of the contents of a package is called pilfering. Both of these risks should be covered in the policy.

SAFELY LANDED.—When goods are insured "until they are safely landed," they must be landed in the customary manner and within a reasonable time after arrival at the port of discharge. If they are not so landed the risk ceases.

OPEN POLICIES.—(*See Form No. 35 of Red Book*).—Most of the cargo insurance written for regular exporters is under what is known as an "open policy," which is a contract between the insurance company and the shipper by which the insurance company binds itself to protect by insurance, in accordance with the policy conditions, all shipments made by the assured. These policies include in their terms all the various contingencies against which protection is desired; namely, pilfering, leakage, breakage, short deliveries, from warehouse to warehouse, fire risks, and so forth. "Warehouse to warehouse" means that the insurance automatically becomes effective from the moment the shipment leaves the factory, store, or warehouse at

initial shipping point in the interior or at the seaboard, and remains in force continuously until delivered at factory, store, or warehouse at destination.

Policies of this nature reading "from warehouse at point of origin to warehouse of consignee at final destination" also include the words "in due course of transit." These words are not inadvertently inserted; they have meaning of importance, and the policy must be construed as protecting goods only in their movement from warehouse to warehouse, provided said movement is accomplished within a reasonable time. Hence, shipper must keep a sharp eye on the vessel carrying his shipment and, if there is an unusual delay in transportation, arrangements should be made immediately with the insurance company to cover additional risks.

When open policies are issued the usual arrangements are that shippers report promptly each shipment to the insurance company, and at the end of each month adjustment of premiums are made in accordance with the schedule of rates attached to the policy. When a shipment is made, the shipper promptly notifies the insurance company of the protection, under his open policy, that is required for certain values covering the goods described and shipped by a specified vessel on a given date. The risk thus covered is endorsed on the open policy and a certificate of insurance, having all the force of an original policy, is returned to the shipper by the insurer.

CERTIFICATE OF INSURANCE.—(See *Form No. 34 of Red Book*).—The certificate of insurance issued to holders of open policies has always been considered as an acceptable document and as evidence that the shipment in question had been insured under the shipper's regular policy. Some time ago, however, a legal decision was rendered by an English Court of Justice that an

insurance "certificate" was not an acceptable document within the meaning of a contract calling for an insurance "policy." This decision created considerable discussion because of its bearing on all foreign trade and because of the danger that, if accepted as law, other countries might follow suit. Most all of the regular exporters have open policies which cover all shipments made by them to any port of the world, and they receive only the insurance certificate as evidence that the shipment in question has been insured. Prior to this decision, these certificates had always been accepted as sufficient evidence, and it would create considerable disturbance if it should become the general practice of foreign countries to require a separate policy for every shipment made. However, so far, England is the only country that does not regard the insurance certificate as an "acceptable document."

PERILS OF THE SEA.—The term "perils of the sea" refers only to unexpected accidents or casualties of the sea, such as heavy weather, stranding, sinking, collision striking the ground, rock or obstructions, and so forth

GENERAL CONSIDERATIONS COVERING CLAIMS.—As the insurance company contracts only to insure against loss or damage caused by the risks and perils named in the policy, and subject to the limitations, restrictions and conditions, likewise mentioned in the policy, it is manifest that to establish a claim against the insurer, the insured must show that the loss is one coming within the scope of the contract.

To do this, proof must be furnished:

1. That the loss was caused by a peril insured.
2. That the loss happened during the period insured.
3. To what extent the goods were damaged.

4. That the amount claimed correctly represents the liability of the insurance company under the terms of the insurance contract.

Such proof, usually in the nature of formal documents, is always required by the insurance companies before liability is accepted and payment of loss is made.

For example:

IN CASES OF TOTAL LOSS OF VESSEL AND CARGO:

1. Extended protest or a notarial certified copy of same.
2. Original invoices covering the goods shipped and lost.
3. All the negotiable bills of lading under which goods were shipped. If the cargo was consigned to a named consignee, the original set of bills of lading must be endorsed in blank by such consignee.
4. A letter from the Agents of the vessel at port of loading certifying that the entire shipment as described in the bills of lading was actually on board the vessel at the time of sailing.
5. The original and duplicate Certificates of Insurance (if issued) endorsed in blank by the payee.

NOTE.—A Protest is a formal document containing an attested declaration made by the master of a vessel upon his arrival in port after a disaster, showing that any damage or loss sustained was not owing to the fault of the vessel or his officers or crew.

IN CASE OF PARTICULAR AVERAGE:

Cargo Arriving in Damaged Condition:

1. Extended protest or a notarial certified copy of same or a verbatim abstract of the vessel's log book (properly certified) showing the circumstances and the cause of damage.

2. Original invoices covering the entire shipment or a certified copy of same.
3. One set of the bills of lading covering the shipment.
4. The Report of Survey on the damaged cargo, authenticated by an Underwriter's Agent.

NOTE.—*Statements from carriers, or their agents, certifying to the cargo being damaged or the nature of the damage, are not accepted by insurers as proper proofs.*

5. The original auction sales of any cargo sold at auction, authenticated by an Underwriter's Agent.
6. The original and duplicate Certificates of Insurance (if issued) endorsed by payee.

PRECAUTION—IMPORTANT.—In the event of loss or damage to the cargo, where the carrier cannot clearly show that the loss was directly caused by perils of the seas, fire, stranding, or collision, a claim for the loss should be immediately filed against the carrier who last had possession of the goods. The bills of lading usually require such notice to be given within a specified time after delivery is made. It has occasionally occurred that steamship companies have declined to pay legitimate claims because they were not filed within the time prescribed in the bill of lading. Therefore, when a shipment arrives in a damaged condition or there is found to be a loss, it is very important that the time specified in the bill of lading for notice and filing of claim be carefully observed.

HOW ADEQUATE INSURANCE IS DETERMINED.—To determine the amount of adequate marine insurance on a shipment, the procedure is as follows:

When the insurance is placed by the shipper the amount of the policy or certificate should cover the *cost* of goods placed on board vessel, including *all charges* up to that point, and the *ocean freight charges*. To this

amount should be added 10 *per cent* to cover other incidentals and profit. Odd dollars or fractional parts of a dollar should be excluded from the amount declared for insurance, which should be increased to the nearest \$50 above the figured amount. For example: If the amount were to reckon up to say \$6,968, the amount declared for insurance should be \$7,000.

Chapter XXIV

EXPORT AND IMPORT RAIL AND OCEAN RATES

COLLATERAL READING: In the Freight Traffic Red Book—
Export Traffic.

Section 1

Export and Import Rail Rates

DEFINITION.—Export and import rates are those which differ from the domestic rates between the same points, and which are restricted to apply on export and import traffic. These rates are actually proportional rates and are so considered by the Interstate Commerce Commission.

PURPOSE OF EXPORT AND IMPORT RATES.—On many export and import commodities, the rates between interior points and seaports are less than the rates on commodities of like kind shipped in domestic commerce. The numerous routes via which this traffic may be forwarded, the low rates of ocean transportation, and the competition of seaports are the principal conditions which tend to bring about this result.

The main, if not the only, reason for the existence or establishment of export and import rates lower than domestic rates is found in the desire of carriers to equalize via their ports conditions created by transportation conditions through other ports.

EQUALIZATION PROBLEM.—The problem of equalization of rates via the various Atlantic ports is very difficult and it has caused almost endless controversy because of the desire of the different seaports to obtain their relative shares of the ocean traffic. No satisfac-

tory solution of this problem has yet been attained and it is still far from being brought about with any degree of mutual satisfaction.

An example of this condition is found in traffic from the eastern part of the United States destined to the Far East. The ocean rates, by direct steamer between New York and Yokohama, are higher than the ocean rates between Seattle and Yokohama; but this difference is much less than the difference in the rates applying between, say Chicago and New York and the domestic rates applying between Chicago and Seattle. Therefore, in order to move the traffic via Seattle, it is necessary for the inland carriers to make lower rates than the domestic rates applying between Chicago and Seattle, and these rates are published as export and import rates.

ARE EXPORT AND IMPORT RATES JUSTIFIABLE?—There has long been considerable contention as to whether the making of export and import rates lower than domestic rates was not a discrimination against the United States exporters and importers.

The principle involved is that of the equity of charging higher rates on goods shipped from or to domestic points than are charged for goods of like kind over the same lines and for the same distance when they are exported or imported.

EXPORT RATES.—In order to stimulate export traffic, it is generally acknowledged not to be discriminatory or prejudicial to our interests to make export rates lower than the domestic rates. Furthermore, there is no questioning the fact that movement of export traffic at lower rates than the domestic rates contributes to the earnings of the railroads and thereby enables them to transport domestic traffic at lower rates than they otherwise might.

IMPORT RATES.—The making of import rates, from seaports to inland points in the United States, lower than the domestic rates is claimed to be based on the same principle as that used in making export rates. This principle may undoubtedly be equitably applied to imported goods that cannot be produced or manufactured in this country, but when applied to goods brought here for sale in competition with our own products, import rates lower than the domestic rates would not appear to be justifiable.

APPARENT DISCRIMINATION.—Several cases of apparent discrimination were presented to the Interstate Commerce Commission some time ago who rendered a decision to the effect that:

Many American manufacturers and dealers are the competitors of foreign manufacturers and dealers for supplying the wants of consumers in interior points in the United States, and that under domestic bills of lading they are entitled to require from American carriers like service as that given to foreign competitors. Furthermore, the Act to Regulate Commerce secures them this right, and to deprive them of it by any transportation device is a violation of the statute.

As an illustration of apparent discrimination, it was brought out in a case that the domestic rate on books, buttons, and so forth, from New Orleans to San Francisco, was \$2.88 per 100 pounds, while the total through charge on like articles from Liverpool to San Francisco via New Orleans was only \$1.07 per 100 pounds.

In another case, it developed that the rate on tin plate from Liverpool, by steamer to Philadelphia and thence by rail to Chicago, was only 24 cents per 100 pounds, while the domestic rate from Philadelphia to Chicago on this commodity was 26 cents per 100

pounds. For 2 cents per 100 pounds less than the domestic rate from Philadelphia to Chicago, this commodity was brought all the way from Liverpool and landed in Chicago.

In these cases, the Interstate Commerce Commission held that such discriminations were unlawful and two appellate courts sustained this decision, but finally, on appeal, the Supreme Court decided (three members, including the Chief Justice, dissenting) that the Interstate Commerce Act did not prohibit this practice.

PROTECTION BY TARIFF.—On most of the imported articles, duty is assessed in accordance with the tariff, and this duty is usually sufficient protection against foreign competition. Yet, there have been many instances of discrimination against American merchants in favor of their foreign competitors, which more than offset the supposed protection furnished by the tariff.

APPLICATION OF EXPORT AND IMPORT RATES.—The skeleton tables of Export, Import, and Domestic rates, shown on pages 279 and 280 are for the purpose of comparison.

If it were necessary to determine the rates applicable to the commodities shown in these tables to or from the points named, a competent traffic man would be able to select forthwith the proper tariffs and ascertain the correct rates.

In order to show the value of ability to select the right tariffs and quickly determine rates applicable, the compilation of these rate tables involved consulting:

1. **CENTRAL FREIGHT ASSOCIATION;**
Tariffs To Eastern Points—
 - (a) Class Rates,
 - (b) Commodity Rates,
 - (c) Export Commodity Rates.

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2. TRANSCONTINENTAL FREIGHT BUREAU;

Tariffs To Pacific Coast Points—

- (a) Class and Commodity Rates,
- (b) Export Commodity Rates,

Tariffs From Pacific Coast Points—

- (c) Class and Commodity Rates,
- (d) Import Commodity Rates.

3. TRUNK LINE TARIFF BUREAU;

Tariffs To Western Points—

- (a) Class Rates,
- (b) Commodity Rates,
- (c) Import Commodity Rates,
- (d) Class and Commodity Rates to St. Paul and Other Western Points.

4. CONSOLIDATED CLASSIFICATION.

The rates as shown in the tables are those that were in effect at the time of compilation and should not be considered as reflecting existing rates, because changes by supplements or new tariff issues are continually being made.

EXPLANATION OF RATES.—On examination of the rate tables it will be observed that the rates are for carload lots only. The minimum carload weight for most of the commodities named is higher when the export or import rate applies. The export and import rates, and some of the domestic rates, which are shown in these tables, are specific commodity rates; the other rates are the regular class rates.

EXPORT AND DOMESTIC RATES COMPARED
In Cents Per 100 Pounds

| FROM CHICAGO, ILL. | To New York | To Portland, Oregon | |
|--|------------------------|------------------------|----------|
| | Export and Domestic | Export | Domestic |
| Agricultural Implements, C. L. Min. Wt. 24,000 lbs..... | 56½ | ..... | 193 |
| Agricultural Implements, C. L. Min. Wt. 30,000 lbs..... | ..... | 100 | ..... |
| Automobiles—Passenger, C. L. Min. Wt. 10,000 lbs..... | 156 | 210 | 450 |
| Canned Corn, C. L. Min. Wt. 40,000 lbs..... | ..... | 120 | 130 |
| Canned Corn, C. L. Min. Wt. 36,000 lbs..... | 56½ | ..... | ..... |
| Machinery, C. L. Min. Wt. 24,000 lbs..... | 56½ | ..... | 193 |
| Machinery, C. L. Min. Wt. 36,000 lbs..... | ..... | 115 | ..... |
| Paint (kegs or barrels), C. L. Min. Wt. 40,000 lbs..... | ..... | 80 | 125 |
| Paint (kegs or barrels), C. L. Min. Wt. 36,000 lbs..... | 56½ | | |
| Tin Plate, C. L. Min. Wt. 36,000 lbs..... | 56½ | | |
| Tin Plate, C. L. Min. Wt. 80,000 lbs..... | | 72 | 150 |

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IMPORT AND DOMESTIC RATES COMPARED

IN CENTS PER 100 POUNDS

| Domestic To Chicago, Ill. | FROM New York, N. Y. | | FROM San Francisco, Cal. | |
|--|---|----------|-----------------------------|----------|
| | Import | Domestic | Import | Domestic |
| | Gunny Bagging, C. L. Min. Wt. 30,000 lbs.... | 48 | 52½ | |
| Gunny Bagging, C. L. Min. Wt. 50,000 lbs.... | ..... | ..... | 65 | ..... |
| Gunny Bagging, C. L. Min. Wt. 40,000 lbs.... | ..... | ..... | ..... | 128 |
| Licorice Root (bales), C.L. Min. Wt. 30,000 lbs.... | 52½ | 56½ | ..... | 408½ |
| Licorice Root (bales), C.L. Min. Wt. 50,000 lbs.... | ..... | ..... | 208½ | ..... |
| Graphite, C. L. Min. Wt. 60,000 lbs.... | ..... | ..... | 100 | 150 |

| To St. Paul, Minn. | FROM Philadelphia, Pa. | | FROM San Francisco, Cal. | |
|---|---------------------------|----------|-----------------------------|----------|
| | Import | Domestic | Import | Domestic |
| Gunny Bagging, C. L. Min. Wt. 30,000 lbs.... | 63½ | 70 | ..... | ..... |
| Gunny Bagging, C. L. Min. Wt. 40,000 lbs.... | ..... | ..... | ..... | 128 |
| Gunny Bagging, C. L. Min. Wt. 50,000 lbs.... | ..... | ..... | 65 | ..... |

Section 2

Ocean Freight Rates

VARIABILITY OF OCEAN RATES.—In domestic commerce, the freight rates of carriers, both by rail and water, are subject to strict regulation by the Interstate Commerce Commission and the United States Shipping Board, under the power accorded by the Interstate Commerce Act and the United States Shipping Act.

In ocean transportation there is no regulation of rates and continual fluctuations make it impossible to specify any standard rates. Most of the steamship companies quote rates on the basis of weight or measurement, ship's option; that is, the charges will be assessed per weight unit or per measurement unit at the optional rates, whichever will yield the steamer the greater revenue. It often occurs that one steamship line will quote a rate on goods on the basis of measurement while another line will quote a rate on goods of like kind on the basis of weight. It also frequently occurs that a steamship company, which has been assessing charges on certain commodities according to measurement basis, summarily reverses and applies charges on a weight basis. There are many reasons for occurrences of this kind, but competition is usually the primary cause, and the change is made in order to equalize rates. The steamship company has the right to quote rates on either basis and is not required to maintain its rates for any length of time, unless a contract has been arranged. A contract is the only way a shipper can protect himself against changes of rates.

WEIGHT AND MEASUREMENT STANDARDS.—As a rule, shipments weighing 56 pounds or more to the cubic foot will be charged for on the basis of weight. But there are few commodities that weigh as much as 56 pounds to the cubic foot, hence it follows that the ma-

jority of ocean freight rates are on a measurement basis.

While ocean freight is charged in various ways, the general rule is that heavy goods are charged by weight and light goods by measurement. The liability of the steamer is usually limited according to the rate paid; that is, on freight moving at regular rates, the limit of the steamship company's liability is generally fixed at \$100 per package. When a higher value is declared by shipper an additional rate, based upon the value of the articles, is charged and the liability of the company is thereby increased.

The foreign steamship lines operating from the Atlantic ports usually quote freight rates on the basis of 2,240 pounds or 40 cubic feet measurement to the ton. The Pacific Coast steamship lines usually quote rates per 100 pounds or per cubic foot, but business is also done on the basis of 2,000 pounds or 40 cubic feet measurement to the ton.

NECESSITY FOR CORRECT MEASUREMENT.—Disputes often arise between shippers and steamship companies in regard to the cubic measurement of packages. These disputes are at times due to careless measurement on the part of shipper, but generally they are due to the rules of the company for measuring, which require that packages shall be measured in a rectangular way. All irregularly shaped packages are, therefore, considered as rectangular and are figured by their gross dimensions.

The reason for this method of measurement is that packages of irregular shape are not readily stowed, and it may be difficult to find smaller packages to fill in the vacant spaces. When small packages are not available for this purpose "dunnage" or ship's lumber has to be used to keep the cargo from shifting.

HEAVY FREIGHT.—Unless otherwise stated, it is understood that freight rates quoted by steamship companies apply to packages not exceeding two tons weight. When packages exceed this weight the shipper must arrange to put them aboard the steamer at his own expense. Additional charges for handling these heavy packages are apt to be made at the port of destination or at transshipping points; therefore, shippers should be particular to ascertain exactly what the freight rate covers, when shipping heavy packages.

ILLUSTRATIVE TABLES OF OCEAN FREIGHT RATES.—The following tables will convey some understanding of ocean freight rates to the ports given. Their application will be more clearly grasped after studying the method of determining ocean transportation charges, as worked out on pages 284 to 286, inclusive.

OCEAN FREIGHT RATES, PER TON, FOR ATLANTIC COAST PORTS

| TO | General Cargo | Machinery | Agricultural Implements | Automobiles |
|----------------------|---------------|-----------|-------------------------|-------------|
| Bombay | \$21 | \$20 | \$21 | \$16 |
| Buenos Aires | 20 | 16 | 10 | 10 |
| Cape Town | 23 | 23 | 23 | 23 |
| Constantinople | 19 | 19 | 18 | 18 |
| Havre | 20 | 20 | 15 | 20 |
| Liverpool | 16 | 16 | 14 | 14 |
| Rio de Janeiro | 14 | 12 | 12 | 12 |
| Shanghai | 18 | 12 | 12 | 12 |
| Singapore | 18 | 12 | 12 | 12 |
| Sydney | 20 | 20 | 20 | 15 |
| Yokohama | 18 | 12 | 12 | 12 |

These rates are based on weight per ton of 2,240 lbs., or measure per 40 cubic feet, ship's option; that is, whichever will yield the greater revenue.

OCEAN FREIGHT RATES, PER TON, FOR PACIFIC COAST PORTS

| TO | General Cargo | Machinery | Agricultural Implements | Automobiles |
|-----------------|---------------|-----------|-------------------------|-------------|
| Manila | \$14 | \$9 | \$9 | \$8 |
| Shanghai | 14 | 9 | 9 | 8 |
| Singapore | 14 | 9 | 9 | 8 |
| Yokohama | 14 | 9 | 9 | 8 |

These rates are based on weight per ton of 2,000 lbs., or measure per 40 cubic feet, ship's option; that is, whichever will yield the greater revenue.

DETERMINING INLAND AND OCEAN TRANSPORTATION CHARGES.—As previously stated, ocean freight rates are usually quoted W/M, ship's option; meaning that freight will be assessed per weight unit or per measurement unit at the optional rates, whichever will yield the steamer the greater revenue.

The following illustrations show how to determine transportation costs for both export and import shipments:

I. EXPORT TRANSPORTATION COST.—In order to determine the lower transportation cost on a shipment of 336,000 pounds of Paint in barrels, measuring 6,486 cubic feet, from Chicago to Shanghai, China, charges are computed via New York and via Portland, Oregon.

The method of procedure is as follows:

Paint in barrels takes the General Cargo rate shown in the rate tables, page 283.

336,000 lbs. = 150 gross tons.

First, determine the charges via New York; then find the charges via Portland, and thus ascertain the lower transportation cost.

FREIGHT CHARGES VIA NEW YORK

From Chicago to New York:

336,000 lbs. @ 56½¢ per 100 lbs..... \$1,898.40

New York to Shanghai:

336,000 lbs. @ \$18 per gross ton..... 2,700.00

Total \$4,598.40

Freight charges, Chicago to New York.. \$1,898.40

New York to Shanghai:

6,486 cubic feet @ \$18 per 40 cu. ft... 2,918.70

Total \$4,817.10

FREIGHT CHARGES VIA PORTLAND

From Chicago to Portland:

336,000 lbs. @ 80¢ per 100 lbs..... \$2,688.00

Portland to Shanghai:

336,000 lbs. @ 70¢ per 100 lbs..... 2,352.00

Total \$5,040.00

Freight charges, Chicago to Portland... \$2,688.00

Portland to Shanghai:

6,486 cubic feet @ 35¢ per cu. ft..... 2,270.10

Total \$4,958.10

It will be observed that the charge for transportation of this shipment from Chicago to Shanghai is lower via New York and would be assessed on the basis of measurement—\$4,817.10.

Attention is called to a peculiar fact ascertained in determining this cost, and that is: if this shipment was forwarded by way of Portland the ocean charges would be assessed on the basis of weight, but moving via New York the ocean charges are computed on the basis of measurement.

2. **IMPORT TRANSPORTATION COST.**—In order to determine the lower transportation cost on a shipment of 40,000 pounds of Gunny Bagging measuring 1,560 cubic feet, from Yokohama, Japan, to St. Paul, Minn., charges are computed via Philadelphia and via San Francisco.

In this illustration we will assume that the ocean freight rates from Yokohama to United States ports are the same as those in effect *from* these ports to Yokohama, as given on page 283.

Gunny Bagging takes the General Cargo rates.

The method of procedure is as follows:

It will be immediately observed that the ocean charges will be assessed on the basis of measurement,

because this measurement is considerably in excess of one cubic foot to 56 pounds, so the ocean freight will be computed on measurement basis only.

FREIGHT CHARGES VIA PHILADELPHIA

From Yokohama to Philadelphia:

1,560 cubic feet @ \$18 per 40 cu. ft... \$702.00

Philadelphia to St. Paul:

40,000 lbs. @ 63½¢ per 100 lbs..... 254.00

Total \$956.00

FREIGHT CHARGES VIA SAN FRANCISCO

From Yokohama to San Francisco:

1,560 cubic feet @ 35¢ per cu. ft.... \$546.00

San Francisco to St. Paul:

40,000 lbs. as 50,000 lbs. @ 65¢ per

100 lbs. 325.00

Total \$871.00

It will be observed that the lower charge on this shipment is via San Francisco—\$871.00.

SALES TERMS GENERALLY USED.—Under the present method of transacting business, most sales of goods which are transported in foreign trade are made upon what are known as F. O. B. (free on board), C. & F. (cost and freight), or C. I. F. (cost, insurance and freight) terms. A single word added to these terms will prevent any misunderstanding; a C. I. F. contract should read “C. I. F. Havre,” or other destination. In this country, the term F. O. B. is used rather carelessly and often quotations are made “F. O. B. factory” when the seller means “placed free on board cars.” (See “*Foreign Trade Definitions*” section of *Red Book*).

In export trade, the meaning of the term F. O. B. should always be explicitly stated; that is to say, either F. O. B. cars at point of shipment or F. O. B. vessel,

whichever delivery is called for in the contract. There is an important distinction between F. O. B. vessel and F. A. S. (free along side) vessel. The latter term means that cost of hoisting goods into vessel where weight of goods is too great for ship's tackle must be paid by the buyer.

The term C. I. F. does not include foreign import duty, fees for consular invoices, or any other item whatsoever, except those specifically included; namely, *cost, insurance, and freight.*

The *cost* means the price of the goods F. O. B. vessel, including all charges up to that point; viz., the initial cost at factory with railroad freight charges; perchance storage; trucking or lighterage; and hoisting charges, if any.

The *insurance* covers the charge for premium on a marine insurance policy suitable for proper coverage of the shipment.

The *freight* covers the vessel's charges for transportation to port of destination, which in many instances, however, is not the final destination of shipment. Foreign inland transportation charges are rarely included in a C. I. F. quotation.

The term C. & F. has the same meaning as C. I. F., except that the insurance is not placed by the shipper.

Chapter XXV

IMPORT TRAFFIC—FOREIGN FORWARDERS

COLLATERAL READING: In the Freight Traffic Red Book—
Import Traffic.

Section 1

Import Traffic

METHOD OF HANDLING.—In considering the matter of import traffic it should be kept in mind that this traffic consists in the handling of many different commodities, very few of which are handled in the same manner. Furthermore, the method of handling import freight at different ports varies to a considerable extent. Therefore, it is possible to treat of only the most general features applicable to this subject, so in this chapter we will dwell on the most important points.

CLASSES OF IMPORTS.—Generally speaking, there are two classes of imports; namely, raw materials and wholly or partly manufactured goods. Raw materials are usually imported in bulk, for the most part in shiploads, and consist of such commodities as nitrate from Chile, coffee from Brazil, sugar from Cuba, cotton from Egypt, beans and tobacco from China, and various other commodities too numerous to mention.

Wholly or partly manufactured goods are shipped in various kinds of packages. They are commonly termed package cargo and are rarely forwarded in shiploads.

PLACING IMPORT ORDERS.—In purchasing from abroad, raw material is usually bought outright, while manufactured goods are either purchased outright or imported on consignment; which means that the manufacturer abroad consigns his goods to an agent in this

country, who endeavors to sell them for the account of the foreign exporter and does not render an account until after he has made the sale.

In placing orders for goods to be imported, three methods are usually pursued, as follows:

1. The larger importing houses and department stores find it to their advantage to send their buyers abroad, where they come in direct contact with the producers or manufacturers of the goods they seek.

2. Other importers place their orders with the foreign exporter's agent in this country, usually ordering against samples which the agent has on hand.

3. Another method is to order from samples, catalogs, or advertisement. This method, however, is not often satisfactory.

FIXING TERMS OF PAYMENT.—In purchasing foreign goods, the prices, terms, and discounts form an important item and, as the purchaser is usually located at great distances from the sellers, it is essential that these points be definitely understood by both parties. The prices for the merchandise, while usually quoted in the currency of the country of production, are very often quoted in pounds sterling, or United States dollars. The importer, therefore, should have a fair working knowledge of foreign exchange, in order to determine whether it is to his advantage to buy goods in foreign currency or in American currency.

When purchases are made in foreign currency, it is customary for the importer to protect himself against fluctuation in exchange by purchasing the amount of exchange required to finance his orders, or by purchasing futures in exchange, which means that he places an order with a banking house for future delivery of the amount of exchange required either at a flat rate or on a sliding scale.

When agreeing on terms, the purchaser should be sure that they are thoroughly understood by him. For instance, abroad, F. O. B. generally means, "Free on Board ship at port of departure." To avoid misunderstanding, it is necessary to use a more specific term, as "F. O. B. ship at seaport."

Foreign shippers frequently sell their goods "C. I. F. New York" or other American port. As before mentioned, this term means that shippers will pay for all inland and ocean freight charges up to the port specified and also cover the shipment with suitable insurance. The French abbreviation for this term is "C. A. F.," meaning Cost, Assurance, and Freight—*assurance* being the French word for *insurance*.

Two other terms not very often used are "C. I. F. & E." and "C. I. F. C. I." The first means that in addition to the cost, insurance, and freight, the shipper assumes the cost of *Exchange*. The second term is the basis of price plus *Collecting* charges and *Interest* and is used to indicate that the collecting charges as well as interest on the draft are assumed by the shipper.

It must be remembered that none of these terms includes the American customs duty or the transportation cost from seaport to the purchaser's place of business. These charges must be paid by the buyer.

FINANCING IMPORT SHIPMENTS.—There are several methods of financing import shipments and the importer cannot do better than consult his banker regarding the method which best suits his particular business. Where the shipper requires prompt payment, the usual method is to finance the transaction through a Commercial Letter of Credit; but if the purchaser and seller are well-known to each other, the transaction may be financed by sight bill of exchange. This is the usual method of financing imports from Europe, while from

the Orient, or South America, imports are usually financed through letters of credit.

Where the financing is done by sight bill of exchange, the importer on receipt of his documents, or at the end of thirty, sixty, or ninety days, according to the terms, purchases from a bank doing a foreign exchange business a sight draft (*See Form No. 42 of Red Book*), which is nothing more or less than a check on a banker abroad, and sends it to the seller. These sight drafts are usually issued in duplicate and are forwarded on separate steamers so that should one become lost, the other can be negotiated through the bank.

LETTERS OF CREDIT. (*See Form Nos. 43, 44 of Red Book*).—Where the shipment is to be financed through a letter of credit the importer arranges with his bank to have the bank draw a letter of credit, which is merely a letter from his bank to one of its correspondents abroad authorizing the correspondent to pay, for its account, to the seller against complete documents covering the value of the goods shipped. The letter of credit specifies in detail the time of delivery, the class of goods, the amount that must be paid, what documents must accompany the seller's drafts, also whether or not goods are to be insured by the seller, and such other information as is necessary to guide the foreign bank in making correct and proper payment. This letter of credit is sent by the importer to the shipper abroad, who, when shipment is ready for delivery, presents the letter of credit, together with his draft and the necessary documents including invoice, to the foreign bank. The bank takes his documents, pays him for the shipment, and enters the amount of the payment on the letter of credit. The foreign bank charges its correspondent bank in America with the amount paid the shipper and sends all documents to it. The American bank, in turn, charges the amount of the draft plus in-

terest to the importer and turns all documents over to him, so that he can obtain the shipment on its arrival. This is the fundamental principle on which a letter of credit is arranged. But there are many variations to meet different requirements; such as, "revocable" and "irrevocable" letters of credit, and letters containing features to cover the kinds of currency in which payment is to be made, and so forth.

IMPORT DOCUMENTS.—Before a shipment leaves a foreign country, a consular invoice (*See Form No. 40 of Red Book*) must be made out in triplicate or quadruplicate and sworn to before the American consul nearest to the point where the goods are assembled for export. There are two forms of consular invoices; one for goods purchased outright, the other for goods sent on consignment. The consular invoice must be made out on a standard form and the fee for the consul's visé is \$2.50. Should a shipment arrive at an American port and for some cause the purchaser has not received the consular invoice, arrangements may be made with the customs authorities for the filing of an indemnity bond and thus obtain the release of the merchandise pending the receipt of the consular invoice from abroad.

The consular invoice must show all prices and terms and must fully comply with the Government regulations regarding the various kinds of information required by the customs authorities; such as, the date of the order, a description of the merchandise, the marks or symbols of the maker, the difference between the prices shown in the invoice and the wholesale home market value, if the goods are subject to a consumption tax at home, and the kind of currency in which payable.

CUSTOMS ENTRY.—Most of our imported articles are subject to duty assessed by the Government at various rates. Therefore, on arrival of goods, the importer

must make customs entry and pay duties, but it is advisable that he engage the services of a competent broker who will attend to all customs formalities for him. It is absolutely essential that the customs work be done by one who has an intimate knowledge of customs regulations, customs duties, and the classification of merchandise; for, unless the proper classification is used, erroneous amounts of duties may be paid or fines imposed, thereby increasing the cost of the goods to the importer.

Customs duties, as provided for in the Tariff, are of two kinds: *ad valorem*, which means that the duty is based on a percentage of the value of the imported merchandise; *specific*, which means that duties are specified as at so much per unit of weight or measure.

There are three kinds of customs entries made for imported goods, as follows:

1. C. E. (Consumption Entry), when duty is paid and delivery taken at port of arrival.

2. I. T. (Immediate Transportation), when goods are to be forwarded "in bond" to an inland port of entry and duty paid there.

3. T. & E. (Transportation and Exportation), when goods arrive at a port of entry and pass through this country en route to a point in some other country.

APPRAISER'S STORES.—Appraiser's Stores are established by the Government at seaports and inland ports of entry and, on arrival of each import shipment, the customs official designates one or more packages from each shipment, which are taken to these stores for the purpose of examination. The importer furnishes bond that he will not dispose of the balance of the consignment until the portion taken to the appraiser's stores has been released.

FREIGHT IN BOND.—The term “in bond” means that goods so shipped are under the control and ownership of the Government until duty has been paid.

When a shipment arrives at a port in this country destined for some other port of entry to which it is to be forwarded “in bond,” the customs officer at the port of arrival gives each shipment so destined an I. T. number for the purpose of identification. This I. T. number is noted on the shipping documents and, therefore, when clearance is made at the port of entry where delivery is taken the I. T. number must be given at the custom house.

As a rule the import tariffs of the railroads provide that the rates published therein include the cost of making I. T. and T. & E. entries when such entries are made by an authorized representative of the rail carriers handling the freight.

Shipments forwarded “in bond” are loaded in cars at port of arrival and the cars are sealed with customs seals which must not be broken except by the customs inspector at the port where entry is made. This action is to prevent anyone tampering with the goods while they are in the custody of the Government.

FREE TIME.—On the arrival of a steamer, and after it reports to the Collector of Customs, the importer is allowed 48 hours in which to make customs entry and file with the customs inspector the permit authorizing delivery. When “in bond” shipments are transported overland by rail to a port of entry the importer is allowed 48 hours, excluding date of arrival, Sundays, and legal holidays, to attend to the customs details and take delivery.

If permits are not filed with the inspector in charge before the termination of this period, the inspector usually orders the goods into “General Order.” This

means that the goods are transferred to a bonded warehouse and stored therein at expense and risk of owner until "entry" has been made.

"Bonded" warehouses are the warehouses which have filed satisfactory bonds with the United States Treasury Department as sureties that the "in bond" merchandise stored therein will not be released except upon an order from the Collector of Customs.

At times the storing of goods in bonded warehouses is quite advantageous to importers. Entire lots may be held therein for later payment of duties and may be withdrawn from time to time in part lots, or the entire consignment may be withdrawn at the convenience of the importer. But when goods are withdrawn, either in whole or in part, the duty must be paid at time of withdrawal.

To secure this privilege, on arrival of goods an "Entry for Warehouse" must be made, which is a much more simple and expeditious procedure than making a consumption entry.

FOREIGN FREIGHT FORWARDERS.—Many valuable facilities are offered by the foreign freight forwarders and merchants located at interior points who have no agents at our seaports often find the services of these forwarders extremely valuable in looking after both their export and import shipments.

THEIR FUNCTION.—Foreign freight forwarders certainly fill a distinct need in ocean traffic and they are, and should be, considered as specialists in foreign trade despatch as well as in development of trade, because of their constant contact with the ever-changing conditions. They must have extensive and exact knowledge in order to readily answer questions for shippers and importers both from a domestic as well as a foreign standpoint. They must be up to date on railroad

and express conditions, and must understand tariff interpretation and geographical conditions. For instance, if a shipper receives an order on which he must figure very closely, the freight forwarder must be able to tell him how he can best consign and route his shipment; the best port of call of steamer; whether to forward via the Gulf, Atlantic, or Pacific ports; and, from a service standpoint, the conditions at the respective ports; so that his shipment will be handled at the lowest possible cost.

LINES AND RATES.—The forwarders must be familiar with the conference lines and their agreements regarding commodity rates; they must be in a position to help shippers get rates reduced when foreign competition eats into their products in any country, and they are *expected* to force a way towards reducing rates to help overcome such competition. The forwarders are expected to give expert advice on credits, and to know how to protect their patrons so that their goods will be consigned in such a way as to meet the needs of credits. Without correct knowledge concerning these points trouble often occurs that might have been avoided; such, for example, as a shipment going forward “to collect” instead of having the documents discounted in this country. The banks are always ready to help, but this kind of trouble occurs before they can act to protect the shipper.

SHIPPING INSTRUCTIONS.—It is the custom of foreign freight forwarders to furnish the inland shippers, whom they represent, with printed forms for the purpose of enabling them to give explicit written instructions as to the exact manner they desire their shipments handled. The instructions contained in these forms are all important and show the method of consignment desired, the form of payment, the value of the goods, amount for which insurance is desired, marks, weight, measurement, and so forth. The prin-

principal purpose of shipping instructions of this nature is to relieve the forwarding agents from any liability which they otherwise might incur. However, the competent forwarding agent would immediately endeavor to rectify any error discovered in the instructions and would communicate with the shipper, explaining the error and advising the correction that should be made. Confirmation of the correction would be secured and the shipment would thus be handled correctly.

INSURANCE.—The forwarders generally undertake to protect shippers with marine insurance at the lowest expense or to give advice on insurance as will meet the needs of the commodity. A shipper, with the best possible intentions, may insure his goods and think that he has full protection, only to find in case of loss or damage that his claim is not valid. He simply did not understand the intricate conditions of marine insurance.

PACKING.—Proper packing is another requirement concerning which the forwarders have special knowledge. They are fully aware of the fact that packing makes or breaks a shipper in the eyes of the customer and, from a risk standpoint, governs largely the rates of the steamship lines; that is, when you have established a reputation with the steamship companies for forwarding securely packed cases, more favorable rates may be obtained than if your reputation were otherwise.

CONSULAR REGULATIONS.—The forwarders must keep posted, more or less, with the ever-changing consular regulations, in order to avoid the heavy fines which are often disastrous to export shipments where the margin of profit is small.

IMPORT FREIGHT. — In handling import freight through the custom house, the forwarders are expected to have the customs regulations and tariff of this country well digested, so as to be able to make entry of for-

eign goods at the lowest duty rate and to protect shipments from fines, storage charges, and the many other penalties that might be incurred. They must also understand how to act in case of overcharge in duty.

ADVANTAGES OFFERED.—The services of the foreign freight forwarder are practically indispensable to the inland shipper, in the combination of small shipments and in the requisite attention to consular invoices when they are required. The service which responsible forwarders render cannot be measured, as the scope of their work covers such a large field, but it is most appreciated by shippers located away from seaboard ports. Furthermore, merchants engaged in export and import business, even though located at the seaboard, cannot expect to keep in as intimate touch with the constantly changing conditions that come within the scope of forwarders, because of the great variety of commodities they handle.

Another advantage is that forwarders will sometimes send goods forward "freight collect" when the steamship companies themselves require prepayment. Under these circumstances the forwarding agents must prepay the steamship charges, but they invoice the charges forward to their correspondent abroad, who collects from consignees. The forwarding agents will also sometimes forward goods on C. O. D. terms, sending the shipper's invoice to their foreign correspondent; arrange for collection of the amount from consignee, plus all charges that may have been involved; and remit the proceeds to the shipper.

If the importer takes delivery of merchandise abroad, it is very important that he secure the services of a reliable forwarder in the country of exportation. The services of a forwarder are required to arrange for cargo space and insurance; to prepare and forward the shipping and (at times) financial documents; to

advance freight charges when necessary; and, in case of bulk shipments, to charter the vessel.

ROUTING.—The saving in time and money to the importer, effected by planning an economical routing, will repay the most careful consideration. After the ocean line has been selected, whenever there is a choice of railroad from the port of arrival, place the consignment with the rail line that has a terminal nearest to the pier where the steamer will unload, thus minimizing transfer charges. In determining the proper ocean service to use, the importer will have to depend greatly upon the forwarder abroad.

SELECTION OF A FORWARDING AGENT.—In selecting a forwarding agent for the purpose of handling their traffic, inland merchants should exercise caution and investigate the responsibility of the one to whom they entrust their business. While the services of a *reliable* forwarding agent are of great value to inland merchants, yet many opportunities are afforded for exploitation and inflation of charges; hence the necessity for caution. The selection of a reliable forwarding agent, however, is a guarantee of correct and prompt handling of both export and import shipments.

Chapter XXVI

A TRIP BY OCEAN FREIGHT

THE ITINERARY.—In this chapter we will describe the trip of three shipments of freight starting from different points in the United States; namely, Savannah, Ga., Detroit, Mich., and Cleveland, Ohio, and follow them on their journey to their final destination of Sao Paulo, Brazil, via Santos, giving the itinerary of each, together with an itemized statement of the cost.

THE START.—The three shipments were to meet at the port of New York and from thence travel together on the same steamer to Santos.

Shipment No. 1 began its journey at Savannah, Ga., and consisted of 20 barrels Rosin, total weight 5,600 pounds, aggregate measurement 150 cubic feet; the cost of transportation to New York was:

20 barrels @ \$1.25 per barrel...\$25.00

Shipment No. 2 began its journey at Detroit, Mich., and consisted of one boxed Automobile, measurement $15\frac{3}{3} \times 6\frac{5}{5} \times 6$ or 587 $\frac{2}{12}$ cubic feet, weight 5,941 pounds; the cost of transportation to New York was:

5,941 lbs. @ $166\frac{1}{2}\text{¢}$ per 100 lbs....\$98.92

Shipment No. 3 began its journey at Cleveland, Ohio, and consisted of 56 kegs Varnish, total weight 4,480 pounds, aggregate measurement 44 cubic feet; the cost of transportation to New York was:

4,480 lbs. @ 67¢ per 100 lbs....\$30.02

BILLS OF LADING.—The shipment from Savannah, Ga., traveled on a Savannah Line bill of lading; the shipment from Detroit traveled on a Pennsylvania Railroad bill of lading; and the shipment from Cleveland, Ohio, traveled on a New York Central Railroad

bill of lading. Each bill of lading contained a full description of the goods covered by it, and all the marks shown on the packages were also entered on the bills of lading. The words "For Export" were written on each bill of lading and each shipment was consigned in care of the forwarding agent at New York.

THE EXPORTER'S SERVICE.—It is a common occurrence for a foreign buyer to send an order to an American exporter for certain goods. When this order is received, the first step that is taken by the exporter is to ascertain where the goods can be bought at best terms. This is determined by a comparison of the prices, quality, and suitability of the goods offered by the various manufacturers of similar goods. While this is an important part of the exporter's work, it is aside from the question of transportation.

PLACING ORDERS.—In order that the best of connections might be made at the port of exportation on arrival and the expense of the trip reduced to a minimum, the foreign buyer sent his order to a well-known forwarder in New York, whom we will call John Smith.

Let us assume that the three shipments described are the result of Smith's investigation and that the order was placed in the cities named. The Automobile was purchased F. O. B. Detroit for \$2,700, the Varnish F. O. B. Cleveland for \$950, and the Rosin F. O. B. Savannah for \$200.

In a majority of cases the foreign client will expect all the goods which he placed on one order to reach him in one shipment; otherwise additional expense will be incurred, as a consular invoice would have to be prepared for each shipment, and many of the local expenses incidental to the discharge at destination and the passage through the custom house there would be duplicated. This necessity made it imperative that the

shipments from the three cities should arrive at New York at approximately the same time, and consideration was given to the fact that shipments from points farther inland would take longer than those from the cities closer to New York, so on Smith's advice these three shipments began their journey on different dates.

DUTY OF EXPORTER.—The forwarder must arrange positively to have the goods packed with extreme care so that they will withstand successfully the many handlings and rough treatment to which they are to be subjected. He must furnish the sellers with a shipping mark to be placed on each package comprising the shipment (the shipping mark furnished for the described shipments is V. R. in a square), which usually, as in this case, represents the initials of the foreign buyer. He must also arrange to have the dimensions of each package in feet and inches marked thereon, together with the gross and net weights in pounds and kilos. On shipments containing certain kinds of articles it is required that the legal weight be likewise marked on packages.

HOW SMITH TOOK CARE OF THE SHIPMENTS.—Before ordering these goods forward to New York, after the sellers had them ready for shipment, Smith ascertained that a steamer would be loading for Santos (the seaport to which all freight destined for Sao Paulo is sent) about the time the three shipments would arrive, provided they started as directed by him. On arrival at New York the New York Central Railroad, the Pennsylvania Railroad, and the Savannah Line sent notices of arrival to John Smith in whose care the shipments were consigned. The notices of arrival permitted five days, excluding day of arrival, Sundays, and legal holidays, for the removal of the goods covered thereby, provided that evidence in the form of the export vessel's permit was presented when taking delivery. The

calculations of Smith had been accurate and no misfortune was incurred, consequently the shipments from the three cities arrived well within the loading time of the steamer. If one or more of the shipments had not arrived in time, those that arrived would have to be placed in a storage warehouse and held there until the delayed shipments made their appearance; then it would have been necessary to make connection with a later steamer. A mishap of this kind would be certain to cause considerable additional expense and would give occasion for serious dissatisfaction on the part of the foreign buyer.

ROUTINE FOR THE OCEAN TRIP.—While the goods were in transit to New York, Smith obtained a permit from the agents of the steamship company authorizing the receiving clerk at the pier to accept the described shipments, deliverable within a fixed period, for a specified steamer. Smith then prepared an export declaration for the complete shipment. In it he gave the required information as to the character, description, and value of the goods and their destination. The accuracy of this document was attested by Smith before the proper official in the custom house. He then made out the dock receipt in triplicate as required by the steamship company, and in due course a truckman was instructed to pick up the shipments at the terminals of the railroads and steamship company. Armed with the permit, export declaration, and dock receipt mentioned, this truckman presented them to the receiving clerk on the pier of the Prince Line, which is one of the steamship lines operating between New York and the Brazilian ports, delivered the goods, and obtained the signed dock receipt. When this signed receipt was returned to Smith, he made out the ocean bill of lading with seven extra copies, consigning the shipment to his *Order*. The bill of lading had to agree with the receipt and contain all marks shown on the packages; also a mem-

orandum showing the actual value of shipment had to be attached to the bill of lading.

In compliance with Smith's instructions, each package constituting the three shipments was marked as shown below:

| | |
|---|------------------------------------|
| FOR EXPORT | DIMENSIONS (in feet and inches) |
| <div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> V R </div> | |
| SAO PAULO | |
| Via Santos | |
| Gross Weight (in pounds and kilos) | |
| Net Weight (in pounds and kilos) | |

Each package was also marked c/o John Smith,
20 X Street,
New York, N. Y.,
but prior to delivery to the Prince Line this mark was removed, as is customary.

Then, the signed dock receipt, together with six copies of the bill of lading, were delivered to the office of the Prince Line. This line presented one non-negotiable copy of the bill of lading to the consulate for certification, paying the fee of \$1.65. In due course Smith called at the steamship office, paid the freight charges and certification fee, and obtained three signed copies of the bill of lading, the other three copies being retained by the company.

In the meantime, in accordance with the consular regulations, Smith prepared the consular invoice, with three extra copies, and attested its accuracy, attaching thereto two signed copies of the commercial invoice.

The consular invoice had to be prepared on the Brazilian form and it was filled out in the Portuguese language. It could have been filled out in English, but then it would be necessary for the consignee to present to the Brazilian customs a translation into Portuguese by a public translator, who would probably describe the shipment in such a way as to secure the highest rate of duty which the tariff permits. In shipping to Brazil, it is the usual custom of forwarders to fill out consular invoices in Portuguese, as it enables them to describe the goods exactly as the custom house tariff provides in each case and thereby insure the application of the lawful rate of duty.

The consular invoice, with the three extra copies and the two copies of the commercial invoice, were then sent by Smith to the Brazilian Consul for visé. The consul retained three copies of the consular invoice and one copy of the commercial invoice. After placing his official stamp on the original commercial invoice he attached it securely to the original consular invoice and returned them to Smith on payment of the consular fee.

The Brazilian consul fees are as follows: Visé of consular invoice, \$2.00, for shipments of declared value up to 200 pounds sterling; for each additional £100 or fraction thereof, 55 cents; certification of bill of lading, \$1.65 (paid by the steamship company). The fee for the consular invoice is calculated on the invoice value of the merchandise as declared, exclusive of freight and other shipping expenses.

But on the back of the consular invoice it is required to show the total value of the shipment, including the freight and other expenses from the port of shipment,

in British pounds, shillings and pence, at the current rate of exchange. This does not affect the actual declaration of value on the face of the invoice.

While the before mentioned steps were being taken the shipment had been reported to the insurance company under Smith's open policy, and a certificate was secured for a suitable amount, the rate on this shipment being one per cent. This certificate, along with the consular invoice to which the commercial invoice had been attached by the consul, and the full set of signed bills of lading, together with documentary draft drawn for the amount of invoice, including all expenses, payable at 90 days from date, were delivered by Smith to his bank in New York on the day before sailing of steamer. The bank forwarded these documents to its foreign correspondent, on the same steamer which carried the goods, to be delivered to the buyer against his acceptance of the draft. This steamer stops at the port of Rio de Janeiro, before proceeding to Santos, and lands the mail so that it may be sent overland to Sao Paulo. Consignee receives his memorandum copy of the bill of lading and undoubtedly the bank would notify him that it held the draft. The consignee calls at the bank, accepts the draft, receives the document, and goes to Santos for the purpose of clearing his goods. Unless these documents were available for presentation to the custom house in Santos immediately on arrival of the steamer, fines would be imposed.

ARRIVAL AT SANTOS.—When the steamer arrives in Santos the goods are discharged in the customs warehouse, and they are claimed there by the Sao Paulo importer. The shipments are inspected by the customs officials and the duties are assessed and paid. Then the shipments are loaded on railroad cars and carried to Sao Paulo where they finally reach their ultimate destination, from 20 to 30 days after they left New York and from two to three months after the

importer had mailed his order to Smith in New York.

This is the customary proceeding, and is based on things going through smoothly without any serious hitch. Of course, in many instances there arise complications which cannot be provided for in the regular routine and which must be taken up on their own merits.

While New York is used as the port for making the illustrated shipment, any other port would have entailed the same procedure.

CONVERSION OF WEIGHTS FROM POUNDS TO KILOS.—As the consular requirements for shipments to Brazil are that the gross and net weights of packages be shown in pounds and kilos, the following statement shows the total gross and net weights of the packages composing this shipment in pounds and kilos:

| | Gr. Wt. | Nt. Wt. |
|-------------------------|---------|---------|
| Automobile—Pounds | 5,941 | 4,365 |
| Kilos | 2,695 | 1,980 |
| Rosin———Pounds | 5,600 | 5,200 |
| Kilos | 2,540 | 2,359 |
| Varnish——Pounds | 4,480 | 3,920 |
| Kilos | 2,032 | 1,778 |

COST OF TRANSPORTING THE SHIPMENT.—Ocean freight charges are usually assessed on the basis of weight or measurement at th ship's option, whichever will yield the greater revenue. But some commodities, regardless of measurement, are taken on the weight basis, and at the time of this shipment Rosin was one of those commodities so taken. The ocean freight rates were \$10 per ton W/M on the Automobile, \$12 per gross ton on the Rosin, and \$14 per ton W/M on the Varnish. The freight charges on the Varnish would be computed on the weight basis and on the Automobile on the measurement basis because these bases yield the greater revenue.

On the total invoice value of the merchandise, \$3,850, the consular fee amounted to \$5.50, rate of exchange on date of payment being \$4.86, to which must be added \$1.65 for certification of bill of lading, making the aggregate consular charge \$7.15.

The amount reported by Smith to the insurance company for protection of this shipment was \$4,800, and the premium at the rate of one per cent came to \$48.

STATEMENT OF CHARGES

AUTOMOBILE:

| | |
|--|----------|
| Freight to New York..... | \$ 98.92 |
| Cartage to Steamer..... | 12.00 |
| Ocean freight, 587/2 cu. ft. @ \$10 per 40 cu. ft. | 146.79 |

ROSIN:

| | |
|---|----------|
| Freight to New York | \$ 25.00 |
| Cartage to steamer, 5,600 lbs. @ 15¢ per 100 lbs. | 8.40 |
| Ocean freight, 5,600 lbs. @ \$12 per gross ton | 30.00 |

VARNISH:

| | |
|---|----------|
| Freight to New York..... | \$ 30.02 |
| Cartage to steamer, 4,480 lbs. @ 15¢ per 100 lbs. | 6.72 |
| Ocean freight, 4,480 lbs. @ \$14 per gross ton | 28.00 |
| Consular Fees | \$ 7.15 |
| Marine Insurance | 48.00 |
| Services of John Smith..... | 92.00 |

| | |
|-------------------------|-------------------|
| Total | \$ 533.00 |
| Amount of Invoice | 3,850.00 |
| Amount of Draft | <u>\$4,383.00</u> |

To this expense would be added the duty assessed by the customs officials at Santos, and the railroad freight charges from Santos to Sao Paulo.