FREIGHT RATES

OFFICIAL CLASSIFICATION TERRITORY
AND EASTERN CANADA

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PREFACE

In offering this work to the public, the authors wish to state that it is designed with a view to setting forth the underlying principles and bases employed in constructing rates in the so-called Official Classification Territory. The rates used in the illustrations may be expected to change slightly from time to time, but this will not affect the general worth of the book, since the relationship of points is at all times preserved to some degree. The difficulties attending the preparation of a work in which specific rates are used can well be appreciated by men actually engaged in traffic work.

In preparing this treatise, the authors have availed themselves of the published bases for rate construction employed in Central Freight Association, Trunk Line Association, and New England Freight Association territories. In addition thereto, many railway officials and traffic experts have been consulted and information acquired through personal interviews and correspondence. The authors wish to express their appreciation of the assistance received from these sources.

The authors are under special obligation to Ralph E. Riley, of the LaSalle Extension University, for the assistance rendered in preparing the maps and diagrams and illustrations; to Asa Colton, of the same institution, who assisted in the preparation of the manuscript and offered many valuable suggestions; and also to Miss C. E. Brant for the assistance she rendered in preparing the manuscript for the printer, and in editing and revising proofs with such care that she corrected many inaccuracies that would otherwise have found their way into the text.

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CONTENTS

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INTRODUCTION

TERRITORIAL DESCRIPTION

In the treatise on *Freight Classification* it was stated that in many cases a specified classification governs beyond the boundaries of the territory bearing its name. Under the heading "Official Classification Boundaries and General Application" in the treatise on *Freight Classification* it was shown that in a number of cases the Official Classification governs beyond the boundaries of the territory shown as Official Classification Territory in the *Atlas of Railway Traffic Maps*.[1] To ascertain the general reason which causes the "overlap" of the Official Classification into adjoining territory, it will be well to note a few of the overlaps as disclosed in the following pages.

1. The competition between Canadian lines serving such cities as Montreal and Quebec, Que., St. Johns, N. B., and Halifax, N. S., and American lines serving North Atlantic Ports, from Portland, Me., to Newport News, Va., has compelled the carriers, in many cases, to use the Official Classification between points in eastern Canada and the United States.

2. On the south competitive conditions prevail where the Chesapeake & Ohio Railway and Norfolk and Western

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[1] See Map 1, *Atlas of Railway Traffic Maps.*

Railway (traversing Southern Territory) compete for traffic to and from the seaboard with the New York Central Lines, Pennsylvania Lines, Baltimore & Ohio System, and other northern routes. In order to compete on an equitable basis, the rate adjustments of the different roads must be built upon the same lines and must be subject to the same rules, regulations, and classification. Here again we find that the limits of the territory have been extended somewhat.

3. Similarly, on the west certain competitive elements exist. On the eastern shore of Lake Michigan, Grand Haven, Manistee, Ludington, etc., mark the termini of several eastern rail routes. In order to attract tonnage to their rails, they have extended the Chicago[2] rate basis to and from such west-bank ports as Milwaukee, Marinette, Manitowoc, and Kewanee, Wis. The traffic is transported across Lake Michigan either as cargo (break-bulk) freight or in cars on car-ferry boats.

4. Still again, Chicago, Ill., St. Louis, Mo., on the one hand, and Duluth and St. Paul, Minn., on the other, are rivals for rate supremacy in supplying the west and northwest with products that they require. As both Chicago and St. Louis have for years drawn their supplies from the east under rates of transportation governed by the Official Classification, it was perfectly natural that the northern lines radiating from Duluth and St. Paul throughout the north and northwest established routes over which rates were established governed by the Official Classification which minimized advantages possessed in this respect by the southern cities.

One word will suffice to explain the so-called over-lap of these territorial rate adjustments and that is "Competition." It may be the competition between carriers (such as that between the Chesapeake & Ohio Railway

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[2] Chicago is in 100% territory.

and the Baltimore & Ohio System), or between territories
(such as that between Canadian ports and ports in
this country), or between transportation routes (such
as that between the car-ferry routes across Lake Mich-
igan and the all-rail routes via Chicago and Chicago
Junctions), or between municipalities (such as that
between Chicago, Ill., and Duluth, Minn., on traffic
to or from the West). One or all of these phases
of competition may account for the extension of a certain
rate adjustment beyond the territorial limits proper.

Subdivision of Territory

Official Classification Territory is divided into three
rate territories, having associations as follows: (1)
the New England Freight Association,[3][6] which has juris-
diction over rates established or proposed on traffic
moving between points in the New England States; (2)
the Trunk Line Freight Association,[4][6] which has juris-
diction over rates on traffic moving between points in
Trunk Line Freight Association Territory; and (3) the
Central Freight Association,[5][7] which has jurisdiction
over rates on traffic moving between points in that part
of the middle-western states which is not under the juris-
diction of the Trunk Line Freight Association.

Freight Associations

These associations are composed of the principal roads
operating within or through the respective territories.
Like many associations, they are comprised of principal
and subordinate committees, the principal committee
usually being the executive committee, which directs the
general administrative affairs of the association.

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[3] L. H. Kentfield, Chairman, New Haven, Conn.
[4] C. C. McCain, Chairman, 143 Liberty St., New York, N. Y.
[5] Eugene Morris, Chairman, Transportation Bldg., Chicago, Ill.
[6] See Map 2, *Atlas of Railway Traffic Maps*.
[7] See Map 8, *Atlas of Railway Traffic Maps*.

The various business questions coming before the association are usually assigned to appropriate committees delegated to deal with such matters. The multiplicity of rate and traffic questions has necessitated the creation of many subordinate committees, such as the brick committee, the grain committee, the live stock and dressed meats committee, the import rate committee, the terminal and lighterage committee, etc.

The membership of the executive committee usually consists of vice-presidents in charge of traffic or the chief traffic officer, while the other committees are comprised of such officers as may be in charge of particular traffic. The development of these associations and committees in recent years has been rapid, particularly in the freight departments, and there are few roads at this time whose freight traffic officers are not members of some association or one or more committees thereof.

The increasing activities of national and state commissions and the innumerable decisions and regulations emanating from these bodies have added greatly to the subjects which must necessarily receive joint consideration by the carriers. It is publicly recognized that uniformity in rates by different routes, as well as any regulations affecting the movement of traffic, is essential in order that there shall be equality of charges and service to those who employ the railroads. It is only through some centralized association or committee that these matters can be suitably arranged and adjusted.

The Interstate Commerce Commission and various state commissions recognize and seek the co-operation of these associations as a convenient medium for the expeditious and uniform handling of matters affecting all carriers that are members thereof. Further, the utility of these associations is recognized by commercial bodies and by a large class of the shipping public who now understand that most questions of rate adjustment are

of a competitive character, involving many points commercially competitive, and are, therefore, of concern to many carriers, and that consideration and disposition thereof can be most satisfactorily conducted by conference through these associations.

From the carriers' standpoint it may be said that there are few questions of rate construction or traffic regulation that are now considered by these associations independently of their relation to, or effect upon, commercial interests, and it rarely occurs that important changes are made which have not to some extent been a matter of discussion with commercial bodies, interested shippers, or representatives of particular traffic or localities.

These associations are created and maintained by the railroads for the primary purpose of adjusting all questions of rate construction and collateral rules and regulations which are of common, competitive interest to members, and to secure the stability of reasonable rates and arrangements and the observance of the requirements of the law governing the same. There are no restrictive rules or penalties governing members, nor is there any curtailment of each carrier's rights independently to establish such rates and regulations as it may wish.

These associations are now recognized as an indispensable department of the carriers for the convenient and expeditious handling of the innumerable subjects relating to rates and traffic which must receive uniform treatment if the fundamental principles of the law are to be met by the carriers.

Traffic Characteristics

This territory, in so far as area is concerned, constitutes but one-ninth of that of the United States. It possesses, however, all of the attributes that make for low transportation charges.

NATURE OF THE COUNTRY

To begin with, the nature of the country, which is comparatively level east and west of the Allegheny Mountains, admits of an initial cost of construction and a subsequent cost of operation which are much lower, in all respects, than the high construction and operating costs, combined with light traffic, in the west and south.

DENSITY OF POPULATION

The following tabulation gives the population of the various states comprising the respective rate associations, the grand total constituting approximately one-half of the population of this country.

NEW ENGLAND FREIGHT ASSOCIATION TERRITORY[8]

Connecticut	1,114,756
Maine	742,371
Massachusetts	3,366,416
New Hampshire	430,572
Rhode Island	542,610
Vermont	355,956
Total	6,552,681

TRUNK LINE FREIGHT ASSOCIATION TERRITORY

Delaware	202,322
Maryland	1,295,346
New Jersey	2,537,167
New York	9,113,614
Pennsylvania	7,665,111
District of Columbia	331,069
Total	21,144,629

[8] It will be noted in the following tabulation that neither Virginia nor West Virginia is included therein, nor is the population of such points as St. Louis, Mo., Louisville, Ky., and other centers included, as it is believed that the states selected will fully emphasize the point at issue.

CENTRAL FREIGHT ASSOCIATION TERRITORY

Illinois 5,638,591
Michigan 2,810,173
Ohio 4,767,121
Indiana 2,700,876

Total 15,916,761

Grand total[9] 43,614,071

The following tabulation shows that the density of railroad mileage and the per cent of the total mileage of the United States, as well as the number of miles of railroad for 100 miles of territory, are equally as favorable to this section of the country.

NEW ENGLAND FREIGHT ASSOCIATION TERRITORY

State	Official Mileage	Proportion to Total Mileage in U. S.	Number of Miles per 100 Square Miles of Territory
Connecticut	999.04	.39	20.73
Maine	2275.57	.90	7.61
Massachusetts	2131.01	.84	26.51
New Hampshire ..	1255.85	.49	13.91
Rhode Island	202.96	.08	19.02
Vermont	1073.38	.42	11.76
	7937.81	3.12	

TRUNK LINE FREIGHT ASSOCIATION TERRITORY

Delaware	334.97	.13	17.04
Maryland	1433.97	.56	14.42
New Jersey	2314.67	.91	30.80
New York	8534.15	3.36	17.91
Pennsylvania	11692.57	4.61	26.08
D. of C...........	36.23	.01	60.38
	24356.56	9.58	

[9] 1910 Census.

State	Official Mileage	Proportion to Total Mileage in U. S.	Number of Miles per 100 Square Miles of Territory
Illinois	12142.96	4.79	21.69
Indiana	7479.31	2.96	20.75
Michigan	8869.90	3.49	15.42
Ohio	9158.61	3.61	22.48
	37650.78	14.85	
Grand total[10]	69452.98	27.88	

It will be observed from this tabulation that practically all the states have a density of railroad mileage considerably in excess of 10 miles per 100 square miles of territory. The average for the states west of the Mississippi River is in the neighborhood of 7 miles, which indicates very effectively what room there is for expansion in our railroad system as a whole.

Sources of Traffic

Regarding industrial and commercial activity, it is a well-known fact that the greatest mining and manufacturing enterprises of this country are located in this territory. It is appropriate, at this time, to consider some of the more important items that enter into the heavy freight traffic movement in this territory, in order that the reason for the special adjustments hereinafter described may be appreciated.

Water competition has had little to do with the scale of rates employed in this territory, for aside from that afforded by the Great Lakes, which are usually available from the middle of April to the middle of October, and by the ocean between points on the seaboard, the competition afforded by the other waterways, of which the Ohio

[10] Twenty-eighth Annual Report, Bureau of Railway Statistics.

and Mississippi rivers are the most important, may be regarded as potential, attracting little, if any, other traffic than that which is compelled to move via those channels.

According to the report of the Interstate Commerce Commission relative to the freight traffic movement of the entire United States for the year ending June 30, 1913, 1,144,840,303 tons of freight originated on roads making reports to the Interstate Commerce Commission in eastern, western, and southern territories.

This tonnage was distributed as follows:[11]

Products of agriculture	214,541,542
Products of animals	43,977,630
Products of the mines	881,160,472
Products of the forest	150,783,578
Manufacturers	259,872,837
Merchandise	51,649,606
Miscellaneous	78,606,604
Total tons	1,680,592,269

Of this tonnage, 50 per cent moved over the lines in Official Classification Territory, the traffic being assigned to the following grand divisions and subdivisions, the first of which was grouped as follows:

The products of agriculture are as follows:

Grain	33,560,998
Flour	10,405,707
Other mill products	9,214,938
Hay	6,190,764
Tobacco	609,366
Cotton	1,952,174
Fruits and vegetables	18,570,008
Other products of agriculture	3,978,446
Total	84,482,391

The tonnage of products of animals was distributed in the following manner:

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[11] Twenty-eighth Annual Report, Bureau of Railway Statistics.

Live stock	5,965,944
Dressed meats	3,864,129
Other packing-house products...........	2,817,396
Poultry, game, and fish...............	1,352,017
Wool	627,764
Hides and leather....................	1,920,964
Other products of animals..............	4,852,831
Total	21,401,045

The products of mines constituted the greatest amount
of tonnage for any of the single subdivisions and were
distributed as follows:

Anthracite coal	115,884,146
Bituminous coal	313,347,414
Coke	38,502,745
Ores	41,257,363
Stone, sand, and other like products......	67,919,391
Other products of mines................	7,907,919
Total	584,818,978

The tonnage derived from forest products was assigned
as follows:

Lumber	41,212,566
Other products of forests..............	12,392,548
Total	53,605,114

That manufacturing is engaged in to a greater extent
in Official Classification Territory than in other terri-
tories is best evidenced by the fact that the amount of
tonnage of manufactured articles moving in this territory
was over two times as great as that for the balance of
the country. The tonnage was distributed as follows:

Petroleum and other oils................	12,141,894
Sugar	3,731,291
Naval stores	617,011
Iron, pig and bloom...................	13,511,613
Iron and steel rails...................	3,241,708

Other castings and machinery	14,485.301
Bar and sheet metal	22,893,138
Cement, brick, and lime	40,814,615
Agricultural implements	1,029,887
Wagons, carriages, and tools	2,806,311
Wines, liquors, and beers	3,172,048
Household goods and furniture	1,919.722
Other manufactures	52,128,916
Total	172,493,455
Merchandise	39,155,369
Miscellaneous	45,442,700
Grand total (in tons)	1,001,399,052

With such an immense amount of traffic it is only natural that the rates in this territory have been and are on a lower basis than obtains in other sections of the country. In the subsequent chapters it is the author's purpose to set forth the various adjustments or bases for rate construction that are employed in making the rates on which the greater part of this tonnage is moved.

CHAPTER I

INTRASTATE RATES

In General

Before taking up the territorial and interterritorial adjustment of rates, attention will be given to intrastate rates in those states where the state commissions have provided scales. It will be noted that fewer rates have been prescribed by the state regulating bodies in this territory than in Western and Southern territories.

The scale of rates prescribed by the Illinois Commission is of considerable importance because of the great amount of traffic having its origin and destination in that state. However, a considerable amount of traffic destined to points in the Southeast moves from Chicago and related points via Cairo, Ill., and other Ohio River Crossings. In such cases it will be seen that the intrastate adjustment may have an important effect on the making of interstate rates.

The only states in this territory prescribing complete tables of distance rates are Illinois and Michigan.

Illinois

The Illinois scale provides for ten classes numbered from 1 to 10, inclusive, and is governed by the Illinois classification issued by the public utilities commission of that state.

A comparison of the Illinois rates with the intrastate rates in Michigan[1] and the rates in Central Freight Association Territory[2] shows the C. F. A. rates to be somewhat

[1] See Table 2.
[2] See Table 3.

higher. It is an interesting bit of history that in 1905 and 1906 the Illinois Railroad and Warehouse Commission reduced its rates because they were higher than the Central Freight Association scale. In fact, the rates from points in Indiana to St. Louis were much lower than those from Chicago to St. Louis. Consequently, a complaint was brought before the Illinois Commission by the shipping interests of Chicago and other Illinois cities, which resulted in a substantial reduction in the existing rates and in removing the discrimination complained of. By order of the Interstate Commerce Commission the C. F. A. rates were increased by 15%, bringing the rates above those of the Illinois mileage scale.

(a) Classification of Carriers

In the application of the schedule set forth in Table 1, the carriers operating in the state are divided into two classes, namely, Class A and Class B. Class A includes the more important lines in the state, which are as follows:

Atchison, Topeka & Santa Fe Ry.
Baltimore & Ohio R. R.
Baltimore & Ohio Southwestern R. R.
Belt Ry. of Chicago
Chicago & Alton R. R.
Chicago & Eastern Illinois R. R.
Chicago & Erie R. R.
Chicago and North Western Ry.
Chicago & Western Indiana R. R.
Chicago, Burlington & Quincy R. R.
Chicago Great Western R. R.
Chicago Heights Terminal Transfer R. R.
Chicago Junction Ry.
Chicago, Milwaukee & St. Paul Ry.
Chicago, Rock Island & Pacific Ry.
Chicago Short Line Ry.
Chicago Terminal Transfer R. R.
Cincinnati, Indianapolis & Western R. R.
Cleveland, Cincinnati, Chicago & St. Louis Ry.
Elgin, Joliet & Eastern Ry.
Grand Trunk Western Ry.
Illinois Central R. R.

Lake Erie & Western R. R.
Macoupin County Ry.
Michigan Central R. R.
Minneapolis, St. Paul & Sault Ste. Marie Ry.
Mobile & Ohio R. R.
New York Central R. R.
New York, Chicago & St. Louis R. R.
Pennsylvania Co.
Peoria & Pekin Union Ry.
Pittsburgh, Cincinnati, Chicago & St. Louis Ry.
Pittsburgh, Fort Wayne & Chicago Ry.
St. Louis, Iron Mountain & Southern Ry.
St. Louis Merchants Bridge Terminal Ry.
Southern Ry.
Terminal R. R. Association of St. Louis
Terre Haute & Indianapolis R. R.
Wabash Ry.

These roads are compelled by law, in publishing their rates, not to exceed the rates shown in Table 1.

Class B includes the smaller lines:

Calumet Western Ry.
Chicago & Illinois Midland Ry.
Chicago & Illinois Western R. R.
Chicago, Peoria & St. Louis R. R.
Chicago, Peoria & Western Ry.
Chicago Union Transfer Ry.
Chicago, West Pullman & Southern R. R.
Davenport, Rock Island & North-western Ry.
East St. Louis Connecting Ry.
Galesburg & Great Eastern R. R.
Illinois Northern Ry.
Illinois Southern Ry.
Illinois Terminal R. R.
Illinois Valley Belt R. R.

Iowa Central Ry.
Kankakee & Seneca R. R.
La Salle & Bureau County R. R.
Litchfield & Madison Ry.
Louisville & Nashville R. R.
Peoria Railway Terminal Co.
Quincy, Omaha & Kansas City R. R.
St. Louis & O'Fallon Ry.
St. Louis, Troy & Eastern R. R.
Terre Haute & Peoria R. R.
Toledo, Peoria & Western Ry.
Toledo, St. Louis & Western R. R.
Toluca, Marquette & Northern R. R.
Wabash, Chester & Western R. R.
Waukegan & Mississippi Valley Ry.

Class B also includes the electric interurban lines. The roads in this class are entitled to add 10 per cent to the rates shown in Table 1 for Classes 1 to 5, inclusive, and 5 per cent to the rates for Classes 6 to 10, inclusive, and to such commodity rates as may be established.

In the event that the name of any of the companies is changed or that control is assumed by another line, that fact will not serve to change the class of such railroad or railroads unless sanctioned by the Public Utilities Commission of Illinois.

TABLE 1
Rates for Class-A Roads

DISTANCES					RATES[1] IN CENTS PER 100 POUNDS									
					Classes									
					1	2	3	4	5	6	7	8	9	10
2 miles and under					7.5	6.	5.3	4.5	3.6	2.5	2.3	2.2	1.9	1.8
4 " " over 2 miles					9.	7.5	6.8	5.3	4.2	3.2	2.9	2.8	2.4	2.2
6 " " " 4 "					10.5	9.	7.5	6.	4.8	4.2	3.9	3.7	3.2	2.9
10 " " " 6 "					12.	10.5	9.	6.8	5.4	5.1	4.8	4.2	3.7	3.4
15 " " " 10 "					13.5	12.	10.5	7.5	6.	5.9	5.6	4.7	4.	3.5
20 " " " 15 "					15.	13.5	11.3	8.3	6.6	6.3	6.	5.1	4.2	3.8
25 " " " 20 "					16.5	15.	12.	9.	7.2	6.8	6.5	5.6	4.4	4.
30 " " " 25 "					18.1	15.8	12.8	9.6	7.7	7.2	6.9	6.	4.7	4.2
35 " " " 30 "					19.6	16.5	13.5	10.2	8.1	7.6	7.1	6.3	4.8	4.4
40 " " " 35 "					21.1	17.3	14.3	10.5	8.4	8.	7.8	6.5	5.	4.5
45 " " " 40 "					22.6	18.1	15.	10.9	8.7	8.5	8.2	6.7	5.2	4.7
50 " " " 45 "					23.3	18.8	15.8	11.3	9.	8.7	8.6	6.9	5.4	4.9

[1] Governed by the Illinois Classification.

TABLE 1—Continued
RATES FOR CLASS-A ROADS

Distances						RATES[1] IN CENTS PER 100 POUNDS — Classes									
						1	2	3	4	5	6	7	8	9	10
55	"	"	"	50	"	24.1	19.6	16.5	11.7	9.3	9.2	8.9	7.1	5.6	5.
60	"	"	"	55	"	24.8	20.3	17.3	12.	9.6	9.5	9.1	7.3	5.8	5.2
65	"	"	"	60	"	25.6	21.1	18.	12.4	9.9	9.7	9.3	7.5	6.	5.4
70	"	"	"	65	"	26.3	21.8	18.4	12.8	10.2	9.9	9.5	7.7	6.1	5.5
75	"	"	"	70	"	27.1	22.6	18.8	13.2	10.5	10.2	9.7	7.9	6.3	5.6
80	"	"	"	75	"	27.8	23.3	19.	13.5	10.8	10.7	10.3	8.	6.4	5.8
85	"	"	"	80	"	.28.6	23.7	19.2	13.9	11.1	11.	10.5	8.2	6.5	5.9
90	"	"	"	85	"	29.3	24.1	19.5	14.3	11.4	11.2	10.7	8.4	6.7	6.
95	"	"	"	90	"	30.	24.4	19.7	14.7	11.7	11.5	10.8	8.6	6.9	6.2
100	"	"	"	95	"	30.8	24.8	19.9	15.	12.	11.7	11.	8.8	7.	6.3
105	"	"	"	100	"	31.6	25.2	20.2	15.3	12.3	11.9	11.2	9.	7.1	6.4
110	"	"	"	105	"	32.3	25.6	20.4	15.6	12.5	12.2	11.4	9.2	7.3	6.6
115	"	"	"	110	"	33.1	25.9	20.6	15.9	12.8	12.4	11.6	9.4	7.5	6.7
120	"	"	"	115	"	33.8	26.3	20.8	16.2	13.	12.6	11.7	9.5	7.6	6.8
125	"	"	"	120	"	34.2	26.7	21.1	16.5	13.2	12.7	11.9	9.7	7.8	7.
130	"	"	"	125	"	34.6	27.1	21.3	16.8	13.5	12.9	12.1	9.9	7.9	7.1
135	"	"	"	130	"	35.	27.5	21.5	17.1	13.7	13.1	12.2	10.1	8.	7.2
140	"	"	"	135	"	35.3	27.8	21.7	17.4	14.	13.3	12.4	10.3	8.2	7.4
145	"	"	"	140	"	35.7	28.2	22.	17.7	14.2	13.4	12.5	10.4	8.3	7.5
150	"	"	"	145	"	36.1	28.6	22.2	18.1	14.4	13.6	12.6	10.6	8.4	7.6
155	"	"	"	150	"	36.5	28.9	22.4	18.2	14.6	13.8	12.8	10.7	8.5	7.7
160	"	"	"	155	"	36.9	29.2	22.6	18.3	14.7	14.	12.9	10.9	8.6	7.8
165	"	"	"	160	"	37.1	29.5	22.9	18.5	14.8	14.2	13.	11.	8.7	7.9
170	"	"	"	165	"	37.5	29.8	23.1	18.7	14.9	14.3	13.1	11.1	8.8	8.
175	"	"	"	170	"	37.7	30.1	23.3	18.8	15.	14.5	13.2	11.2	8.9	8.1
180	"	"	"	175	"	38.	30.4	23.5	18.9	15.2	14.6	13.3	11.4	9.	8.2
185	"	"	"	180	"	38.4	30.7	23.8	19.1	15.3	14.7	13.4	11.5	9.1	8.3
190	"	"	"	185	"	38.7	31.	24.	19.2	15.4	14.9	13.5	11.7	9.2	8.4
195	"	"	"	190	"	38.9	31.3	24.2	19.4	15.5	15.	13.6	11.8	9.3	8.5
200	"	"	"	195	"	39.1	31.6	24.4	19.6	15.6	15.2	13.7	12.	9.4	8.6
210	"	"	"	200	"	39.6	32.	24.8	19.9	15.9	15.4	13.9	12.2	9.5	8.7
220	"	"	"	210	"	40.2	32.5	25.2	20.2	16.1	15.5	14.1	12.4	9.7	8.8
230	"	"	"	220	"	40.7	32.9	25.6	20.5	16.4	15.7	14.2	12.6	9.9	8.9
240	"	"	"	230	"	41.2	33.4	25.9	20.8	16.6	15.9	14.4	12.7	10.1	9.1
250	"	"	"	240	"	41.7	33.8	26.3	21.1	16.8	16.1	14.6	12.9	10.3	9.3
260	"	"	"	250	"	42.3	34.3	26.7	21.4	17.1	16.3	14.8	13.1	10.4	9.4
270	"	"	"	260	"	42.8	34.7	27.1	21.7	17.3	16.4	15.	13.3	10.6	9.5
280	"	"	"	270	"	43.3	35.2	27.5	22.	17.6	16.6	15.1	13.5	10.7	9.6
290	"	"	"	280	"	43.8	35.6	27.8	22.3	17.8	16.8	15.3	13.7	10.9	9.8
300	"	"	"	290	"	44.4	36.1	28.2	22.6	18.1	17.	15.5	13.9	11.	9.9
320	"	"	"	300	"	45.1	36.9	29.	23.	18.4	17.4	16.	14.1	11.2	10.1
340	"	"	"	320	"	45.9	37.6	29.7	23.5	18.8	17.9	16.4	14.4	11.6	10.4
360	"	"	"	340	"	46.6	38.4	30.5	23.9	19.1	18.3	16.9	14.7	11.9	10.7
380	"	"	"	360	"	47.4	39.1	31.2	24.4	19.5	18.8	17.3	15.	12.2	11.
400	"	"	"	380	"	48.1	39.9	31.6	24.8	19.9	19.1	17.6	15.3	12.5	11.3
420	"	"	"	400	"	48.5	40.2	32.	25.1	20.	19.4	17.8	15.7	12.8	11.5
440	"	"	"	420	"	48.9	40.5	32.3	25.4	20.3	19.7	18.	15.9	13.1	11.8
460	"	"	"	440	"	49.3	40.8	32.7	25.7	20.5	20.	18.2	16.2	13.4	12.1
480	"	"	"	460	"	49.6	41.1	33.1	26.	20.8	20.3	18.5	16.6	13.8	12.4
500	"	"	"	480	"	50.	41.4	33.5	26.3	21.1	20.5	18.8	16.9	14.1	12.6

[1] Governed by the Illinois Classification.

(b)   Application of Rates

In formulating rate schedules under this statute the carriers, so far as their local rates are concerned, ascertain the distance from one point to another and apply the scale of rates prescribed for that distance for the class of carrier that is engaged.
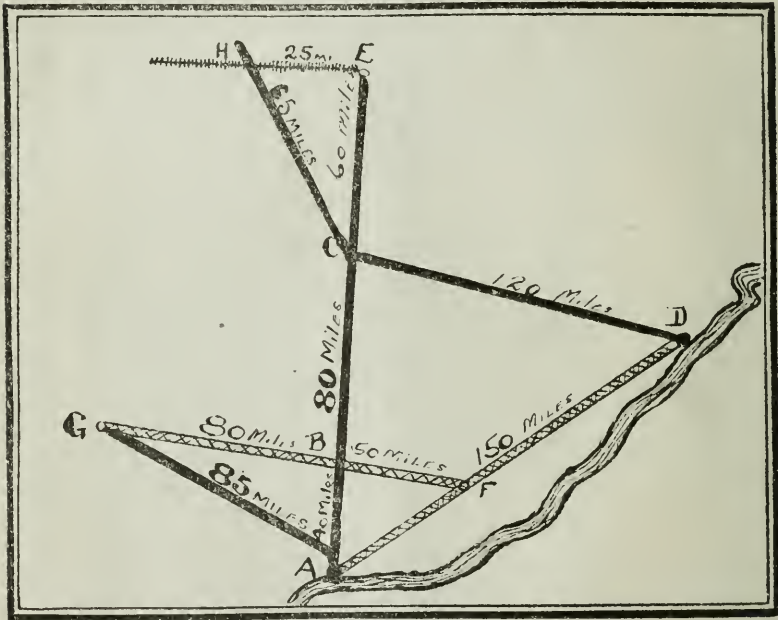
DIAGRAM 1

(c)   Joint Rates

In many instances joint rates are made on single-line mileage combinations and not by the application of the continuous-mileage scale. For example, taking Diagram 1 to illustrate the point, the distance from E to C is shown as 60 miles and that from C to D as 120 miles. Assuming that the respective hauls were made over separately

owned and operated Class-A roads, the through rates
would be determined as follows:[*]

Classes	1	2	3	4	5	6	7	8	9	10
E to C (60 mi.)	24.8	20.3	17.3	12.	9.6	9.5	9.1	7.3	5.8	5.2
C to D (120 mi.)	33.8	26.3	20.8	16.2	13.	12.6	11.7	9.5	7.6	6.8
(180 mi.)	—	—	—	—	—	—	—	—	—	—
Through rates..	58.6	46.6	38.1	28.2	22.6	22.1	20.8	16.8	13.4	12.0

This practice results in rates which are materially
higher than those that would obtain were the scale for
180 miles employed.

(d)   Equalization of Competition

Competition of railways and transportation routes
sometimes occasion a disregard of this procedure, as
the lines having the longer hauls are compelled to meet
or make the same rates as those established by the direct
line and to reduce their rates in order to meet the com-
petition of the short line.

For illustration, by again referring to Diagram 1
we see that the distance via the short line between
A and D is 150 miles, while by way of C it is 240
miles. If the line operating via C chooses to meet the
competition of the short line, the rate to any point on
the long route between A and D must not exceed the
A-to-D rate of the direct line, or the 150-mile scale.

It might so happen that the rate via the short line
from A to D had been lowered by water competition,
that is, that the charges via the river were so much
lower than the rates via the direct rail lines under the
regular mileage scale that the direct line would be
compelled to reduce its figures materially in order
to obtain a share of the business. In this event the
carrier or carriers having the circuitous route might
not be justified in meeting the competitive rates of the

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[*] Unless otherwise specified, the rates shown are in cents per 100 pounds.

short line, unless D were a point, with sufficient traffic in sight to offset the loss occasioned by reducing its rates to the intermediate points.

It frequently occurs that the advantage in location is so overwhelming that it cannot be met by the indirect line. Take, for example, the distance from E to H via the direct line, which is shown on the diagram as 25 miles, and contrast it with the circuitous route via C from E to H, a distance of 125 miles. In such a case it would be policy for the indirect route to forego the traffic and to maintain the regular mileage scale at all points between E and H via C.

In such instances traffic destined to certain points between C and H could be forwarded from E via H at lower joint rates than would obtain under the application of the local scale via the circuitous routes. As an example, assume that there is a point X located between C and H which is 10 miles distant from H; the first-class rate would be made as follows:

<div align="center">VIA H (COMBINATION RATE)</div>

E to H (25 mi.)............................... 16.5
H to X (10 mi.)............................... 12.

E to X...................Through rate via H 28.5

<div align="center">VIA C (CONTINUOUS RATE)</div>

E to C (60 mi.)
C to X (55 mi.)

E to X (115 mi.).............Through rate via C 33.1

Where competitive influences do not exist, such as on the line from A to E, the rates are made or scaled in conformity with the distance basis established by the state commission; that is, the figures prescribed for that distance are not exceeded at any station intermediate to, and including, E.

Michigan

As disclosed by the *Atlas of Railway Traffic Maps,* the upper part, or so-called upper peninsula, of the state of Michigan lies within Western Classification Territory, the southern part or southern peninsula being in Official Classification Territory, and as this work has to deal with that adjustment, the exposition of rates obtaining in this state will be devoted largely to the Official Classification rate structure.

Practically everyone is well acquainted with the fact that in the northern peninsula lie some of the richest copper and ore deposits to be found in the world, and as the Straits of Mackinac mark the terminus of the Official Classification line, the Western Classification Territory lines have extended their classification adjustment eastward to the straits, as it is more logical for them to do than to adopt the Official Classification of the southern peninsula lines.

While the ore and copper deposits previously mentioned account for the greater part of the tonnage of this state, coal is also produced in considerable quantity; but in the southern peninsula, particularly the northern part thereof, there is little or no traffic of consequence. The lumber interests long ago denuded Michigan forests of available timber, and at the present time this section is popularly viewed as a recreation spot or playground attracting thousands of persons annually who enjoy the effect of the bracing climate and the recreation afforded by the innumerable lakes with which the territory is dotted.

The leading manufacturing cities of Michigan are Grand Rapids, Lansing, Saginaw, Battle Creek, Albion, Traverse City, Muskegon, Port Huron, Wyandotte, and Detroit, and from an inspection of the *Atlas of Railway*

Traffic Maps, it will be noted that these points are for the most part located in the southern tier of counties.

It is true that Michigan is famed as a fruit raising state, but the fact that the movement of this commodity is seasonal does not occasion any appreciable effect upon the general class-rate structure which has been adopted by that state.

In order to minimize these conditions and to insure a fair return without undue prejudice to shippers, the Michigan carriers, in 1895, promulgated a scale of rates which are slightly higher for corresponding distances than are the rates obtaining under the Central Freight Association scale. This scale was based on 5-mile rates of progression from 5 to 100 miles, inclusive; on 10-mile rates of progression to and including 250 miles and on 25-mile rates of progression to and including 450 miles, the maximum distance being indicated as 500 miles. The rates range from 11 cents on first-class traffic for 5 miles to 55 cents per 100 pounds for 500 miles, and this scale had been in effect as a whole for many years, although in specific instances the rates had been advanced in one case and reduced in others.

Concurrent with the advance in freight rates throughout Official Classification Territory sanctioned by the Interstate Commerce Commission recently, the railroad commission of the state of Michigan authorized a general readjustment of the existing class rates obtaining in that state. The rates currently in effect are reproduced in Table 2A.

In sanctioning this increase, however, the Michigan commission, owing to the fact that it has been alleged that many points in the state were enjoying preferential rates occasioned by the disregard of distance in some instances, required carriers to recheck the entire state rate structure, with the result that the larger portion of the advance in rates in Michigan is due to this recheck.

TABLE 2
MILEAGE BETWEEN JUNCTION POINTS

DISTANCE IN MILES

Between / And	Addison Jct.	Adrian	Akron	Alabaster	Alba	Albion	Allegan	Alma	Almont	Alpena	Ann Arbor	③Annpere	Arcadia	Ashley	Au Gres	Augusta	Au Sable	Bad Axe	Baldwin	Barryton	Battle Creek	Bay City	Bayport	Bay View
Addison Jct.		33	146	200	260	37	106	121	245	260	55	82	247	104	176	63	209	184	187	157	53	134	167	305
Adrian	33		159	212	288	60	153	136	258	272	36	63	280	119	188	86	221	179	237	200	76	146	180	324
Akron	146	159		85	146	147	205	65	149	145	133	136	168	82	61	182	94	42	132	114	141	19	21	235
Alabaster	200	212	85		193	183	243	118	207	73	170	143	246	135	31	236	24	143	186	168	196	66	124	195
Alba	260	288	146	193		255	191	142	254	155	239	211	103	159	169	212	202	194	107	127	229	127	176	34
Albion	37	60	147	183	255		67	122	216	243	59	74	237	105	159	34	192	181	177	140	25	134	168	289
Allegan	106	153	205	243	191	67		140	304	303	125	148	179	128	219	38	252	228	119	140	48	172	226	225
Alma	121	136	65	118	142	122	140		164	178	100	73	143	17	94	157	127	104	101	50	126	52	86	176
Almont	245	258	149	207	254	216	304	164		263	223	235	292	181	179	200	212	104	231	213	191	137	129	384
Alpena	260	272	145	73	155	243	303	178	263		230	203	306	195	100	296	51	203	246	228	256	126	184	122
Ann Arbor	55	36	133	170	239	59	125	100	223	230		27	244	83	146	93	179	146	191	150	83	104	155	276
③Annpere	82	63	136	143	211	74	148	73	235	203	27		217	56	119	120	152	134	173	135	79	77	157	249
Arcadia	247	280	168	246	103	237	179	143	292	306	244	217		160	221	212	255	225	60	132	221	168	206	127
Ashley	104	119	82	135	159	105	128	17	181	195	83	56	160		111	139	144	121	108	67	110	69	103	193
Au Gres	176	188	61	31	169	159	219	94	179	100	146	119	221	111		211	48	118	161	143	172	42	99	221
Augusta	63	86	182	236	212	34	38	157	200	296	93	120	212	139	211		211	199	152	185	9	170	212	254
Au Sable	209	221	94	24	202	192	252	127	212	51	179	152	255	144	48	211		152	196	178	205	75	134	172
Bad Axe	184	179	42	143	194	181	228	104	104	203	146	134	225	121	118	199	152		174	156	183	80	21	224
Baldwin	187	237	132	186	107	177	119	101	231	246	191	173	60	108	161	152	196	174		73	161	120	152	153
Barryton	157	200	114	168	127	140	140	50	213	228	150	135	132	67	143	185	178	156	73		145	102	134	224
Battle Creek	53	134	141	196	229	25	48	126	191	256	83	79	221	83	172	9	205	183	161	145		130	162	255
Bay City	134	146	19	66	127	134	172	52	137	126	104	77	168	69	42	170	75	80	120	102	130		59	216
Bay Port	167	180	21	124	176	168	226	86	129	184	155	157	206	103	99	212	134	21	152	134	162	59		305
Bay View	305	324	235	195	34	289	225	176	384	122	276	249	127	193	221	254	172	224	153	224	255	216	305	
Beaverton	172	185	76	130	149	173	200	91	175	189	145	118	131	61	106	218	139	118	78	140	167	64	96	221

To serve this end, the carriers tabulated the result of their labor in a publication which, although in the form of a basing book, is filed with the Michigan commission and the Interstate Commerce Commission and is used as a

TABLE 2A

Michigan Class-Rate Scale

DISTANCE	CLASSES								
	1	2	3	4	5	6	R25	R26	R28
5 miles......	23.5	20	15.5	12	8.5	6.5	17	12.5	13
10 miles......	24.5	21	16	12.5	9	7	18	13	13.5
15 miles......	25.5	22	16.5	13	9	7	18.5	13	14
20 miles......	27	23	17.5	13.5	9.5	7.5	19.5	14	15
25 miles......	28	24	19	14	10	8	20.5	15	16
30 miles......	29	25	19.5	14.5	10.5	8	21.5	15.5	16.5
35 miles......	31	26	20.5	15.5	11	8.5	22	16.5	17.5
40 miles......	32	27	21.5	16	11.5	9	23	17	18
45 miles......	33	28	22	16.5	11.5	9	24	17.5	18.5
50 miles......	34.5	29	23	17	12	9.5	24.5	18.5	19
55 miles......	35	30	23.5	18	12.5	10	25.5	19	20
60 miles......	35.5	30.5	23.5	18	12.5	10	26	19	20
70 miles......	36.5	31.5	24.5	18.5	13	10	27	19.5	20.5
80 miles......	37.5	32	25	19	13	10.5	27	20	21
90 miles......	39	33.5	26	20	13.5	11	28.5	21	22
100 miles......	40	34.5	26.5	20.5	14	11	29.5	21	22.5
150 miles......	46.5	39.5	31	23.5	16	13	33.5	25	26
200 miles......	52.5	44.5	35	26	18.5	14.5	38	28	29
250 miles......	55.5	47	37	27.5	19.5	15	40	29.5	31
300 miles......	58.5	49.5	39.5	29.5	20.5	16	42	31.5	33
400 miles......	64.5	55	43	32.5	22.5	18	47	34.5	36
500 miles......	70.5	60	47	35.5	24.5	20	51	37.5	39.5
600 miles......	76.5	65	51	38	26.5	21.5	55.5	41	42.5
700 miles......	83	70.5	55.5	41.5	29.5	23	60	44.5	46.5
800 .miles......	85.5	75.5	59	44.5	31	24.5	64	47	49.5

[1] Wherever it is required to construct rates that are a percentage of other rates (except when otherwise provided), fractions of less than five-tenths of a mill are disregarded, and five-tenths of a mill and over are counted as one mill. This applies both intrastate and interstate.

tariff. This publication indicates, in addition to the rates
set forth in the preceding table, the distances between
various junction points throughout the state, and the
information is set forth in the manner indicated by the
excerpt taken from the publication shown in Table 2.

Points enumerated in the tariff are basing points;
points not shown are designated as local points, and it
is well to consider at this time some of the more impor-
tant rules with respect to the construction of rates under
this form.

Rule 1. Rates Between Basing Points.[4]—Rates between
basing points will be the mileage scale rates for the distance
between the points as shown in the tariff.

Example.—Rates from Alma to Owosso, a distance of
38 miles, will be the rates shown in Table 2A for that dis-
tance, which are 32—27—21.5—16—11.5—9.

*Rule 2. Rates from Basing Points to Local Points for a
One-Line Haul.*—Rates from a basing point to a local point
located on the same railroad will be the mileage scale rates
for the actual distance, except the rates shall not exceed
rates to the same point via two or more railroads made in
accordance with Rule 4.

Example.—From Kalamazoo to Middleville (a point on
the M. C. R. R. between Grand Rapids and Hastings)
rates will be computed by using the mileage from Kalamazoo
to Hastings, plus the mileage from Hastings to Grand
Rapids, resulting in the following: 36.5—31.5—24.5—18.5
—13—10. The rates for the actual Michigan Central mile-
age were not used in this case because lower rates apply
via two lines in accordance with Rule 4.

*Rule 3. Rates from Local Points to Basing Points for a
One-Line Haul.*—Rates from a local point to a basing point
located on the same railroad will be the mileage scale rates
for the actual distance, except the rates shall not exceed
rates from the same point via two or more railroads made in
accordance with Rule 5.

Example.—This is the reverse of the Kalamazoo to
Middleville example shown under Rule 2.

Rule 4. Rates from Basing Points to Local Points for a

[4]From Freight Tariff 175 Series, issued by Eugene Morris.

Two or More Line Haul.—Rates from a basing point to a local point located between two basing points will be arrived at by using the mileage to that basing point to which the lower mileage is shown in the tariff and adding thereto the mileage from such basing point to the other basing point, subject to the rates to the basing point taking the higher rates as minimum.

Example.—From Otter Lake to Davison (a point on the G. T. Ry. between Lapeer and Flint) rates will be computed by using the mileage from Otter Lake to Lapeer plus the mileage from Lapeer to Flint, resulting in the following: 31—26—20.5—15.5—11—8.3.

Rule 5. Rates from Local Points to Basing Points for a Two or More Line Haul.—Rates from a local point located between two basing points to a basing point will be arrived at by using the mileage from that basing point from which the lower mileage is shown in the tariff and adding thereto the mileage to such basing point from the other basing point, subject to the rates from the basing point taking the higher rates as a minimum.

Example.—This is the reverse of the Otter Lake to Davison example shown under Rule 4.

Rule 6. Rates between Local Points on Same Railroad.—Rates between local points located on the same railroad will be computed on the actual mileage from point of origin to destination as published in individual lines' Tables of Distances, lawfully on file with the state and interstate commissions.

Example.—Rates from Chelsea (a point on the M. C. R. R. between Ann Arbor and Jackson) to Parma (a point on the M. C. R. R. between Jackson and Albion) will be the rates for the actual mileage (32 miles), which are 31—26—20.5—15.5—11—8.3.

Rule 7. Rates from a Local Point on One Railroad to a Local Point on Another Railroad.

Section A. When there is a route between the origin point and the destination point, via which there is only one basing point between them, rates will be arrived at by adding the following:
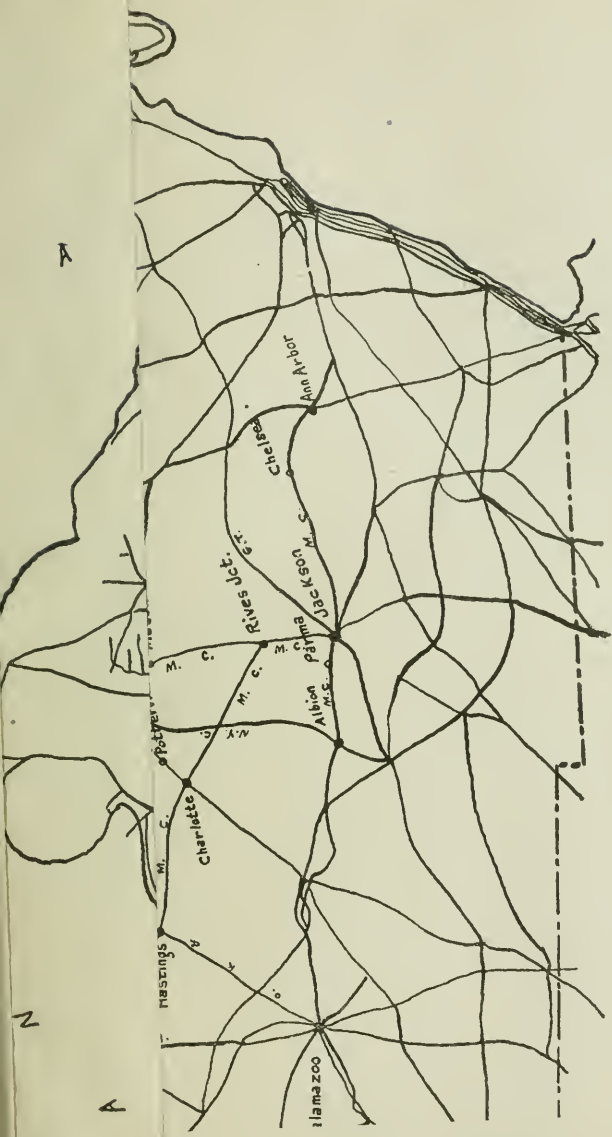
ρ shows points named in examples illustrating Rules 1 to 7 inclusive of Michigan adjustment.

This map shows points named in examples illustrating Rules 1 to 7 inclusive of Michigan adjustment.

(1) Mileage from basing point beyond the origin point to the intermediate basing point.

(2) Mileage from the intermediate basing point to the basing point beyond the destination point.

Example.—To ascertain rates from Potterville to Mason, add—

        Mileage—Charlotte to Lansing..........18 miles
                Lansing to Rives Jct..........26   "
                                              ____
                                              44   "

Rates—33—28—22—16.5—11.5—9.

Section B. Where more than one basing point is located between the origin point and the destination point, rates will be arrived at by the mileage as indicated below, subject to the rates from the basing point on either side of the origin point from which the higher rates apply, computed in accordance with Rule 4 of tariff, as minima:

(1) Mileage from basing point on either side of the origin point to basing point on either side of the destination point, whichever is lower.

(2) Mileage between the two basing points between which the origin point is located.

(3) Mileage between the two basing points between which the destination point is located.

Example.—To ascertain rates from Crofton to Fremont, add—

        Mileage—Walton Jct. to White Cloud....83 miles
                Kalkaska to Walton Jct........18   "
                White Cloud to Muskegon.....35   "
                                             ____
                                             136   "

Minimum:—Kalkaska to Fremont, computed in accordance with Rule 4 of tariff, is 168 miles, arrived at as follows:

        Kalkaska to White Cloud.............133 miles
        White Cloud to Muskegon............. 35   "
                                            ____
                                            168   "

Rates—48.5—41.5—32.5—24.5—17.5—13.5.

Ohio

A number of years ago the state of Ohio enacted a statute fixing the maximum charge for the transportation of property by freight at 5 cents per ton per mile, to which might be added a reasonable charge for loading and unloading when the service was performed by the carrier.

The burden was consequently placed upon the carriers to see that their schedules were adjusted in conformity with this law and that the rates charged for the movement of property between given points did not exceed the maximum prescribed by the statute. In other words, the state did not prescribe a scale of rates, as is the case in Michigan and Illinois, but simply established a maximum charge per ton per mile which the carriers were required to observe.

This statute, however, has been repealed by the Ohio legislature. The rates are now established by the carriers themselves but are subject to the approval by the public utilities commission of the state.

Indiana

The only remaining state included within Central Freight Association Territory is Indiana. While this state has a very active railroad commission, there never has been statutory provision as to the maximum class rates applicable within the state. The rates established by the carriers are subject to revision and approval by the state railroad commission. Consequently, the Central Freight Association scale is applied generally throughout the state on intrastate and interstate traffic. Competitive conditions have led to the adoption of the Central Freight Association scale as applied to traffic in western New York and Pennsylvania adjacent to the so-called Western Termini.

CHAPTER II

RATES WITHIN CENTRAL FREIGHT ASSOCIATION TERRITORY

THE CENTRAL FREIGHT ASSOCIATION SCALE

So much mention has been made of the so-called Central Freight Association scale in connection with the intrastate-rate adjustments that it seems desirable to devote this chapter to a consideration of this very important rate structure.

Rates within Central Freight Association Territory, except on intrastate traffic previously discussed, are based very generally on the Central Freight Association scale of class rates which are shown in Tables 3A, 3B, and 3C.

*TABLE 3A

COMMISSION ZONE-A SCALE

DISTANCES	1	2	3	4	5	6
5	18.5	15.5	12.5	9.5	6.5	5
10	19.5	16.5	13	10	7	5.5
15	20.5	17.5	13.5	10.5	7	5.5
100	34.5	29.5	23	17.5	12	9.5
110	35.5	30	24	18	12.5	10
120	37	31.5	25	18.5	13	10.5
200	46	39	31	23	16	13
210	46.5	39.5	31	23.5	16.5	13
230	47.5	40.5	32	24	16.5	13.5
300	52	44	35	26	18	14.5
320	53	45	35.5	26.5	18.5	15
400	57.5	49	38.5	29	20	16
420	58.5	49.5	39	29.5	20.5	16.5
440	60	51	40	30	21	17
480	62	52.5	41.5	31	21.5	17.5
500	63.5	54	42.5	32	22	18
520	64.5	55	43	32.5	22.5	18
600	69	58.5	46	34.5	24	19.5
620	70	59.5	47	35	24.5	19.5
660	72.5	61.5	48.5	36.5	25.5	20.5

[1] When a rate is desired for a distance not given in the foregoing scale, use the rate for the next greater distance.
[2] Governed by the Official Classification.

*TABLE 3B

COMMISSION ZONE-B SCALE

DISTANCES	1	2	3	4	5	6
5	20.5	17.5	13.5	10.5	7	5.5
10	22	18.5	14.5	11	7.5	6
15	23	19.5	15.5	11.5	8	6.5
100	37	31.5	25	18.5	13	10.5
110	38	32.5	25.5	19	13.5	10.5
120	39	33	26	19.5	13.5	11
200	48.5	41	32.5	24.5	17	13.5
210	49	41.5	33	24.5	17	13.5
230	50	42.5	33.5	25	17.5	14
300	54	46	36	27	19	15
320	55	47	37	27.5	19.5	15.5
400	60	51	40	30	21	17
420	61	52	41	30.5	21.5	17
440	62	52.5	41.5	31	21.5	17.5
480	64.5	55	43	32.5	22.5	18
500	65.5	55.5	44	33	23	18.5
520	66.5	56.5	44.5	33.5	23.5	18.5
600	71.5	61	48	36	25	20
620	72.5	61.5	48.5	36.5	25.5	20.5
660	75	64	50.5	37.5	26.5	21

*TABLE 3C

COMMISSION ZONE-C SCALE

DISTANCES	1	2	3	4	5	6
5	24.5	21	16	12.5	8.5	6.5
10	26	22	17	13	9	7
15	27	23	18	13.5	9.5	7.5
100	41	35	27.5	20.5	14.5	11.5
110	42	36	28	21	15	11.5
120	43	36.5	28.5	21.5	15	12
200	52.5	44.5	35	26.5	18.5	14.5
210	53	45	35.5	26.5	18.5	14.5
230	54	46	36	27	19	15
300	58	49.5	38.5	29	20.5	16
320	59	50.5	39.5	29.5	21	16.5
400	64	54.5	42.5	32	22.5	18
420	65	55.5	43.5	32.5	23	18
440	66	56	44	33	23	18.5
480	68.5	58.5	45.5	34.5	24	19
500	69.5	59	46.5	35	24.5	19.5
520	70.5	60	47	35.5	25	19.5
600	75.5	64.5	50.5	38	26.5	21
620	76.5	65	51	38.5	27	21.5
660	79	67.5	53	39.5	28	22

In the readjustment the carriers proposed, in the first place, to divide C. F. A. Territory into three separate sections or zones and to use three separate scales of rates:

The principal zone embraces all the territory on and south of the line of the Michigan Central Railroad from Chicago to Detroit, through Kalamazoo and Jackson, Mich., and is designated as "Zone A."

Zone B lies immediately north of Zone A and is bounded on the north by a line running from Muskegon, on the east bank of Lake Michigan, eastwardly across the state through Greenville, Edmore, Alma, Saginaw, Midland, Bay City, and Sandusky, Mich., to Lake Huron.

Zone C lies directly north of Zone B and includes the remainder of the southern peninsula of Michigan. Zone C also embraces, via car-ferry route, the west banks, Lake Michigan ports north of Milwaukee, Wis., namely, Sheboygan, Manitowoc, Kewaunee, Green Bay, Two Rivers, and Marinette, Wis., and Menominee and Manistique, Mich. This is by virtue of the fact that such traffic moves through that part of Michigan which is in Zone C and via the ports of Ludington and Frankfort. (Our students will do well to indicate these zones on Map 8 of their *Atlas of Railway Traffic Maps*.)

In formulating the scale applicable within Zone A up to and including a distance of 25 miles, the scale proposed was divided into 5-mile blocks. Beyond that, to and including 55 miles, it was divided into 10-mile blocks. Thence, up to and including a distance of 100 miles, 15-mile blocks. For distances of over 100 miles to and including 200 miles, it was divided into 20-mile blocks, while for greater distances, 25-mile blocks were used. The mileage blocks in the proposed scale were larger than in the existing scale, but that was offset to some extent, at least, by the fact that in the proposed scale the rates generally change with every block, while in the existing scale, they are often the same for two or more blocks. The scale was mainly for use in connection with distances which do not exceed 475 miles, the Chicago western termini distance.

For reasons not disclosed in the record, the carriers did not feel free to make substantial increases in the fifth- and sixth-class rates. Therefore, in constructing the scale, they began with the sixth-class rate as a basis so that they would be better able to keep control of the figures for the lower classes and to avoid heavy increases and severe disturbances. They started with 3 cents per 100 pounds as a reasonable sixth-class rate for

5 miles and less. That had been the sixth-class rate prior to
the 5 per cent increase made in 1914. To arrive at the sixth-
class rate for distances greater than 5 miles, one-half cent was
added for each successive mileage block. If 2.5 cents instead
of 3 cents had been taken as the sixth-class base rate for 5 miles,
a progression of one-half cent for each mileage block would have
brought about radical reductions in the present rates for the
greater distances. While if 3.5 cents had been used, the increases
for the greater distances would have been more than the car-
riers were inclined to propose. The first-class rate for 5 miles
was fixed at 11 cents, as that seemed reasonable compared with
first-class rates of 11.6 cents in Michigan, 10.5 cents in Illinois,
for one-line hauls, 10 cents in New England, Zone A, and 12
cents in New England, Zone B.

Following what appeared to be the prevailing practice, the
second-class rate was made 85 per cent of the first-class rate,
or 9.5 cents. The third-class rate, largely as a matter of com-
promise, was fixed at 7 cents, or .4 cents less than the present
C. F. A. scale. Temporarily skipping fourth class, the fifth-
class rate was arbitrarily made 4 cents, which was the rate prior
to the 5 per cent increase and which happened to be 130 per
cent of the sixth-class rate. The fourth-class rate was then
made 165 per cent of the sixth class, or 5 cents, which was one
cent less than that in the C. F. A. scale prior to the 5 per cent
increase. The rates for 5 miles were then seen to be related
to the sixth-class rate according to the following per cent.

Classes	1	2	3	4	5	6
Per cent of Sixth Class	375	315	240	165	130	100

Having arrived at the sixth-class rate for all distances in
accordance with the foregoing rule of progression, the rates for
higher classes in each mileage block beyond the first block, to
and including the 200-mile blocks, were uniformly based on the
above percentages of the sixth-class rates. If the above per-
centages had been used for distances of "475 and over 450
miles," the resulting rates, when applied between Buffalo and
Chicago, would not have cleared the existing rates between
Rochester, N. Y., and Chicago. For instance, the first-class
rates between Buffalo and Chicago would have been 60 cents,
whereas the existing first-class rate from Chicago to Rochester
is 58.3 cents, and from Rochester to Chicago, 55.2 cents. In
order to avoid this difficulty, the percentage relation observed
in the scale for all distances over 450 miles was as follows:

Classes	1	2	3	4	5	6
Per cent of Sixth Class	320	272	216	146	120	100

This arrangement resulted in the first-class rate of 51 cents for the distance between Chicago and Buffalo, and prevented a violation of the long-and-short-haul rule. For distances over 200 miles to and including 450 miles, no definite percentage relations to sixth-class rates were observed, but the spread in the rates between the 200 and the 450-mile blocks was distributed ratably over the intervening blocks.

The Zone-B scale was made one-half cent higher on sixth-class than the Zone-A scale, and the Zone-C scale one cent higher on sixth class than the Zone-B scale. The rates on the higher classes in both of these scales are based upon the sixth-class rate substantially as in the Zone-A scale. Upon the whole, the Zone-B scale is probably about 5 per cent higher than the Zone-A scale and the Zone-C scale about 8 per cent higher than the Zone-B scale.

It should be understood that these scales are not published in tariffs but are merely the basis used in constructing the published rates. The carriers did not undertake to compute distances between all points in C. F. A. Territory for use in applying this scale. That, it was said, would have been an enormous task, and, from a practical standpoint, not worth the time and expense required to perform it. The distances that were computed totaled about 400,000 in number and required the work of a large clerical force for several months. Distances were computed between all points on the same road and between a large number of so-called "basing points" on different roads. The basing points comprise most of the common or junction points in C. F. A. Territory and a number of local points including all branch-line termini.

In computing the distances, the shortest workable route in each case was ordinarily used, and the distances thus obtained were employed in arriving at rates for the longer routes between the same points. However, in some cases certain other considerations which were deemed to be controlling prompted the use of routes other than the short routes as bases for computing the distances. For instance, if the short route involved a two-line haul, it was not used if either of the lines composing it had a longer but reasonably direct route of its own between the points.

Having discussed the proposed scales and the methods of arriving at distances, it is now in order to see how the two were used in determining the actual rates between given points.

For one-line hauls of distances up to and including 70 miles. the scale was strictly applied, that is, in accordance with the actual distance, but actual distance is not applied via one-line hauls more than 70 miles or for hauls of any length over two or more lines except between basing points. In the two latter cases the rates between the various basing points are arrived at by applying the scale in accordance with the actual distance, and the rate to or from any intermediate point is the same as the rate to or from the basing point next beyond, no matter how far beyond.

The application of the scale can possibly be better understood from a diagram shown below and from the explanation which follows:

One-Line Haul

0	10	25	50	70	90	110
o	o	o	o	o	o	o
x	a	b	c	d	e	f
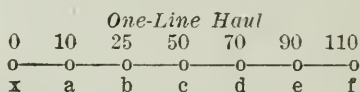
x is a point of origin.

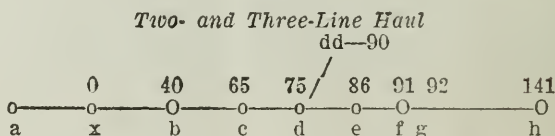The figures above the horizontal line denote the distances in miles from x.

a, b, c, and d are local points of destination, within 70 miles of x. To these points of destination the scale is strictly applied.

f is a junction point with a connecting line, which may be 110 miles from x. It is a basing point, and under the carriers' rule of application it is the first point beyond d to which a rate is published in accordance with the scale and distance.

e is a local point between d and f, which under the carriers' rule takes the same rate as f, namely, the rate for "120 and over 100" miles. If the scale were applied in accordance with the distance, e would be given the rate for "100 and over 85" miles. This situation represents what the carriers call an "inflation."

Except as to cases where it would interfere with group and basing-point rates, the carriers have agreed to amend their tariffs and for single-line distances of over 70 miles not to apply the f rate to e if it results in charging e with more than is provided by the scale for that distance.

A diagram illustrating the situation on a two- or three-line haul appears below:

Two- and Three-Line Haul
dd—90

0	40	65	75	86	91	92	141
o	o	O	o	o	o	O	O
a	x	b	c	d	e	f g	h

x is a point of origin.

The figures above the horizontal line denote distances in miles from x.

b, f, and h are basing points at junction with connecting lines.

d and dd are local basing points on the line of the second carrier and distant 75 miles and 90 miles respectively from x. dd is also the terminus of a branch line. These are the first points beyond b, to which, under the carriers' rule of application, a rate is published in strict accordance with the scale.

The basing points f and h are, respectively, 91 miles and 141 miles from x, and are the only points beyond d to which, under the carriers' rule of application, the scale is strictly applied.

c, e, and g are representative local points between basing points and distant, respectively, 65, 86, and 92 miles from x. In each case they take the rate applicable to the basing point beyond. viz., d, f, or h, regardless of what the scale provides for their respective distances. There would be no "inflation" at c or e, but there would be at some points between b and c, and at some points between d and e, because the distances exceed one mileage block. There would also be "inflations" at some points between f and h. It will be observed that the distance between f and h is 50 miles and that g, but one mile beyond f, is charged the rate applicable to h, which is that for "160 and over 140" miles. If the scale were strictly applied, there would be three breaks in the rates at points between f and h; that is, there would be rates for points "100 and over 85" miles, "120 and over 100" miles, and "140 and over 120" miles. If x, the point of origin, does not happen to be a basing point, there is a further "inflation" in each of the cases referred to, because x would take the rate applicable from a, a basing point, just as e takes the rate applicable to f; and the rate from any point between a and b to any point between b and d would be the rate from a to d.

When the rates to two near-by basing points are the same· the points between them take the same rates as the basing points.

These rules or methods, with some modifications, were used generally in constructing the proposed rates, and, as will later appear, the group system of rate making was also employed. The rates at present in effect, and which generally have been in effect for many years, except for the 5 per cent increase made in 1914, were made in substantially the same manner. However, the "inflations" in the present rates are said by the carriers to be more numerous and more marked than they are in the proposed rates. To publish to and from every point in C. F. A. Territory rates strictly accordingly to scale and distance would necessi-

tate the compilation of hundreds of thousands of additional distances, and would result in voluminous and complicated tariff publications.   The "inflations" in the proposed rates occur principally on two- and three-line hauls, and in most cases probably do not result in higher rates than would have resulted had the carriers strictly applied the scale between all points and followed either the practice of adding a differential for hauls over two or more lines or the practice of charging the combination of the locals of each line.

Points between which there is a large movement of traffic are generally basing points, while the points at which the "inflations" appear are generally local stations which do not ship or receive a large tonnage.   The "inflations" are, of course, more marked and more prevalent where the distances between basing points are of considerable length, than where such distances are comparatively short.   C. F. A. Territory is so covered by the network of railways that in many cases the distance between basing points does not exceed the distance included in one mileage block of the proposed scale.   However, to meet the objections made by some of the protestants, the carriers, except as to traffic to and from Michigan, have no great objection to a requirement by the Commission that they establish an additional basing point wherever the distance between the basing points now used in applying the proposed scale is 25 miles or more. The establishment of such new basing points would increase the proposed rates in some cases, and decrease them in others, and on account of the long-and-short-haul rule might cause the closing of certain routes, but it would result in the elimination of many of the "inflations" found in the proposed rate structure. Carriers maintain that it is wholly impracticable to adopt an absolutely rigid distance scale in C. F. A. Territory.

These scales are divided into 5-mile blocks for distances up to and including 100 miles.   Then they progress by 10-mile blocks up to and including 300 miles.   Beyond that 20-mile blocks are used.   The Zone A scale begins with 16 cents as the first-class rates for 5 miles and less.   One cent is added for each succeeding block up to and including 50 miles.   Beyond that, up to and including 100 miles, on the theory that the charge per ton-mile should decrease, it progresses by additions of one-half cent for each mileage block.   Thence up to and including a distance of 200 miles, it progresses by additions of one cent per block, or twice as much as for the blocks for the distances from 50 to 100 miles, for the reason that the blocks are doubled in size.   On the theory that the charge per ton-mile should further decrease for longer distances, an increase of one-half cent per block is

then used up to and including 300 miles. Beyond that, as the blocks have doubled in size, the degree of progression is doubled, one cent per block being observed. The rates on the lower classes are in all cases related to first class according to the following percentages:

Classes	1	2	3	4	5	6
Percentage Relationship	100	85	67	50	35	28

We may say as a matter of information that in the Chicago-New York scale the rates for the lower classes appear to be related to the first-class rate according to the following percentages:

Classes	1	2	3	4	5	6
Percentage Relationship	100	86⅔	66⅔	46⅔	40	33⅓

The Zone-B scale starts with a rate 2 cents higher on first class for five miles than does the Zone-A scale. For use to and from Zone C, or subdivisions thereof, carriers may work out scales of differentials to be added to the rates in the Zone-B scale.

In publishing the rates the following rule for the disposition of the fractions shown in these scales shall be observed: Fractions of less than ¼ or .25 to be omitted; fractions of ¼ or .25, or greater, but less than ¾ or .75 to be shown as ½ (one-half); fractions of ¾ or .75, or greater, to be increased to the next whole figure.

APPLICATION OF THE CENTRAL FREIGHT ASSOCIATION SCALE

The method of determining the scale to employ is as follows: At all junction points throughout the territory where two or more carriers compete for the business of that point, representatives of each of the lines are delegated to meet the representatives of the other lines and to participate in what is called a ''rate check.''

The duties of these committees are confined to the determination of the short-line distance via workable and usually traveled routes from the junction in question to all other junctions in the territory (of which there are

upwards of a thousand). Rates to local points are not considered at these meetings, being taken care of by the following rule :

Rates to any point not named, but which is directly between two points to which rates are named, will be the same as the rates named to such two points, unless the rates to such two points are not the same, in which case the rate to the point involved will be that applicable to the point to which the higher rate is published.[1]

Diagram 2 has been prepared to indicate the procedure that is commonly employed. In this diagram are shown a few of the junction or common points and the short-line distance between such points. Assuming that the rate from St. Louis, Mo., were involved, representatives of the Central Freight Association lines operating from St. Louis would meet and submit data indicating the distance via each of the lines and their connections to all Central Freight Association junction and base points.

With this data before them, the representatives would determine on what scale the rates would be published to the common points and whether or not their lines would participate in the traffic, for the route via one or more of the initial lines might be so circuitous as to preclude the possibility of engaging therein.

Taking Indianapolis, Ind., as a destination, the distance is such as to warrant the application of the 250-mile scale. As this city is of considerable importance both as a consuming point and as a manufacturing center, this scale of rates would be fixed as the scale to that point, and rates to intermediate points via workable routes to Indianapolis would be established which would not exceed this scale.

The rates so established would then be observed as minimum rates as far back towards the originating point as the next common point, the distance to which war-

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[1] The same rule may be observed for intermediate points of origin.
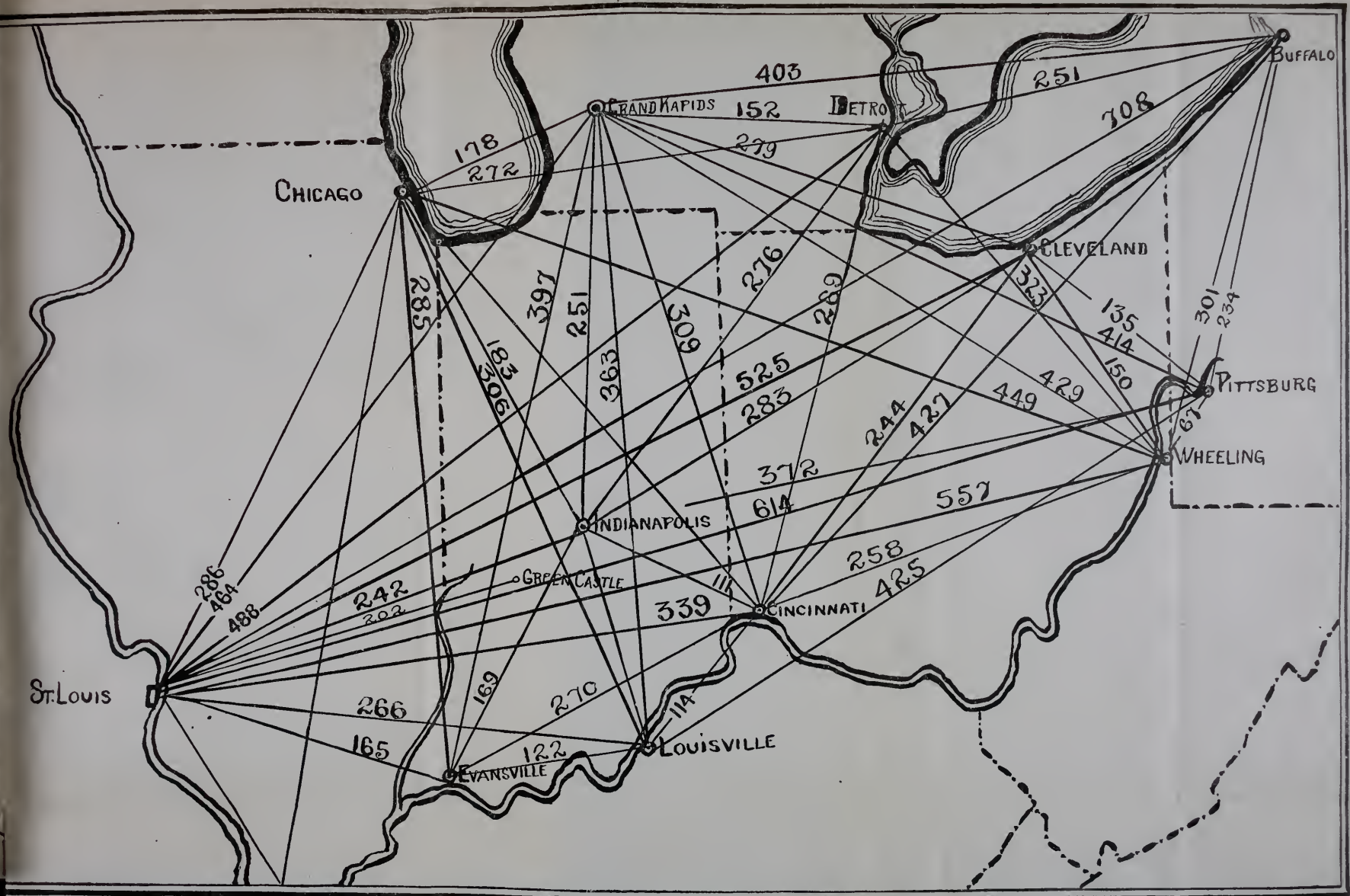
Diagram 2

ranted the application of a lower scale. On the line of
the Vandalia Railroad, this would be at Greencastle, the
distance to which is 202 miles, warranting the applica-
tion of the 210-mile scale. As the point itself is of minor
importance from a traffic viewpoint, it is not unlikely that
the distance would be slightly inflated and the 230-mile
scale applied to preserve a relative alignment of rates
(avoiding abrupt increases) as compared with the Indian-
apolis rates and to enable the more circuitous routes to
participate in the traffic.

The results of the labors of these committees are then
tabulated and arranged in convenient form in what is
known as a "basing book" or a "basing sheet." This
issue shows all of the common points or junction points
in the territory and either the specific rates to apply
thereto or the names of the base points of the group
rates that are to be applied.

GROUPING OF POINTS

Owing to the density of railroad mileage in this ter-
ritory, the numerous intersections of the lines comprising
the system have created a thousand and more of these
junction points, many of which are closely situated to
each other. Particularly in so far as long hauls are
concerned, some of them fall within the same distance
from a given point of origin.
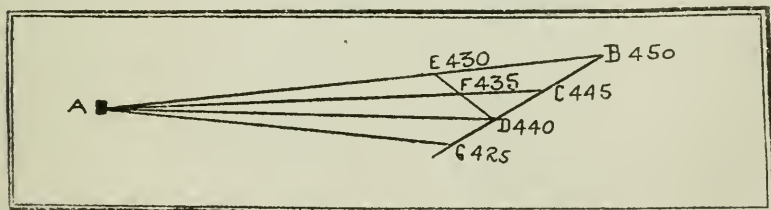
DIAGRAM 3

In Diagram 3 the distance from A to each of the junc-
tions indicated (except G) is in excess of 425 miles and

the application of the 450-mile scale is warranted. The committee would not, however, indicate a specific scale of rates to all of these junctions, but it would take B as the base point and show the 450-mile scale opposite it in the table of base rates.

FROM ST. LOUIS, MO., TO	MILES	RATES IN CENTS PER 100 POUNDS					
		Classes					
		1	2	3	4	5	6
B	450	61	52	41	30.5	21.5	17
G	425	60	51	40	30	21	17

In the body of the basing book the application of these rates to the other junctions would be provided for as follows:

To	RATE BASIS
B	B
C	B
D	B
E	B
F	B
G	G

For the purpose of further illustrating the rate-making method employed in this territory, we will assume that it is desired to construct a rate from Cincinnati, Ohio, to stations on the line of the Cincinnati, Hamilton & Dayton Railway. Accordingly, in Diagram 4, we have indicated the more important junction points upon this line and the distance that they are removed from Cincinnati via this route. In cases where this route is not the short line, the short line has been indicated together with the distance via such route.

The first junction point north of Cincinnati shown in this figure is Hamilton, Ohio. Consequently, the representatives of the Cincinnati, Hamilton & Dayton Railway and the Pittsburgh, Cincinnati, Chicago & St. Louis Rail-
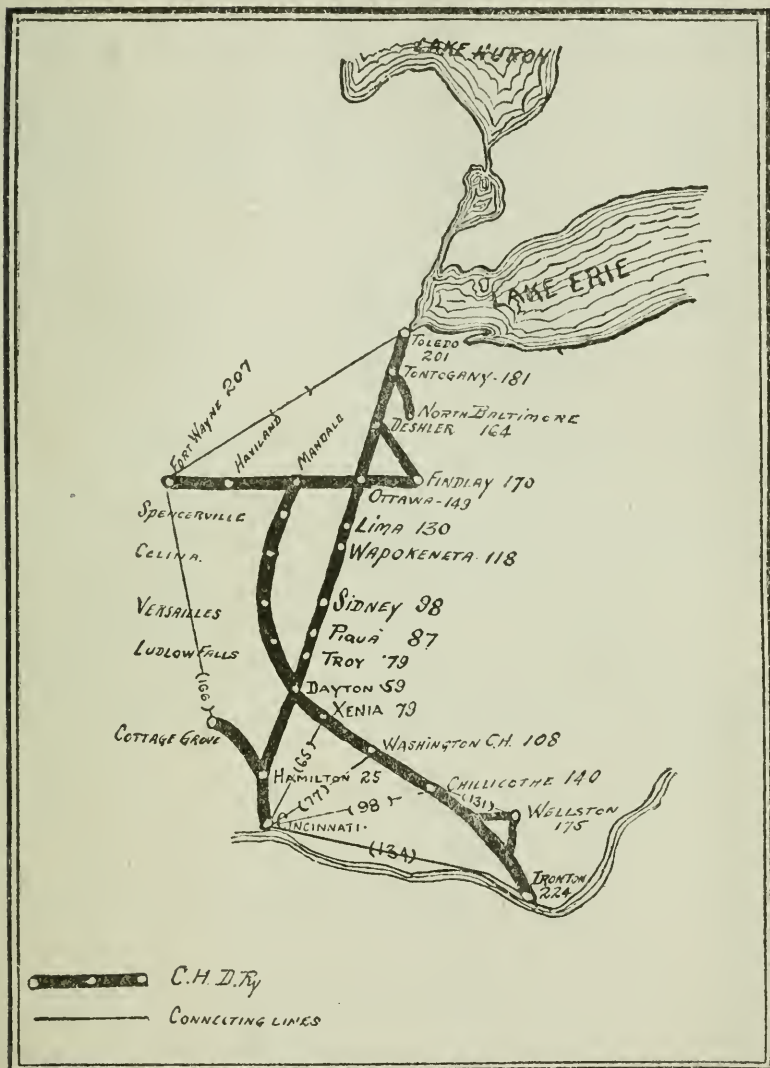
DIAGRAM 4

way, in preparing their minimum-rate sheets, would hold
this point on the Central Freight Association 25-mile
scale and intermediate points, that is, those between

Cincinnati and Hamilton, would be accorded their respective distance rates not to exceed the rate to Hamilton, to observe the long-and-short-haul clause of the Act.

For example, the representative distance from Cincinnati, Ohio, to stations intermediate to Hamilton, Ohio, via the Cincinnati, Hamilton & Dayton Railway, are as follows:

MILES	STATIONS	MILES	STATIONS
2.6	Brighton, Ohio	11.8	Wyoming
3.4	Fairmount	12.8	Park Place
5.5	Cumminsville	13.6	Woodlawn
6.6	Winton Place	15.0	Glendale
7.6	Ivorydale	17.1	Crestvue
8.5	Elmwood Place	18.6	Muhlhauser
9.4	Carthage	19.2	Stockton
10.6	Hartwell	22.8	Schencks
11.2	Maplewood	24.0	Lindenwald

The rates to these stations would be published on approximately the following figures:

FROM CINCINNATI, OHIO, TO	RATES IN CENTS PER 100 POUNDS					
	Classes					
	1	2	3	4	5	6
Brighton, O. Fairmount	18.5	15.5	12.5	9.5	6.5	5
Cumminsville, O. Winton Place Ivorydale Elmwood Place Carthage	19.5	16.5	13	10	7	5.5
Hartwell Maplewood Wyoming Park Place Woodlawn Glendale	20.5	17.5	13.5	10.5	7	5.5
Crestvue Mulhauser Stockton	22	18.5	14.5	11	7.5	6
Schencks Lindenwald Hamilton	23	19.5	15.5	11.5	8	6.5

It should be understood as concerns the scaling of rates to local stations that one company does not permit another company to employ the same practice in so far as its local stations are concerned. In other words, a

joint rate from some point near Cincinnati on one of its connections to Mulhauser, for example, would be made not by applying the Central Freight Association scale for the continuous distance but by applying the authorized common-point basis; that is, we will say the Aurora (Ind.)-Hamilton (Ohio) basis, which we will assume is on a 50-mile scale and upon which would be made the rates from any point on the connection between Cincinnati and Aurora to any point on the Cincinnati, Hamilton & Dayton Railway between Cincinnati and Hamilton regardless of how much less the distance might be.

Again, particularly as concerns very short joint hauls, rates are made on full combinations, that is on local rates for the respective distances, owing to the fact that a mileage prorate of the junction point to junction-point rates does not yield a sufficient sum to cover the cost of handling.

By such means, each road is able to keep its local territory inviolate and to maintain a lower scale of rates, up to certain distances, than can competitors from the same points.

There are many instances such as was illustrated in a preceding chapter where lines are forced to forego and waive traffic between given points. The map of the Cincinnati, Hamilton & Dayton Railway indicates a number of points on the main line from Cincinnati to Toledo, and also several junction points on the Delphos division, from Dayton to Manndale, inclusive. Sidney and Versailles, for example, are on the Cleveland, Cincinnati, Chicago & St. Louis Railway, by way of which line the points are 18 miles apart, while by the Cincinnati, Hamilton & Dayton Railway, by way of Dayton, the route is 79 miles in length, while by way of Ottawa and East Manndale, it is even greater and consequently, the Cin-

cinnati, Hamilton & Dayton Railway does not attempt to meet the short-line rates at these points.

The next common point beyond Hamilton is Dayton, Ohio, and the route of the Cincinnati, Hamilton & Dayton Railway makes the short-line distance of 59 miles. Consequently, the 60-mile scale is applied under the rule that where the exact distance is not shown, the scale for the next higher distance is used. The rate to Dayton so established, as in the case of Hamilton, makes a maximum which may not be exceeded to intermediate points, and which must be observed by all Cincinnati-Dayton lines that desire to participate in the traffic.

As far as the main line of the Cincinnati, Hamilton & Dayton Railway is concerned, the same procedure is followed up to, and including, Toledo, Ohio, with the exception that at the more distant points, such as Tontogany, Deshler, Ottawa, and Lima, the actual mileage may be slightly inflated or increased. Thus, for example, while Tontogany would be entitled to a 190-mile scale under a strict application of the short-line mileage rule, the absence of direct-line competition from Cincinnati would enable the Cincinnati, Hamilton & Dayton Railway to hold this point upon the same basis as Toledo (210 miles).[2] Then, again, while Deshler apparently should receive the benefit of the 170-mile scale, the distance could be inflated from 20 to 30 miles, resulting in the application of the 190-mile or 200-mile scale, as the officials or representatives of this line may elect, for the same reasons as those advanced in the case of Tontogany.

This practice is absolutely essential, for if it were not and if, on the other hand, the actual distance were applied in each case and the long-and-short-haul clause strictly observed, an endless process of tearing down the rate structure would be brought about, resulting in a very

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[2] As there is no scale of rates for 201 miles, the distance shown on the map, rates for 210 miles would be applied.

low scale of rates, and many carriers would be compelled to forego traffic which in many cases, although yielding a low rate, contributes in no small measure to their revenues.

To appreciate competitive conditions, it may be seen from Diagram 4 that the distance to Ironton, Ohio, via the Cincinnati, Hamilton & Dayton Railway is 224 miles as contrasted with 134 miles via the Norfolk and Western Railway, which is the direct line. Consequently, the absence of direct-line competition, in so far as the Norfolk and Western Railway is concerned, enables it to hold a rate on a somewhat higher basis than would ordinarily obtain (approximately the 180-mile scale). This permits the circuitous route (the Cincinnati, Hamilton & Dayton Railway) to make its rate much higher than would be required were the Norfolk and Western Railway to observe the actual distance.

At Xenia, Ohio, may be seen a situation that frequently arises. It will be observed from the route of the Pittsburgh, Cincinnati, Chicago & St. Louis Railway that the actual distance is 65 miles (indicated by the light line) as contrasted with 79 miles via the Cincinnati, Hamilton & Dayton Railway. On the route of the former line, however, Xenia is intermediate to Dayton. As Dayton is of infinitely more importance so far as traffic is concerned, the Pittsburgh, Cincinnati, Chicago & St. Louis Railways shrinks or decreases the rate that would obtain under the actual distance at Xenia and observes the 60-mile scale that the Cincinnati, Hamilton & Dayton Railway publishes to Dayton. Consequently, as the Pittsburgh, Cincinnati, Chicago & St. Louis Railway is competing with the Cincinnati, Hamilton & Dayton Railway for Dayton business, the latter road retaliates by meeting the 60-mile scale via Dayton to Xenia. Similarly, the short line between Cincinnati and Washington Court

House or Chillicothe is the Baltimore & Ohio South-
western Railway. At Washington Court House, it makes
the rates on the 80-mile Central Freight Association scale,
while at Chillicothe the rates are held on practically
the actual distance or the 100-mile scale. In both
instances the Cincinnati, Hamilton & Dayton Railway
meets these figures.

RATES WITHIN CENTRAL FREIGHT ASSOCIATION—Continued

EQUALIZATION OF COMPETITION

In Table 3 are shown only the regular scales where the mileage is indicated. There are tariffs, however, that have from two to three hundred modifications of this scale, either increasing or decreasing the rates on one or more of the various classes. These scales are known as "split scales," a better term, perhaps, being "compromise scales," and are the result of an attempt to equalize the competition of localities, of carriers, or of commodities. The following example illustrates this:
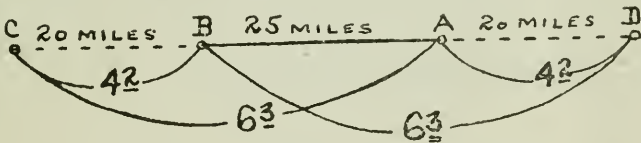
DIAGRAM 5

Let A and B represent small localities at which brick kilns are located, these points being 25 miles apart. Assume, then, that the brick moves under the sixth-class rate and that the directions of the movement are eastbound and westbound according to Diagram 5. On westbound traffic to C, which is 20 miles from the kiln located at B, B would have an advantage of 2.1 cents per 100 pounds over A, while on eastbound traffic to D the reverse would be the case. Further assuming that the industry at B is served by two lines, thus opening up to it a much larger territory than is given to A, and presuming that the territory east of A is well supplied

with brick, the field of the manufacturer operating at
A must be confined to the west, where he must compete
with the manufacturer at B. To do so on an equitable
basis, it follows that he cannot concede his rival an
advantage of 2.1 cents per 100 pounds, or 42 cents per
ton. Accordingly, he seeks out the traffic manager of
the road upon which he may be located and presents
the facts to him.

Aside from the brick kiln at A, there is little or no
traffic involved. As it is to the interest of the traffic
manager to foster and develop to the fullest extent the
industries on the lines that he represents, a compromise
scale may be decided upon by a reduction of the sixth-
class rate to the same figure as that applied from B,
maintaining the other classes on the normal basis. This
policy, while enabling the brick manufacturers to compete
on equal terms, does not disturb the rates on ordinary
merchandise traffic, because the rates for the higher
classes are not depressed but are maintained upon the
required mileage basis. For example:

Classes	1	2	3	4	5	6
B to C (20 mi.)	22	18.5	14.5	11	7.5	6
A to C (45 mi.)	27.5	23.5	18.5	14	9.5	7.5

What is true in this case is true in the case of any other
commodity, locality, or carrier. Consequently, the prac-
tice has resulted in the depression of various class rates.
This accounts for the modifications of the regular Central
Freight Association scale which may be encountered from
time to time. It may be the second-class rate in one case,
the third-class rate in another, or the sixth-class rate, as
in the illustration. The general practice, however, is to
establish specific commodity rates and not disturb the
class-rate adjustment.

To branch-line points especially, rates are generally
made on an arbitrary basis, that is, by the addition of

certain figures to a rate to a base point. For instance, the rates to French Lick Springs, Ind., from all points in Central Freight Association Territory, are made certain arbitraries over the rates that may be established under the Central Freight Association scale from the same point of origin to Orleans, Ind., and this procedure also adds to the number of scales required.

Again, in so far as the interstate movement between Indiana and Illinois, or between Indiana and Michigan, or Ohio and Michigan is concerned, the scales established by the commissions of those states, being materially higher than the Central Freight Association scale so far as short distances are concerned, disrupt the application of the Central Freight Association scale and occasion the establishment of many of the split scales, that is, scales that are different from those that would apply for the same distance if the normal Central Freight Association rates were used. To illustrate this, Diagram 6 has been prepared.
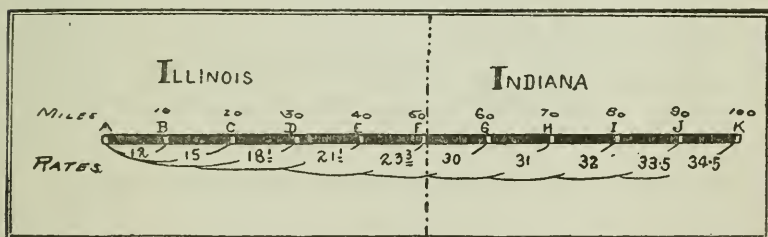
DIAGRAM 6

Stations A to F, inclusive, are assumed to be in Illinois, while the remaining stations are in Indiana. The stations in each instance are 10 miles apart. Now, assuming the movement to be eastbound, the rates to and including F would be made in conformity with the Illinois distance scale, resulting in a first-class rate from A to F of 23.3 cents per 100 pounds. The rate to G, the movement being

interstate, would be made subject to the regular Central Freight Association scale. The rate for the 60-mile distance, as encountered in this illustration, would be 30 cents, which is considerably less than the rate for the shorter intrastate movement under the Illinois adjustment. Indeed, a rate approximately as high as the intrastate rate would not be attained until J is reached, the rate thereto for a distance of 90 miles on the Central Freight Association scale being 33.5 cents.

As a result, the carriers "hold up" the rates to stations G to I on an inflated distance in order to protect their intrastate rates. Particularly will this be found true of carriers operating to or from Illinois through such junctions as Vincennes, Terre Haute, and Indianapolis, Ind., and Danville, Ill.

The practice of the carriers in this regard nullifies, to a considerable extent, the effect of the high Illinois scale and enables jobbing centers located within the state to compete on more even terms for the trade of points within the state with jobbing centers located outside thereof. From the foregoing, it will readily be seen that the Illinois jobber would be greatly handicapped by the low Central Freight Association rates on interstate business.

CLASS DIVISIONS OF THE CENTRAL FREIGHT ASSOCIATION SCALE

Prior to the adoption of the Official Classification in 1887, the scale of rates, in so far as the class divisions were concerned, varied considerably from time to time, owing to the multitude of individual classifications that were employed by the carriers. The rates from Chicago to New York ranged from four classes in 1871 to twelve classes in 1885, the present scale of six classes being adopted on April 1, 1887, when Official Classification No. 1 made its appearance.

Six was a very limited number of classes to which to assign the many and varied articles of commerce. Consequently, it was not long before additional classes were made necessary.

As the tariffs naming class rates had all been reissued to conform to the scale adopted by the Official Classification Committee, to increase the number of the class divisions specifically would have resulted in the reissuance of all of the tariffs that had been issued under the six-class scale division, entailing a large amount of labor and involving a great expense. Consequently, the plan was adopted of making the new classes certain percentages less than the existing classes and incorporating in the classification a table indicating the standard class and the class that would be made under the application of the percentage adjustment.

The first classes of this character were designated as "Rules 25 and 26" of the Official Classification, they being shown as "Rules" in the classification; the former providing for an application of a rating 15 per cent less than the second-class rate and the latter providing for a rating 20 per cent less than the third-class rate, observing third-class and fourth-class rates as minimum rates for the respective classes.[1]

The most recent addition to these classes, so far as the classification is concerned, is the Rule-28 rating, which is set forth in Table 4. This rating, however, is not made on a fixed percentage, as is the case with Rules 25 and 26, but is contingent upon 35 per cent of the difference between the third-class and fourth-class ratings. If, for example, the third-class rate were 30 cents and the fourth-class rate were 25 cents, the difference would be 5 cents per 100 pounds. In such a case 1.8 cents would be added to the fourth-class rate, making the Rule-28 rating 26.8.

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[1] Explained in the treatise on *Freight Classification.*

TABLE 4[1]

Rule 23. Articles classified subject to this Rule will be rated at fourth-class rates plus the amounts shown in the following Table of Rates, unless otherwise provided in the Tariffs of individual carriers.

TABLE OF RATES TO BE USED IN CONNECTION WITH RULE 23.

When the Difference between the 3d and 4th Class Rate is (Cents)	The Amount to be Added to the 4th Class Rate will be (Cents)	When the Difference between the 3d and 4th Class Rate is (Cents)	The Amount to be Added to the 4th Class Rate will be (Cents)	When the Difference between the 3d and 4th Class Rate is (Cents)	The Amount to be Added to the 4th Class Rate will be (Cents)	When the Difference between the 3d and 4th Class Rate is (Cents)	The Amount to be Added to the 4th Class Rate will be (Cents)	When the Difference between the 3d and 4th Class Rate is (Cents)	The Amount to be Added to the 4th Class Rate will be (Cents)	When the Difference between the 3d and 4th Class Rate is (Cents)	The Amount to be Added to the 4th Class Rate will be (Cents)	When the Difference between the 3d and 4th Class Rate is (Cents)	The Amount to be Added to the 4th Class Rate will be (Cents)	When the Difference between the 3d and 4th Class Rate is (Cents)	The Amount to be Added to the 4th Class Rate will be (Cents)
.5	.2	4.2	1.5	7.9	2.8	11.6	4.1	15.3	5.4	19.0	6.7	22.7	7.9	26.4	9.2
.6	.2	4.3	1.5	8.0	2.8	11.7	4.1	15.4	5.4	19.1	6.7	22.8	8.0	26.5	9.3
.7	.2	4.4	1.5	8.1	2.8	11.8	4.1	15.5	5.4	19.2	6.7	22.9	8.0	26.6	9.3
.8	.3	4.5	1.6	8.2	2.9	11.9	4.2	15.6	5.5	19.3	6.8	23.0	8.1	26.7	9.3
.9	.3	4.6	1.6	8.3	2.9	12.0	4.2	15.7	5.5	19.4	6.8	23.1	8.1	26.8	9.4
1.0	.4	4.7	1.6	8.4	2.9	12.1	4.2	15.8	5.5	19.5	6.8	23.2	8.1	26.9	9.4
1.1	.4	4.8	1.7	8.5	3.0	12.2	4.3	15.9	5.6	19.6	6.9	23.3	8.2	27.0	9.5
1.2	.4	4.9	1.7	8.6	3.0	12.3	4.3	16.0	5.6	19.7	6.9	23.4	8.2	27.1	9.5
1.3	.5	5.0	1.8	8.7	3.0	12.4	4.3	16.1	5.6	19.8	6.9	23.5	8.2	27.2	9.5
1.4	.5	5.1	1.8	8.8	3.1	12.5	4.4	16.2	5.7	19.9	7.0	23.6	8.3	27.3	9.6
1.5	.5	5.2	1.8	8.9	3.1	12.6	4.4	16.3	5.7	20.0	7.0	23.7	8.3	27.4	9.6
1.6	.6	5.3	1.9	9.0	3.2	12.7	4.4	16.4	5.7	20.1	7.0	23.8	8.3	27.5	9.6
1.7	.6	5.4	1.9	9.1	3.2	12.8	4.5	16.5	5.8	20.2	7.1	23.9	8.4	27.6	9.7
1.8	.6	5.5	1.9	9.2	3.2	12.9	4.5	16.6	5.8	20.3	7.1	24.0	8.4	27.7	9.7
1.9	.7	5.6	2.0	9.3	3.3	13.0	4.6	16.7	5.8	20.4	7.1	24.1	8.4	27.8	9.7
2.0	.7	5.7	2.0	9.4	3.3	13.1	4.6	16.8	5.9	20.5	7.2	24.2	8 5	27.9	9.8
2.1	.7	5.8	2.0	9.5	3.3	13.2	4.6	16.9	5.9	20.6	7.2	24.3	8.5	28.0	9.8
2.2	.8	5.9	2.1	9.6	3.4	13.3	4.7	17.0	6.0	20.7	7.2	24.4	8.5	28.1	9.8
2.3	.8	6.0	2.1	9.7	3.4	13.4	4.7	17.1	6.0	20.8	7.3	24.5	8.6	28.2	9.9
2.4	.8	6.1	2.1	9.8	3.4	13.5	4.7	17.2	6.0	20.9	7.3	24.6	8.6	28.3	9.9
2.5	.9	6.2	2.2	9.9	3.5	13.6	4.8	17.3	6.1	21.0	7.4	24.7	8.6	28.4	9.9
2.6	.9	6.3	2.2	10.0	3.5	13.7	4.8	17.4	6.1	21.1	7.4	24.8	8.7	28.5	10.0
2.7	.9	6.4	2.2	10.1	3.5	13.8	4.8	17.5	6.1	21.2	7.4	24.9	8.7	28.6	10.0
2.8	1.0	6.5	2.3	10.2	3.6	13.9	4.9	17.6	6.2	21.3	7.5	25.0	8.8	28.7	10.0
2.9	1.0	6.6	2.3	10.3	3.6	14.0	4.9	17.7	6.2	21.4	7.5	25.1	8.8	28.8	10.1
3.0	1.1	6.7	2.3	10.4	3.6	14.1	4.9	17.8	6.2	21.5	7.5	25.2	8.8	28.9	10.1
3.1	1.1	6.8	2.4	10.5	3.7	14.2	5.0	17.9	6.3	21.6	7.6	25.3	8.9	29.0	10.2
3.2	1.1	6.9	2.4	10.6	3.7	14.3	5.0	18.0	6.3	21.7	7.6	25.4	8.9	29.1	10.2
3.3	1.2	7.0	2.5	10.7	3.7	14.4	5.0	18.1	6.3	21.8	7.6	25.5	8.9	29.2	10.2
3.4	1.2	7.1	2.5	10.8	3.8	14.5	5.1	18.2	6.4	21.9	7.7	25.6	9.0	29.3	10.3
3.5	1.2	7.2	2.5	10.9	3.8	14.6	5.1	18.3	6.4	22.0	7.7	25.7	9.0	29.4	10.3
3.6	1.3	7.3	2.6	11.0	3.9	14.7	5.1	18.4	6.4	22.1	7.7	25.8	9.0	29.5	10.3
3.7	1.3	7.4	2.6	11.1	3.9	14.8	5.2	18.5	6.5	22.2	7.8	25.9	9.1	29.6	10.4
3 8	1.3	7.5	2.6	11.2	3.9	14.9	5.2	18.6	6.5	22.3	7.8	26.0	9.1	29.7	10.4
3.9	1.4	7.6	2.7	11.3	4.0	15.0	5.3	18.7	6.5	22.4	7.8	26.1	9.1	29.8	10.4
4.0	1.4	7.7	2.7	11.4	4.0	15.1	5.3	18.8	6.6	22.5	7.9	26.2	9.2	29.9	10.5
4.1	1.4	7.8	2.7	11.5	4.0	15.2	5.3	18.9	6.6	22.6	7.9	26.3	9.2	30.0	10.5

[1] This table was taken from Official Classification No. 43.

In more recent years, owing to the ever-changing demands of our internal commerce and the intensity of industrial and regional competition, there have been numerous other class divisions established. Indeed, at the present time the Central Freight Association is bend-

ing its efforts towards the elimination of specific commodity rates and towards the publication of rates based on certain percentages of existing class rates, in order to accommodate the movement of such commodities as may warrant this treatment.

This practice has been indulged in to such an extent that the Central Freight Association scale has grown from six classes to twenty-nine classes. This number includes the multiple classes, or those made certain multiples of the first-class rate, and the percentage classes, which are usually predicated on the lower divisions.

The construction of rates under this plan is peculiar to Central Freight Association Territory and is probably accounted for by the fact that the bulk of the tonnage moving in this territory is low-grade freight, and crude or raw materials. It differs materially from that moving in Trunk Line and New England Freight Association territories, as the bulk of the traffic in these territories is the manufactured or finished article, which does not require extraordinary treatment to develop and stimulate its movement. Again, the amount of eastbound tonnage greatly exceeds the westbound movement. As the volume of the traffic and the nature of the commodity are prime factors in rate-making, it is perhaps only natural that the adjustment of rates in this territory is more highly developed than that obtaining to the eastward.

TABLE 5

CLASSIFICATION OF COMMODITIES BASED ON PERCENTAGES OF
REGULAR CLASS RATES

COMMODITY	RATE		
Acid, muriatic and sulphuric....................	90	% of fifth	class
Arsenic, crude, and arsenic, white, min. wt. 50,000 lbs.		83.33% of sixth	class
Ash, volcanic, C. L., min. wt. 40,000 lbs..........	80	% of sixth	class
Barytes, C. L., min. wt. 40,000 lbs..............	90	% of sixth	class
Cake, nitre. C. L., min. wt. 40,000 lbs...........	85	% of sixth	class
Clays and silicates, min. wt. 40,000 lbs..........	80	% of sixth	class

TABLE 5—Continued

CLASSIFICATION OF COMMODITIES BASED ON PERCENTAGES OF REGULAR CLASS RATES

COMMODITY	RATE		
Furniture, C. L., viz.: beds, folding; church furniture, N. O. S.; cupboards, wooden; desks, S. U.; furniture, new; and tables, N. O. S., min. wt. 20,000 lbs...................................	126	% of fourth	class
Limestone, agricultural, C. L., min. wt. 50,000 lbs.	60	% of sixth	class
Manure and street sweepings, C. L., min. wt. 40,000 lbs...................................		73.33% of sixth	class
Rock, gypsum, crushed, not ground, and rock, gypsum, run-of-mine, C. L., min. wt. marked capacity of car....................................		73.33% of sixth	class
Sacks or bags, cement or plaster, empty, returned, L. C. L....................................	50	% of third	class
Salt, C. L., in barrels, boxes, bulk, or in sacks, straight or mixed, min. wt. 37,500 lbs., when originating at points south of the Ohio River and west of St. Louis, Mo....................	75	% of sixth	class
Sulphur, unground, crude, originating south of the Ohio River and west of the Mississippi River, C. L., min. wt. 30,000 lbs.....................	65	% of sixth	class

There are a great many other commodities that take the same ratings as some of those shown in Table 5, but it is not deemed advisable to incorporate them in a treatise of this character. Reference to the exceptions of the Central Freight Association will give those who so desire a further insight as to such commodities.

While, as before stated, the practice has been heretofore to issue class-rate tariffs and simply show the six classes, the Interstate Commerce Commission now requires that all classes, whether they are based on a multiple of first class or on a percenatge of the regular classes, must be indicated in the tariff publications. The reason for this is obvious, inasmuch as it makes it unnecessary for the user of the tariff publication to refer to several issues or to make computations to ascertain the rate that he is seeking.

The ever-increasing development of manufacturing lines in this territory has had much to do with the expan-

sion of the original scale. To many students of uniform classification the only solution of harmonizing the class divisions of the several classifications seems to hinge upon the adjustment of rates employed in Central Freight Association Territory.

It should be understood, in connection with the minimum-rate sheets or basing books, that when the rates have once been agreed upon and established, the individual lines arrange for their publications and the rates may not be increased or decreased except by notice to the competing lines. Even under an agreement, the rates may not be advanced or lowered if they are going to affect points in the immediate vicinity.

Following the petition of the Central Freight Association carriers for an increase in freight rates in the year 1914, the Commission, in granting the petition, called attention to the many irregularities that exist in the present adjustment of Central Freight Association points, many points being "out of line" or on a higher or lower basis than is warranted by the conditions obtaining. It was suggested at this time that the carriers arrange for a recheck of the entire territory, putting each point of origin as concerned points of destination upon the proper basis and preserving its advantage of location as contrasted with other points of origin where the conditions warranted.

This, however, is no small task and it is not anticipated that it will be possible to complete the work for some time to come. Two plans have been suggested: One is to take one point of origin and check in a line of rates to all points of destination within the territory, while another plan contemplates the reverse of this by taking all points in the territory and checking in rates to one point of destination, involving in each instance a revision of the mileage employed.

Now that many of the alleged railroad abuses have

been corrected, it is not unlikely that more attention will be paid to the unification of state legislation and state-prescribed rates, rules, and regulations governing the transportation of intrastate traffic. If this is accomplished before the recheck of the territory is consummated, it is not unreasonable to anticipate that a scale of transportation charges will be established upon a much more scientific and equitable basis than obtains at the present time. The dictates of reason, however, indicate that the entire rate structure cannot be readjusted in so short a period without creating some disadvantages or eliminating some advantages which are or are not at this time possessed by individual localities.

Commodity Rates

In addition to the Central Freight Association scale of class rates, certain commodity rates have been established on a scale basis. These rates are to be used only in the absence of specific rates and as the basis of publishing tariffs between specific points, and where applied to joint hauls, it is necessary to secure the concurrence of the participating lines before rates may be established.

The following table indicates rates on a number of the commodities which are so treated:

TABLE 5A

Central Freight Association Scaled Commodity Rates in Cents per 100 Pounds

Distances	Drain Tile[1]	Grain & Grain Products[2]	Ice[3]	Lime[4]	Logs[5]	Sand Gravel[6]	Stone[7]	Straw[8]
5 miles or less...............	3	4.5	2.5	4.5	4.5	3.5	5	5.5
10 miles and over 5.........	4	5.5	3.5	4.5	4.5	4	5	5.5
15 " " " 10.........	4	6.5	3.5	5	5.5	4	5.5	5.5
20 " " " 15.........	4.5	7	4	5	5.5	4.5	5.5	6.5
25 " " " 20.........	4.5	7.5	4	6	6	4.5	6.5	7
30 " " " 25.........	5.5	7.5	4.5	6	6	5.5	6.5	7.5
35 " " " 30.........	5.5	8	4.5	6.5	6	5.5	7	8

TABLE 5A—Continued

CENTRAL FREIGHT ASSOCIATION SCALED COMMODITY RATES IN CENTS PER 100 POUNDS

DISTANCES	COMMODITIES	Drain Tile[1]	Grain & Grain Products[2]	Ice[3]	Lime[4]	Logs[5]	Sand Gravel[6]	Stone[7]	Straw[8]
40 " " "	35.........	5.5	8	4.5	6.5	6	5.5	7	9
45 " " "	40.........	6.5	9	5.5	7	6.5	6	7.5	9
50 " " "	45.........	6.5	9	5.5	7	6.5	6	7.5	10
55 " " "	50.........	6.5	10	5.5	7	7	6	7.5	10
60 " " "	55.........	6.5	10	5.5	7.5	7	6	8	10
65 " " "	60.........	6.5	10.5	5.5	7.5	7	6	8	10.5
70 " " "	65.........	6.5	10.5	5.5	7.5	8	6	8	10.5
75 " " "	70.........	6.5	10.5	5.5	8	8	6	8.5	10.5
80 " " "	75.........	6.5	11.5	5.5	8	8	6	8.5	11.5
85 " " "	80.........	6.5	11.5	5.5	8	8.5	6	8.5	11.5
90 " " "	85.........	6.5	11.5	5.5	8.5	8.5	6	9	12
95 " " "	90.........	6.5	11.5	5.5	8.5	8.5	6	9	12
100 " " "	95.........	6.5	12	5.5	8.5	8.5	6	9	12
105 " " "	100.........	7	12	6	8.5	9	6.5	9	12
110 " " "	105.........	7	12	6	9.5	9	6.5	10	12
115 " " "	110.........	7	12	6	9.5	9	6.5	10	12
120 " " "	115.........	7	12	6	9.5	9	6.5	10	12
125 " " "	120.........	7	12	6	9.5	9	6.5	10	12.5
130 " " "	125.........	7	12.5	6	10	10	6.5	10.5	12.5
135 " " "	130.........	7	12.5	6	10	10	6.5	10.5	12.5
140 " " "	135.........	7.5	12.5	6.5	10	10	7	10.5	12.5
145 " " "	140.........	7.5	12.5	6.5	10	10	7	10.5	12.5
150 " " "	145.........	7.5	12.5	6.5	10.5	10	7	11	12.6
155 " " "	150.........	7.5	14	6.5	10.5	10.5	7	11	14
160 " " "	155.........	7.5	14	6.5	10.5	10.5	7	11	14
165 " " "	160.........	7.5	14	6.5	10.5	10.5	7	11	14
170 " " "	165.........	7.5	14	6.5	10.5	10.5	7	11	14
175 " " "	170.........	7.5	14	6.5	11	10.5	7	11.5	14
180 " " "	175.........	7.5	14	6.5	11	11	7	11.5	14
185 " " "	180.........	7.5	14	6.5	11	11	7	11.5	14.5
190 " " "	185.........	8	14	7.5	11	11	7.5	11.5	14.5
195 " " "	190.........	8	14	7.5	11	11	7.5	11.5	14.5
200 " " "	195.........	8	14	7.5	11.5	11	7.5	12	14.5
205 " " "	200.........	8	14.5	7.5	11.5	12	7.5	12	15
210 " " "	205.........	8	14.5	7.5	11.5	12	7.5	12	15
215 " " "	210.........	8	14.5	7.5	12.5	12	7.5	13	15
220 " " "	215.........	10	15	9	13.5	12	9	14	15
250 " " "	220.........	10	15	9	13.5	12	9	14	15.5
270 " " "	250.........	10	15	9	13.5	13	9	14	17
275 " " "	270.........	10	15	9	13.5	13	9	14	17

[1] Applicable on porous drain tile in carloads of 30,000 pounds minimum weight, but not applicable on shipments of vitrified pipe or tile.
[2] Minimum weight as per the Official Classification.
[3] Applicable between points in the southern peninsula of Michigan. Minimum carload weight is 40,000 pounds.
[4] Applicable on butts, handle bolts, heading bolts, logs, stave bolts,

in carloads of 40,000 pounds minimum weight, also applicable on saw-
dust and shavings in carloads of 35,000 pounds minimum weight.
    ⁵ Applicable on carloads of gravel and sand (building and filling).
Minimum carload weight is 50,000 pounds except where the marked
capacity of the car is less, in which event the marked capacity of the
car will be the minimum weight.
    ⁶ Applicable on stone, namely, crushed, rough, (not dimension) rubble,
riprap, and quarry scrap.   Minimum carload weight is 40,000 pounds
except where the marked capacity of the car is less, in which event the
marked capacity of the car will be the minimum weight.
    ⁷ Applicable on straw (for use of manufactures only), in carloads of
20,000 pounds minimum weight and in cars 36 feet or less in length.
Rule 27 of Official Classification is to apply to cars of greater dimensions.

In the event that there is a local committee at the
junction point from which it is desired to establish rates
under the foregoing scale, the establishment of rates
should be taken up with the chairman of the local com-
mittee in order to enable other roads to establish the
same rates to the same points or to other points on their
own line similarly situated.

It will be noted from the foregoing table that the rates
on some commodities are not shown above certain dis-
tances and, as a rule, it may be stated that these com-
modities do not move to any extent above such distances.
The commodities being commonly produced throughout
the territory and of a very low value, prevent their mov-
ing long distances, and also the consuming points pur-
chase them in the nearest available market which rarely
is over 100 miles distant.

The low rate on logs may be accounted for by reason
of the fact that the carriers have in mind when these
logs are dressed and milled, namely, that the products
will be shipped from the mill at *lumber* rates that are
somewhat higher and which will move much further
distances.

CHAPTER IV

THE CHICAGO AND OHIO RIVER RATE ADJUSTMENT

In connection with the study of rates in Central Freight Association Territory, the rates between Chicago and the Ohio River Crossings are here considered, as they represent a modification of the Central Freight Association scale. These rates illustrate the fact that distance is not at all times a controlling influence in fixing the bases of rates in Central Freight Association Territory but that competitive conditions oftentimes intervene and compel a disregard of distance. This is true of the rates applied upon *local* traffic to or from the Ohio River Crossings and those applied upon traffic destined to or coming from points beyond these crossings.

A reason for the departure from the Central Freight Association scale of rates will be found in the following example: Cairo, Ill., is in Illinois Freight Committee Territory, and neither Milwaukee, Wis., nor Chicago, Ill., are in Central Freight Association Territory on traffic destined to the south or southeast through Cairo, Ill. In order to keep all gateways from Cincinnati, Ohio, to Cairo, Ill., on a parity, the officials of the Illinois lines and the Chicago and Ohio River lines (to Cincinnati and Louisville) who are also members of the Central Freight Association convene as the Chicago and Ohio River Freight Committee and legislate independently of the Central Freight Association or the Illinois Freight Committee.

The so-called Ohio River Crossings,[1] proper, are
points located on the river at which there are bridges
that permit the physical connection and interchange of
traffic between northern and southern lines. There are,
however, points where there is no bridge, and traffic is
interchanged by means of ferries or car-floats (Brookport
and Metropolis, Ill., and Paducah, Ky.) and crossings
that simply mark the connection of the rail lines with
the boat lines operating upon the river (Rockport and
Madison, Ind., Shawneetown, Ill., etc.).

A distinction is made in the river crossings as to their
location, that is, whether they are north-bank crossings
or south-bank crossings. According to the direction of
the traffic, the rates to the crossings on the opposite side
of the river are sometimes made certain arbitraries
(which amounts represent the bridge tolls) higher than
the rates to the nearer crossings. Through the Ohio
River Crossings (or Gateways, as they are sometimes
called) an immense volume of traffic is interchanged
annually between carriers operating in the respective
territories lying north and south of the river.

Primarily, the South is an agricultural and mineral
region and, until recent years, manufacturing was not
engaged in to an appreciable extent. The great bulk of
traffic originating in the southern states consists of cot-
ton, fruits, vegetables, iron ore, phosphate, mica, naval
stores, sugar, molasses, rice, and forest products. These
natural products are exchanged for the manufactured
products of the North. In so far as this country is con-
cerned, the northern states have always been the most
convenient market for the distribution of the products of
the South.

To supply the South with their needs in the line of
textiles, machinery, vehicles, etc., all the manufacturing

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[1] See Traffic Glossary.

and producing centers of the North are pitted one against the other for this trade. As transportation costs frequently fix the purchase point, it is not surprising that the western lines have placed the adjustment of rates to the markets of the South under the supervision of a special committee known as the Chicago and Ohio River Committee. The functions of this committee are to supervise the publication of such rates as are agreed upon by the member lines and to entertain propositions from members, shippers, or consignees relative to the adjustment of rates, etc., necessary to enable them to compete on equitable terms with those more advantageously located.

As fully explained in the treatise devoted to rate construction in Southern Territory,[2] the eastern section of Official Classification Territory, usually described as "Seaboard Territory," embracing that area lying east of an imaginary line drawn from Buffalo, N. Y., through Pittsburgh, Pa., to Wheeling, W. Va., and thence to Charleston, W. Va., has a very low scale of rates to points in Southern Territory on account of the numerous available waterways and the many navigation companies that are engaged in the traffic. Consequently, if the western lines, together with their connections, did not do something to relieve this situation, it is likely that the western manufacturer would be unable to compete with competitors situated in the East. Likewise, the western carriers would suffer through diminished tonnage.

This is readily seen by assuming that two manufacturers are engaged in the same line of business, one located at some point adjacent to the seaboard, with available water transportation, and the other manufacturer located in the interior, relying solely on the rail lines. If the water lines afford the former a freight rate some 20

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[2] See *Freight Rates: Southern Territory.*

or 25 cents per 100 pounds less than the rate conceded the interior manufacturer by the rail lines (assuming the cost of production in each plant to be the same), the eastern manufacturer can quote to prospective purchasers in Southern Territory a price as much less than the price quoted by his competitor as the difference in the current rates of transportation from the respective plants to destination.

For example, the rate on canned goods from Baltimore to Atlanta, Ga., via the rail and water routes might be 36 cents per 100 pounds, while from Indianapolis, Ind., to Atlanta, Ga., the local combination might be 56 cents, exceeding the eastern market rate by such an extent as to preclude the possibility of competition, but by the establishment of proportional rates each of the western roads shrinking their local rates to some extent, the greater part of this advantage may be overcome.

While, in the case of the higher grade of manufactured articles, the difference in existing charges from one territory as contrasted with another might not exert a controlling influence in the case of other traffic, particularly grain, grain products, and other food-stuffs, a difference of a cent or even less is frequently sufficient to control the market in which the purchase is made.

In addition to the through traffic, the Chicago and Ohio River Committee is also delegated by the member lines to publish the rates from and to Ohio River Crossings, to and from Chicago and related points on local traffic. As a thorough understanding of the local adjustment will materially assist in following the proportional adjustments (traffic coming from, or going beyond), it will be taken up first.

Diagram 7 has been prepared to show some of the peculiarities of this particular rate structure in so far as routes and various distances are concerned.
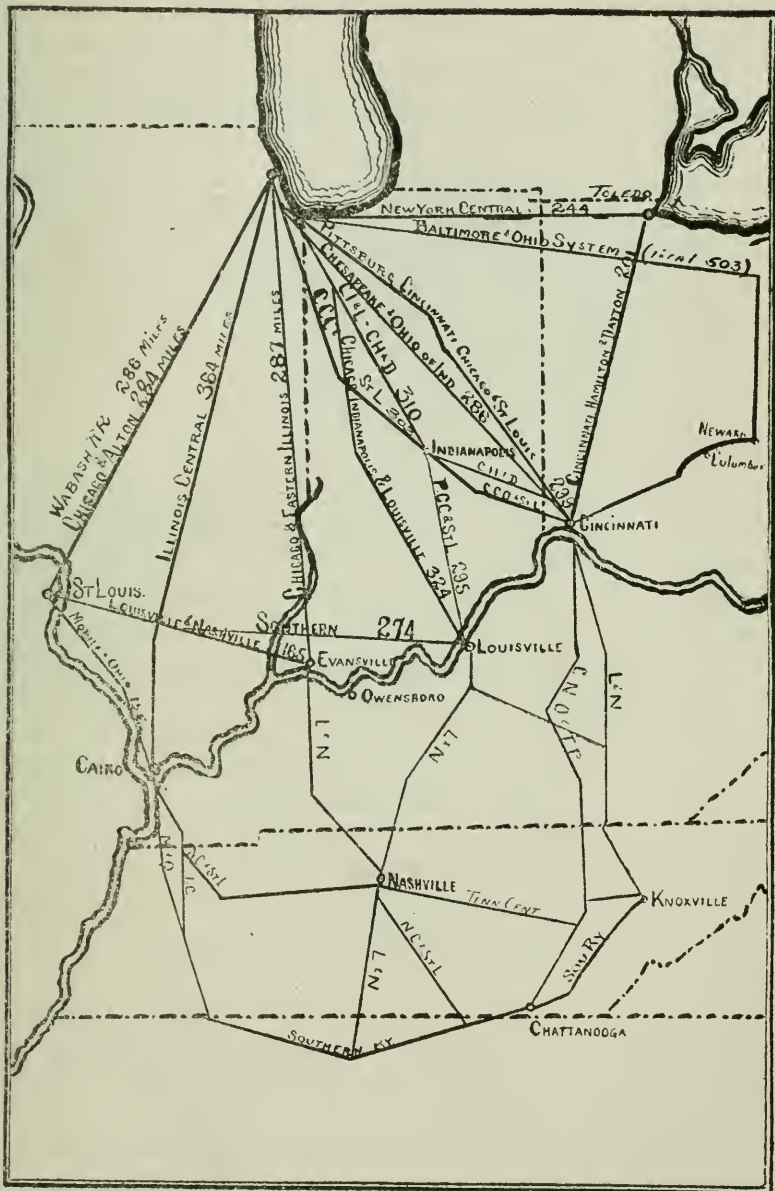
DIAGRAM 7

EQUALIZATION OF DISTANCES

The following indicates the disparity in the distance via several routes from Chicago to Cincinnati, Ohio:

NAME OF ROAD	MILEAGE
Pittsburgh, Cincinnati, Chicago & St. Louis Ry..	299
Chesapeake & Ohio Ry. of Indiana............	286
Cleveland, Cincinnati, Chicago & St. Louis Ry...	303
Chicago, Indianapolis & Louisville Ry. and Cincinnati, Hamilton & Dayton Ry. (via. Indianapolis, Ind.).............................	310
New York Central R. R. and Cincinnati, Hamilton & Dayton Ry. (via Toledo, Ohio)............	445
Baltimore & Ohio System (via Chicago Junction and Newark, Ohio)........................	503

The circuitous routes (those involving the longer haul) usually take no action in the making of rates, this matter resting with the direct lines. Hence, if they decide to engage in the traffic, they must meet the competition and apply the same rates as the direct lines. In accordance with this principle, the rates from Chicago to Cincinnati via the Baltimore & Ohio System and via the Pittsburgh, Cincinnati, Chicago & St. Louis Railway are the same, although the former route is two hundred and more miles longer than the latter. There is a limit, of course, where this procedure would not be advantageous to the carriers, in that a route involving a haul over several lines might be so long as to be non-workable.

In the illustration just cited, all the money received accrues to one system. A haul of this kind, however, over two lines, one of which, say, is 400 miles in length and the other 103 miles, would result in a division of earnings of approximately 80 per cent for the longer line and 20 per cent for the short line, which revenue, particuarly so far as the shorter line is concerned, would hardly cover actual transportation expense. Sometimes, however, the short-line demands arbitrary divisions, which

are much in excess of what would accrue to them under a "mileage prorate."

Likewise, as the feature of time has come to be an important factor in the selection of routes, the longer lines necessarily enjoy but a comparatively small portion of the traffic. Their existence, however, is greatly appreciated at times by the shipping public, particularly when, through an accumulation of traffic, the direct lines are compelled to place embargoes with respect to the traffic, that is, decline to accept any for shipment until the accumulation on hand has been disposed of.

Local Class Rates

In the establishment of local rates, the Ohio River Crossings are grouped into two divisions—the upper and the lower Ohio River Crossings. The Indiana-Illinois state line marks the division.

In arriving at the rates from Chicago to the upper Ohio River Crossings (Evansville, Ind., to Cincinnati, Ohio, inclusive) it becomes necessary to determine the short-line distance to each of the crossings involved, which, as may be seen from Diagram 7, is 287 miles from Chicago to Evansville, Ind.; 295 miles to Louisville, Ky.; and 286 miles to Cincinnati, Ohio.

As the rule for the application of the Central Freight Association scale states that when the rate for the exact distance is not shown, that for the next greater distance is to be used, and as the distances in each case exceed 275 miles, the scale for 300 miles (the next higher) would be applied.

Consequently, the higher classes will be found to be on the 300-mile Central Freight Association scale.[3]

The current rates in effect on local traffic to the upper Ohio River Crossings are reproduced, as a matter of convenience, in Table 6.

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[3] See Table 3.

TABLE 6

Local Class Rates to the Upper Ohio River Crossings

FROM	TO	Rates[1] in Cents per 100 Pounds								
		Classes								
		1	2	3	4	5	6	R25	R26	R28
Chicago, Ill.	Indianapolis, Ind...	45	38.5	30	22.5	16	12.5	32.5	24	25
	Cincinnati, Ohio.. ⎰ Evansville, Ind... ⎱	51	43.5	34	25.5	18	14.5	37	27	28.5
	Jeffersonville, Ind ⎰ New Albany, Ind.. ⎱	52	44	35	26	18	14.5	37.5	28	29
	Louisville, Ky.....	53	45	36	27	19	15.5	38.5	29	30
	Owensboro, Ky....	58.5	50	39	30.5	21	17.5	42.5	31	33.5
Milwaukee, Wis.	Indianapolis, Ind..	51	43.5	34	25.5	18	14.5	37	27	28.5
	Cincinnati, Ohio.. ⎰ Evansville, Ind... ⎱	57	48.5	38	28.5	20	16.5	41	31	32
	Jeffersonville, Ind ⎰ New Albany, Ind. ⎱	58	49	39	29	20	16.5	41.5	31	32.5
	Louisville, Ky.....	59	50	40	30	21	17.5	42.5	32	33.5
	Owensboro, Ky....	64.5	55	43	33.5	23	19.5	47	34.5	37

[1] Governed by the Official Classification.
[2] The rates shown from Milwaukee, Wis., to Cincinnati, Ohio, also apply via lake-and-rail routes in connection with the Grand Trunk Railway System, Pere Marquette Railroad, and Pere Marquette Line Steamers. On traffic consigned through to destination from points beyond Milwaukee, the same rates as apply from Chicago apply from Milwaukee via the lake-and-rail routes.

From Table 6 it will be observed that, so far as the destinations from Chicago are concerned, the north-bank points are grouped and that the same scale of rates is applied to all of them. The rates to Louisville, Ky., a south-bank point, are made generally 1 cent per 100 pounds higher than the rates to the north-bank crossings, Jeffersonville or New Albany, Ind., this difference being the amount of the bridge toll assessed on all traffic crossing the river at this point.

The establishment of rates to Owensboro, Ky., under this adjustment is occasioned by the fact that the Louisville, Henderson & St. Louis Railway, a south-bank line operating between Evansville and Louisville, with its northern connections, is in competition by way of Louisville for traffic to Evansville, and by way of Evansville

for traffic to and from Louisville. Owensboro is but a
short distance from Rockport, Ind., a terminus of the
Southern Railway on the north bank. Owing to the exist-
ence of active water competition, the rates to Owensboro
are lower than they would naturally be were it not for
these conditions. Consequently, the rates are at this
time adjusted on the following scale of differentials over
the rates established to Evansville, Ind.:

Classes	1	2	3	4	5	6
Differentials	7½	6½	5	5	3	3

As will be seen from Table 6, the Chicago and Ohio
River Committee also publishes rates to Indianapolis,
Ind.   The reason for this is that the tariff-issuing
agencies of the southern lines frequently establish
through rates from the so-called Indianapolis group of
stations to destinations in Southern Territory and by
the establishment of rates to Indianapolis by the Chi-
cago and Ohio River Committee rates may be constructed
on a combination basis. Similarly, the application of
the rates to the Ohio River Crossings is drawn back in
some cases so far as to fix, in a great measure, the scale
of rates applied to Indianapolis.

As to points of origin, it will be observed that rates
are established from Milwaukee and points taking the
same rates by adding specified differentials over the
Chicago rates. These differentials are not based on dis-
tance. Under the original adjustment, which was in effect
prior to the advance in rates in Official Classification Ter-
ritory, the rates from Milwaukee were made the following
differentials over the Chicago rates:

Classes	1	2	3	4	5	6
Differentials	6	5	4	3	2	2

The Chicago rates which were in effect at that time
were as follows:

Classes	1	2	3	4	5	6
Rates	42	34	25	17	15	12

The current scales, however, show that the extent of these differentials has been increased under the advanced rates, inasmuch as the differentials in effect at this time are as follows:

Classes	1	2	3	4	5	6
Differentials	6.3	5.2	4.2	3.2	2.1	2.1

These figures or differentials are very much less than the local rates that apply between Chicago and Milwaukee and are designed to equalize the competition of these respective markets in so far as this traffic is concerned.

Local Commodity Rates

The tariff publications of this committee are quite complete and, in addition to the class rates applying to the Ohio River·Crossings, contain all the commodity rates authorized by the member lines of this association, thus eliminating the necessity of referring to other issues for this information.

A representative line of commodity rates, indicating the form in which they are published, appears in Table 7.

Table 7 indicates the method of establishing commodity rates under percentages of existing class rates, as mentioned in an earlier chapter.

The rates shown therein on muriatic acid, for example, are based on 90 per cent of the fifth-class rates shown in Table 6; the rates on sulphate of alumina are based on 90 per cent of the sixth-class rates; on crude arsenic, 83.33 per cent of the sixth-class rates; on asphaltum and asphaltum substitutes, 90 per cent of the sixth-class rates.

It will be observed that the relative differences are maintained in the commodity adjustments; that is, the rates are the same proportion higher as the class rates from or to the same points.

TABLE 7

LOCAL COMMODITY RATES TO UPPER OHIO RIVER CROSSINGS

COMMODITY RATES In carloads, except as otherwise provided for herein.	IN CENTS PER 100 LBS. (except as noted) FROM							
	CHICAGO, ILL., and stations taking same rates. TO				MILWAUKEE, WIS., and stations taking same rates. TO			
	Indianapolis, Ind.	Cincinnati, Ohio Evansville, Ind. Jeffersonville, Ind. Madison, Ind. New Albany, Ind.	Louisville, Ky.	Owensboro, Ky.	Indianapolis, Ind	Cincinnati, Ohio Evansville, Ind. Jeffersonville, Ind. Madison, Ind. New Albany, Ind.	Louisville, Ky	Owensboro, Ky.
	and points taking same rates							
Acid, Muriatic and Sulphuric, C. L., in tank cars, also Sulphuric and Nitric Acid, mixed C. L., in tank cars, minimum weight full gallonage capacity of tank................	10.9	14.2	15.1	17.2	12.8	16.1	17	19.1
Alumina, Sulphate of, C. L., in bags, barrels, casks, slabs or in bulk, minimum weight 40,000 lbs..........................	8.6	11.3	12.2	14.3	10 4	13.2	14.1	16 2
Ammoniacal Liquors, Aqua Ammonia, in tank cars, minimum weight full gallonage capacity of tank, C. L.	10.9	14.2	15.1	17.2	12.8	16.1	17	19.1
Annealing Pots, Burnt, C. L., minimum weight 20 gross tons, per gross ton......	132	.....	.....	250	174	.....	.....	292
Articles of Concrete Manufacture, reinforced or steel-faced, viz: Cribbing, Curbing, Piling, Poles, Posts and Sills, C. L., minimum weight 40,000 lbs................	9.5	12 6	13.6	15 6	11.6	14.7	15.7	17.7
Asphalt Rock, C. L., minimum weight 25 gross tons, unless marked capacity of car is less, in which case the marked capacity of car will govern; but in no case is the minimum weight to be less than 15 gross tons, per gross ton...................	.....	.....	.....	228	174	210	220	270
Asphaltum and Asphaltum Substitutes, classified N. O. S. in Official Classification, in barrels, cakes, drums (iron), sacks or in tank cars, Minimum weight: in packages specified, 40,000 lbs.; in tank cars as per Official Classification...................	7.6	10.1	10.9	13.1	9.3	11.8	12.6	14.8
Automobile Engine or Gear Parts, N. O. S., Iron, Steel, Brass, Bronze or Copper, racked in cars, C. L., minimum weight 30,000 lbs........................... Note.—Applies only from stations on L. E. & W. R. R.	11.5	.....	.....	.....	.....	.....	.....	.....

Lower Crossings

As Chicago and Chicago rate points in Illinois and the lower Ohio River Crossings (Cairo, Gale, Metropolis, and Brookport, Ill.) are in the same state and as the rates are subject to the rules and regulations announced by the Public Utilities Commission of Illinois, the same procedure as previously indicated cannot be followed with respect to the rates applicable upon local traffic from or to these crossings. These rates are made in conformity with the distance scale announced by the state commission and are governed by the Illinois Classification. The rates currently in effect are as follows:

Classes	1	2	3	4	5	6	7	8	9	10
To Cairo, Ill.....	46.6	38.4	30.5	23.9	19.1	18.3	16.9	14.7	11.9	10.7
To Metropolis, Ill.	47.4	39.1	31.3	24.4	19.5	18.8	17.3	15	12.2	11

In some instances, owing to the difference in classification rating, the rates from Chicago to Cairo, for example, might be much higher than the rates applicable upon the same consignment to one of the upper Ohio River Crossings.

So far as Illinois traffic is concerned, the rates are not blanketed to cover large areas of territory, as is the case in the rates to the upper Ohio River Crossings, but the respective lines scale their rates according to the actual distance from the point of origin to the point of destination.

Similarly, the commodity-rate adjustment is curtailed to a great degree, the list of commodity rates established by the Illinois lines to the lower crossings being by no means as voluminous as that established to the upper crossings.

THE CHICAGO AND OHIO RIVER ADJUSTMENT—Continued

GROUPING OF POINTS OF ORIGIN

The association having determined the measure or scale of rates to be applied from Chicago to the various crossings, it remains for the member lines of the association to indicate to what extent the application of these rates shall be extended, that is, from and to what additional points the rates are to be applied.

In Table 8 have been grouped the initial Chicago and Milwaukee lines, together with the groups of stations from which the Chicago and Milwaukee rates have been authorized to apply.

TABLE 8

POINTS OF ORIGIN

Chicago Rates

NAME OF RAILROAD	STATIONS
Baltimore & Ohio R. R.	Chicago, Ill., to Gary, Ind., inclusive
Baltimore & Ohio Chicago Terminal R. R.	Chicago, Ill., to Grasselli, Ind., inclusive
Belt. Ry. of Chicago	Argo to West Chicago, Ill.
Chesapeake & Ohio Ry. of Indiana	Chicago, Ill., to Griffith, Ind.
Chicago & Alton R. R.	Chicago to Argo, Ill.
Chicago & Eastern Illinois R. R.	Chicago, Ill., to Wellington, Ill.
Chicago & Erie R. R.	Chicago, Ill., to Griffith, Ind.
Chicago & Illinois Western R. R.	Gary, Hawthorne, McCook, and Willow Springs, Ill.
Chicago & North Western Ry.	Chicago to Proviso, Ill.; Maplewood to Des Plaines, Ill.; Deering to Rogers Park, Ill.; Cragin, Ill., to Greenwood St. (Chicago)
Chicago, Indianapolis & Louisville Ry.	Chicago, Ill., to Hammond, Ind.; Michigan City to South Wanatah, Ind.
Chicago, Milwaukee & Gary Ry.	Aurora to Delmar, Ill.
Chicago, Milwaukee & St. Paul Ry.	Chicago to Edgebrook, Ill.; Buena Park to Rogers Park, Ill.; Deering to Mannheim, Ill.
Chicago River & Indiana R. R.	Chicago, Ill.
Chicago, Rock Island & Pacific Ry.	Chicago to Blue Island and Morgan Park, Ill.
Chicago, Terre Haute & Southeastern Ry.	Chicago to Delmar, Ill.

TABLE 8—Continued

Points of Origin

NAME OF RAILROAD	STATIONS
Cleveland, Cincinnati, Chicago & St. Louis Ry.	Chicago to Blue Island, Ill.; Seneca to Essex, Ill.; Benton Harbor, Mich., to Goshen, Ind.
Elgin, Joliet & Eastern Ry.	Porter, Ind., to Barrington, Ill.; South Wilmington to Caton Farm, Ill.
Graham & Morton Transportation Co.	St. Joseph and Benton Harbor, Mich.
Grand Trunk Ry. System	Chicago, Ill., to Granger, Ind.
Illinois Central R. R.	Chicago to Harvey, Ill.; Cheltenham to Blue Island, Ill.
Indiana Harbor Belt R. R.	All stations
Lake Erie & Western R. R.	Michigan City to Tyner, Ind.
Michigan Central R. R.	Chicago, Ill., to Niles, Mich.; Joliet, Ill., to Benton Harbor, Mich.
Minneapolis, St. Paul & Sault Ste. Marie Ry.	Chicago to Des Plaines, Ill.
New York Central R. R.	Chicago, Ill., to Goshen, Ind.; Chicago, Ill., to Danville, Ill.; South Bend, Ind., to Howe, Ill.
New York, Chicago & St. Louis R. R.	Chicago, Ill., to Wheeler, Ind.
Pennsylvania Co.	Chicago, Ill., to Wheeler, Ind.; Bernice, Ill., to East Chicago, Ind.
Pere Marquette Ry.	Chicago, Ill., to Benton Harbor, Mich.; Thomaston, Ind., to Belfast, Ind.; Scotdale to Buchanan, Mich.
Pittsburgh, Cincinnati, Chicago & St. Louis Ry.	Chicago, Ill., to Hartsdale, Ind.
St. Joseph Steamship Co.	St. Joseph, Mich.
Vandalia R. R.	South Bend, Nutwood, Lakeville, La Paz Junction, and Harris, Ind.
Wabash Ry.	Chicago, Ill., to Lakeville, Ind.; Western Indiana Junction, Ind., to Manhattan, Ill.

Milwaukee Rates

Chicago & North Western Ry.	Evanston, Ill., to Bay View, Wis.; Milwaukee and White Fish Bay, Wis.; Blodgett, Techny, Northfield, and Niles Center, Ill.
Chicago, Milwaukee & St. Paul Ry.	Racine to Dover, Wis. Burlington to Templeton, Wis.
Chicago, Racine & Milwaukee Lines Steamers	Milwaukee, Wis.
Elgin, Joliet & Eastern Ry.	Lake Zurich to Waukegan, Ill.
Goodrich Transit Co.	Milwaukee and Racine, Wis.
Grank Trunk Ry. System	Milwaukee, Wis., via across-lake route
Hill Steamboat Line	Kenosha, Wis., and Waukegan, Ill.
Minneapolis, St. Paul & Sault Ste. Marie Ry.	Feehanville, Ill., to Milwaukee, Wis., inclusive
Pere Marquette Ry.	Milwaukee, Wis., via across-lake route

In so far as this procedure is concerned, there is a lack of uniformity. This is evidenced by the fact that the Chicago, Indiana & Southern Railroad (now part of the New York Central Railroad) extends the Chicago adjustment as far south as Danville, Ill., and from South Bend, Ind., on the east, to and including Howe, Ill. (which is near Streator), on the west. Likewise, the New York Central Railroad extends the application to and including Goshen, Ind., on the east. On the other hand, the Baltimore & Ohio System, which may be considered a competitor of the former, extends the application to Gary, Ind., which is in the switching limit of Chicago.

This does not mean, however, that the Baltimore & Ohio System does not extend the Chicago rates as far east as the New York Central Railroad, but that it has not placed the publication of the rates from all its stations included in this group under the jurisdiction of this committee, preferring to arrange for the publication of rates from additional points itself.

GROUPING OF POINTS OF DESTINATION

The same course is followed with respect to points of destination, the application of the Cincinnati rates being extended, so far as the terminal lines are concerned, to include stations at no small distance from Cincinnati or other Ohio River Crossings. The list of the groupings appears in Table 9.

TABLE 9

POINTS OF DESTINATION
Cincinnati Rates

NAME OF RAILROAD	STATIONS
Baltimore & Ohio Southwestern R. R.	Aurora, Ind., to Loveland, Ohio, inclusive; Butlerville to Cochrane, Ind., inclusive
Chesapeake & Ohio Ry.	Covington, Dayton, Newport, and Bellevue, Ky.

TABLE 9—Continued

POINTS OF DESTINATION

NAME OF RAILROAD	STATIONS
Chesapeake & Ohio Ry. of Indiana	Cincinnati, Brighton, Summit, Bridgetown, and Miami, Ohio
Cincinnati, Hamilton & Dayton Ry.	Cincinnati to Schenck, Ohio, inclusive
Cincinnati, Lebanon & Northern Ry.	Cincinnati to Lebanon, Ohio, inclusive
Cincinnati Northern R. R.	Cincinnati to Lockland and Cleves, Ohio, inclusive
Cleveland, Cincinnati, Chicago & St. Louis Ry.	Cincinnati to Lockland, Ohio, and Aurora, Ind., inclusive
Pittsburgh, Cincinnati, Chicago & St. Louis Ry.	Cincinnati to Oregonia, Ohio, inclusive

Evansville Rates

Chicago & Eastern Illinois R. R.	Mt. Vernon and Evansville, Ind., to but not including Vincennes, Ind.
Cleveland, Cincinnati, Chicago & St. Louis Ry.	Evansville, Ind., to but not including Mt. Carmel, Ill.
Illinois Central R. R.	Evansville to Hovey, Ind., inclusive; Riverton to Lenore, Ind., inclusive
Louisville & Nashville R. R.	Evansville and Mt. Vernon, Ind.
Louisville, Henderson & St. Louis Ry.	Evansville, Ind.
Louisville, New Albany & Corydon R. R.	Nevin and Corydon, Ind.
Southern Ry.	Evansville to Norton, Ind., inclusive; East Mt. Carmel to Parkwood, Ind., inclusive

Indianapolis Rates

Chicago, Indianapolis & Louisville Ry.	Indianapolis, Ind.
Cincinnati, Hamilton & Dayton Ry.	Indianapolis to Roachdale, Ind.
Cleveland, Cincinnati, Chicago & St. Louis Ry.	Beech Grove, North Indianapolis, Sunnyside, West Side, and Indianapolis, Ind.
Illinois Central R. R.	Indianapolis, Ind.
Lake Erie & Western R. R.	Indianapolis to Atlanta, Ind.
Pittsburgh, Cincinnati, Chicago & St. Louis Ry.	Indianapolis, Ind.
Vandalia R. R.	Indianapolis, Ind.

Jeffersonville Rates

Baltimore & Ohio Southwestern R. R.	Jeffersonville, Ind.
Cleveland, Cincinnati, Chicago & St. Louis Ry.	Jeffersonville, Ind.
Pittsburgh, Cincinnati, Chicago & St. Louis Ry.	Jeffersonville, Ind.
Southern Ry.	Jeffersonville, Ind.

Louisville Rates

Baltimore & Ohio Southwestern R. R.	Louisville, Ky.
Chicago, Indianapolis & Louisville Ry.	Louisville, Ky.

TABLE 9—Continued

POINTS OF DESTINATION

NAME OF RAILROAD	STATIONS
Cleveland, Cincinnati, Chicago & St. Louis Ry.	Louisville, Ky.
Louisville, Henderson & St. Louis Ry.	Louisville, Ky.
Southern Ry.	Louisville, Ky.

New Albany Rates

Baltimore & Ohio Southwestern R. R.	New Albany to Lovett, Ind., inclusive
Chicago, Indianapolis & Louisville Ry.	New Albany, Ind.
Southern Ry.	New Albany, Ind.

Owensboro Rates

Louisville & Nashville R. R.	Henderson and Owensboro, Ky.
Louisville, Henderson & St. Louis Ry.	Henderson, Maceo, Owensboro, and Stauley, Ky.

The slight difference existing between the rates to the upper and the lower Ohio River Crossings, while of no particular importance in connection with local traffic, would, in many cases where competitive traffic is concerned, be sufficient to control the gateway through which the traffic is forwarded.

Diagram 7 indicates several of the through routes which might be employed in forwarding goods to Chattanooga, Tenn. The fact that the rates from the south-bank points to Chattanooga are the same, whether the traffic moves through Cairo, Ill., Louisville, Ky., or Cincinnati, Ohio, necessitates that the rates up to the crossings be the same in order that all routes may be placed on a parity in so far as transportation charges are concerned. The rates currently maintained from the several groups of origin to the Ohio River Crossings are shown in Table 10.

TABLE 10

CLASS RATES FROM NORTHERN POINTS OF ORIGIN TO OHIO RIVER CROSSINGS

FROM	TO	RATES IN CENTS PER 100 POUNDS								
		Classes								
		1	2	3	4	5	6	R25	R26	R28
Chicago, Ill.	Indianapolis, Ind..	45	38.5	30	22.5	16	12.5	32.5	24	25
	Cincinnati, Ohio.. } Evansville, Ind... }	51	43.5	34	25.5	18	14.5	37	27	28.5
	Jeffersonville, Ind. } New Albany, Ind. }	52	44	35	26	18	14.5	37.5	28	29
	Louisville, Ky.....	53	45	36	27	19	15.5	38.5	29	30
	Owensboro, Ky....	58.5	50	39	30.5	21	17.5	42.5	31	33.5
Peoria, Ill.	Indianapolis, Ind..	47	40	31.5	23.5	16.5	13	34	25	26.5
	Cincinnati, Ohio...	54	46	36	27	19	15	39	29	30
	Evansville, Ind....	51	43.5	34	25.5	18	14.5	37	27	28.5
	Jeffersonville, Ind. } New Albany, Ind. }	54	46	36	27	19	15	39	29	30
	Louisville, Ky.....	55	47	37	28	20	16	40	30	31
	Owensboro, Ky....	58.5	50	39	30.5	21	17.5	42.5	32	33.5
Milwaukee, Wis.	Indianapolis, Ind..	51	43.5	34	25.5	18	14.5	37	27	28.5
	Cincinnati, Ohio.. } Evansville, Ind... }	57	48.5	38	28.5	20	16.5	41	31	32
	Jeffersonville, Ind. } New Albany, Ind. }	58	49	39	29	20	16.5	41.5	31	32.5
	Louisville, Ky.....	59	50	40	30	21	17.5	42.5	32	33.5
	Owensboro, Ky....	64.5	55	43	33.5	23	19.5	47	34.5	37
Davenport, Ia.	Indianapolis, Ind..	58.5	49.5	39.5	29.5	21	17.5	42	31.5	33
	Cincinnati, Ohio...	63	53.5	42	31.5	22.5	18.5	45.5	33.5	35.5
	Evansville, Ind....	61	53	39.5	30.5	23	19.5	45	31.5	33.5
	Jeffersonville, Ind. } New Albany, Ind. }	61	53	39.5	30.5	23	19.5	45	31.5	33.5
	Louisville, Ky.....	62	54	40.5	31.5	24	20.5	46	32.5	34.5
	Owensboro, Ky....	68.5	59.5	44.5	35.5	26	22.5	50.5	36.5	38.5
Indianapolis, Ind.	Cincinnati, Ohio...	33.5	30	24	18	12.5	10	25.5	19	20
	Evansville, Ind....	42.5	36	28.5	21.5	15	12	30.5	23	24
	Jeffersonville, Ind.	35.5	30	24	18	12.5	10	25.5	19	20
	New Albany, Ind..	35.5	30	24	18	12.5	10	25.5	19	20
	Louisville, Ky.....	36.5	31	25	19	13.5	11	26.5	20	21
	Owensboro, Ky....	50	42.5	33.5	26.5	18	15	36	28.5	29

[1] Rates from all points except Indianapolis are governed by the Southern Classification. Rates from Indianapolis, however, are governed by the Official Clasisfication.

[2] If the rates named from Chicago governed by the Southern Classification make a lower charge on shipments than the rates named from Indianapolis governed by the Official Classification, such lower charge applies from Indianapolis.

These rates apply only to the north-bank crossings. The rates to the south-bank crossings are made arbitraries or bridge tolls higher than the north-bank rates,

the rates to Louisville, Ky., generally being 1 cent per 100 pounds higher than the rates to Jeffersonville or New Albany, Ind., and the rates to Paducah, Ky., being 2 cents per 100 pounds higher than the rates to Brookport, Ill.   In the case of Louisville, the figure represents the bridge toll, as previously explained, and in the case of Paducah, the cost of ferry or transfer in the interchange of traffic between north-bank and south-bank lines.

In the application of the rates under this adjustment, they are confined to the crossings proper and not applied to intermediate or interior points.

As to originating points, however, additional groups are incorporated, as may be seen from Table 10, namely, the Davenport and Peoria groups.   This greatly increases the area on the north and west from which these rates are applied.

The volume of northbound classified traffic[1] is much less than that in the opposite direction.   This is reflected in the fact that the northbound rates are somewhat higher than the rates in the opposite direction.

In conclusion, the foregoing indicates, to a great degree, the influence that competition of various kinds exerts upon the freight rate structures of this country.

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[1] Traffic moving on class rates.

CHAPTER VI

ADJUSTMENT IN TRUNK LINE FREIGHT ASSOCIATION TERRITORY

DEVELOPMENT

Formerly, there were many distance tables used as a basis for rates by the carriers in Trunk Line Territory. More recently, however, most of these distance tables have been published as specific rates, although the specific rates are, in most cases, identical with the old distance tables. There are a number of distance tariffs still applicable on the eastbound movement of coal within Trunk Line Territory.

Specific rates differ from distance tables in that a rate is named specifically to apply from, say, New York City to Buffalo, N. Y., irrespective of the distance, whereas in the distance table, graduated rates are indicated, as shown in the Central Freight Association, Michigan, and Illinois scales, involving the determination of the distance before the rate can be known.

The distance tables employed in this territory, contrary to those employed in Central Freight Association Territory, are by no means uniform; that is, one carrier's scale for a 5-mile or a 10-mile distance may vary considerably from that employed by another line.

A survey of this territory from the *Atlas of Railway Traffic Maps* will suffice to show that the rail carriers are exposed to a great degree to the influence of active and compelling water competition. The Hudson River

and Atlantic Ocean are on the east, and the Erie Canal and Great Lakes are on the north. The coast line is pierced by the Susquehanna, Delaware and Potomac rivers, which penerate far into the interior of the territory and afford navigable stages of water during the greater part of the year.

As an example, the rates between New York and Newburgh, Poughkeepsie, Albany, and other landings on the Hudson River will be found to be quite low. This is accounted for by the fact that the rail lines are compelled to meet the active competition of the boat lines. Add to this the highly developed competition of the numerous electric interurban lines and the fact that the motor truck has expanded considerably the limit of industrial and commercial delivery service, and the reason for the lack of uniformity in the various distance scales adopted by the individual carriers may be readily appreciated.

Representative water rates from New York, which, however, are more or less subject to fluctuation, are reproduced in Table 11 to give an idea of the low rates that obtain between the respective port cities in this territory.

TABLE 11

CLASS RATES APPLICABLE VIA WATER LINES[1] FROM NEW YORK CITY

FROM NEW YORK TO	RATES[2] IN CENTS PER 100 POUNDS					
	Classes					
	1	2	3	4	5	6
Utica, N. Y.............	17	15	14	12	11	10
Syracuse, N. Y......... ⎫ Rochester, N. Y......... ⎭	20	18	15	12	11	10
Buffalo, N. Y............	21	19	15	12	11	10
Cleveland, Ohio..........	40	35	28	19	17	15
Detroit, Mich............	41	37	29	20	17	16

[1] Via New York and Western Canal Co., Inc.
[2] Governed by the Official Classification.

As a rule, the boat lines dominate the rates to points they serve and the rail lines must determine what higher rates the rail service can command.

As many of the more important points are near each other, it is not surprising to find express companies operating horse-drawn or motor-propelled vehicles competing for the trade of these communities. Especially is this true in the case of New York, Philadelphia, and Boston. The field of their activities is limited, of course, in that they cannot move the quantities of crude articles that can be transported by rail or vessel, but in connection with package freight, they may be viewed as aggressive competitors. Particularly where the higher-class (small-package) traffic is concerned, the railroads must take this competition into account in adjusting their schedules.

Adjustment to Interior Points

The present adjustment of rates to interior points bears a general relationship to the rates applying between Chicago and New York. The rates between New York rate points and Pittsburgh-Erie rate points are made 60 per cent of the rates currently in effect between New York and Chicago. For the six classes, they are on the following scale:

Classes	1	2	3	4	5	6
Rates	54	47.5	36	25	21.5	18

Between Philadelphia rate points and Pittsburgh-Erie rate points, the rates for the six classes are arbitrarily made by the deduction of specified differentials from the rates applying from New York to the Pittsburgh-Erie group. The differentials are as follows:

Classes	1	2	3	4	5	6
Differentials	6	6	2	2	2	2

Likewise, between Baltimore rate points and Pittsburg-Erie rate points, the rates are made by deducting the fol-

lowing differentials from the rates applying between New
York and the Pittsburgh-Erie group:

Classes	1	2	3	4	5	6
Differentials	8	8	3	3	3	3

Table 12 sets forth the adjustment of rates applying
to and from the so-called Western Termini from and to
other seaports and interior base points in Trunk Line
Territory.

TABLE 12

BASES FOR RATES FROM EASTERN POINTS OF ORIGIN TO OR FROM
WESTERN TERMINI

ITEM	RATES APPLY		IN CENTS PER 100 POUNDS						REMARKS
			Classes						
			1	2	3	4	5	6	
	Between								
1	Boston, Mass. Portland, Me. Brunswick, Me. Hartford, Conn.	Pittsburgh-Erie rate points	5	4	3	3	2½	2	Over rates from Pittsburgh or Erie to New York
		Buffalo rate points	5	5	2½	2½	2½	2	Over rates from Buffalo, N. Y., to New York
2	New York, N. Y.	Pittsburgh-Erie rate points							60 per cent of Chicago-New York rates
		Buffalo rate points	48	41.5	34	22	19.5	16	Erie-Philadelphia rates
3	Philadelphia, Pa.	Pittsburgh-Erie rate points	6	6	2	2	2	2	Under New York rates
		Buffalo rate points							Philadelphia-Erie rates
4	Baltimore, Md.	Pittsburgh-Erie rate points	8	8	3	3	3	3	Under New York rates
		Buffalo rate points							Philadelphia-Erie rates
	Eastbound								
5	Albany, N. Y.	Pittsburgh rate points							Pittsburgh-New York rates
		Erie rate points							92 per cent of Erie-New York rates

TABLE 12—Continued

BASES FOR RATES FROM EASTERN POINTS OF ORIGIN TO OR FROM WESTERN TERMINI

ITEM	RATES APPLY		In Cents per 100 Pounds Classes						REMARKS
			1	2	3	4	5	6	
	Westbound								
6	Albany, N. Y.	Pittsburgh-Erie rate points							Class rates same as Philadelphia-Pittsburgh rates; commodity rates 80 per per cent of New York-Pittsburgh rates
	Eastbound								
7	Utica, N. Y.	Pittsburgh rate points							92 per cent of Pittsburgh-New York rates
		Erie rate points							80 per cent of Erie-New York rates
	Westbound								
8	Utica, N. Y.	Pittsburgh-Erie rate points							Class rates same as Philadelphia-Pittsburgh rates; commodity rates 80 per cent of New York-Pittsburgh rates
	Eastbound								
9	Syracuse, N. Y.	Pittsburgh rate points							84 per cent of Pittsburgh-New York rates
		Erie rate points							75 per cent of Erie-New York rates
	Westbound								
10	Syracuse, N. Y.	Pittsburgh-Erie rate points							Class rates same as Syracuse-Cleveland rates; commodity rates 70 per cent of New York-Pittsburgh rates
	Eastbound								
11	Rochester, N. Y.	Pittsburgh rate points							72 per cent of Pittsburgh-New York rates
		Erie rate points							62 per cent of Erie-New York rates

TABLE 12—Continued

BASES FOR RATES FROM EASTERN POINTS OF ORIGIN TO OR FROM
WESTERN TERMINI

ITEM	RATES APPLY		IN CENTS PER 100 POUNDS Classes						REMARKS
			1	2	3	4	5	6	
	Westbound								
12	Rochester, N. Y.	Pittsburgh-Erie rate points							Same as rates from Syracuse
	Between								
13	Virginia Cities	Pittsburgh rate points							Same rates as from Columbus, Ohio, to Baltimore
		Buffalo, Dunkirk, and interior New York state points	20	17	13	9	8	6	Over Baltimore rates

The bases for the construction of rates delineated in items 1, 2, 3, 4, and 13 of Table 12 apply to both eastbound and westbound rates, whereas the bases shown in the remaining items apply only in the direction indicated.

The first item shows that the rates between the Pittsburgh-Erie group and the more important New England points are made by the addition of arbitraries to the rates which apply between the Pittsburgh-Erie group and New York. Similarly, the rates between these points and Buffalo are made by the addition of the figures indicated to the rates which apply between New York and Buffalo. For example, item 2 shows that the rates between Buffalo and New York are on a 48-cent scale. These rates are arbitrarily established on a somewhat lower basis than that which obtains between New York and the Pittsburgh-Erie group, being the Philadelphia-Erie rates. This depression in rates is ascribed to the competition between the rail lines and the water lines operating on the Erie Canal and Hudson River. The rates between Buffalo and, Boston are made by adding the arbitraries indicated in

item 1 to the New York rates indicated in item 2, resulting in through rates as follows:

Classes	1	2	3	4	5	6
Rates	59	52.5	38.5	26.5	24	20

Taking the next item in the table, the rates are made in a similar manner, namely, by deducting the figures indicated from the rates that are established between the Pittsburgh-Erie group and New York. The New York rates are made 60 per cent of the Chicago-New York rates, which are as follows:

Classes	1	2	3	4	5	6
Rates	90	79	60	42	36	30

The following figures represent the rates between the Pittsburgh-Erie group and New York.

Classes	1	2	3	4	5	6
Rates	54	47.5	36	25	21.5	18

By deducting the differentials previously set forth, the following rates are arrived at, which apply between the Pittsburgh-Erie group and Philadelphia:

Classes	1	2	3	4	5	6
Rates	48	41.5	34	23	19.5	16

These rates are also applied between Buffalo and Philadelphia.

The Baltimore, Md., rates are similarly obtained, with the exception that the differentials on the first-class and second-class rates are increased 2 cents and on the lower classes 1 cent per 100 pounds, resulting in a corresponding difference in the net rates.

From Buffalo, N. Y., to Albany, Utica, Syracuse, and Rochester, N. Y., no specific adjustment is established. As the New York Central Railroad is the short line to these points they are subject to the dictates of that line as to what rates will be established. As a rule, they are made

on the mileage scale adopted for the particular division of that railroad.

The traffic from the Erie-Pittsburgh group, however, is competitive and may select several routes via which to move. Particular attention is directed to the fact that the adjustment prescribed varies according to the direction of the traffic. Consequently, care should be taken to observe whether the rates desired are those applicable on eastbound or on westbound traffic.

Taking the Albany adjustment; assume that it is desired to construct the second-class rate from Pittsburgh to Albany. The first section of the item states that the rates are the same as the Pittsburgh-New York rates. As these rates are made 60 per cent of the Chicago-New York rates, by taking 60 per cent of 79, 47.5 cents is obtained as the second-class rate from Pittsburgh to Albany. If the direction of the traffic were westbound instead of eastbound, the rate would be made the same as that from Philadelphia to Pittsburgh, namely, 41.5 cents.

The distance to Utica, N. Y., from Erie and Pittsburgh being substantially the same, the bases used in obtaining the westbound rates between these points are approximately the same as those applied in the Albany adjustment. Consequently, the illustration given there will suffice for this point as well.

The westbound adjustment of rates from Syracuse, N. Y., to the Pittsburgh-Erie rate groups is somewhat more complicated than the preceding adjustments set forth in the table in that it requires the construction of the rates to Cleveland, Ohio (a Central Freight Association point). This adjustment is discussed in a later chapter in this treatise, but for the purpose of illustrating the feature at hand, it seems well to give an illustration of it at this time. Map 3 of the *Atlas of Railway Traffic Maps* indicates that Cleveland, Ohio, is in 71 per cent territory. Consequently, the rates from New York to Cleveland,

which are the base rates for subsequent computation, must first be ascertained. This is done by taking 71 per cent of the New York-Chicago rates, resulting in the following scale.[1]

Classes	1	2	3	4	5	6
Rates	64	56	42.5	30	25.5	21.5

The rates from Syracuse to Cleveland are the following amounts less than from the New York-Cleveland rates:[2]

Classes	1	2	3	4	5	6
Differentials	18.1	15.9	13.1	9.3	7.7	6.1

the rates from Syracuse to Cleveland being as follows:

Classes	1	2	3	4	5	6
Rates	46	30	29.5	20.5	18	15.5

In some instances the carriers establish rates which vary with the direction of the movement. The business from Syracuse to Erie may be relatively unimportant and little or no traffic actually involved, whereas the east-bound movement may be heavy, and a somewhat lower rate would therefore be justified.

What has been said in connection with the Syracuse adjustment holds good in so far as the Rochester, N. Y., adjustment is concerned.

The rates between the Virginia Cities and Pittsburgh are made the same as those applying from Columbus, Ohio, (a 77 per cent point) to Baltimore, Md. The rates between Buffalo, Dunkirk, and interior New York state points are made by the addition of arbitraries to the rates between the same points and Baltimore. The through rates between Buffalo and Newport News, Va., are as follows:

Classes	1	2	3	4	5	6
Rates	66.5	58	43	29.5	24.5	20

[1] See Table 17.
[2] See Table 19.

From points located in Trunk Line Territory, other than those mentioned, the rates are made on the mileage scales of the carriers, the rates established to and from more distant points not being exceeded at intermediate points. The figures so made are observed as far as possible.

COMMODITY RATES

Aside from coal, lumber, and iron, there are comparatively few commodity adjustments employed within this territory as contrasted with other sections of the country. There are, however, numerous commodity rates established on traffic imported through the North Atlantic Ports, which are somewhat less than the class rates that would obtain. In the application of rates, the general rule for the use of the differentials is that when the commodity rate is the same as a class rate, the class differential applicable to that class shall be added or subtracted, as indicated; but when the commodity rate is not the same as a class rate, the differential for the next higher class is to be employed. For the purpose of illustration, suppose that a commodity rate of 30 cents is established from Buffalo to New York; as this rate is higher than the third-class rate, the second-class differential of 5 cents would be used in making the rate to Boston.

CHAPTER VII

ADJUSTMENT IN NEW ENGLAND FREIGHT ASSOCIATION TERRITORY

Traffic Characteristics

This territory, surrounded almost entirely by navigable water and comprising, as it does, the smallest rate association territory in so far as area is concerned, presents in its rate structure many of the peculiarities found in the Trunk Line adjustment that are forced on the rail carriers in order to equalize the effect of the water competition.[1]

The southern tier of states (Massachusetts, Rhode Island, and Connecticut) supports the greatest per cent of population and in it are located the greater number of the large manufacturing plants, textile mills, and other industries for which the New England group of states is noted. Two of the largest cities in the country are located therein and offer profitable markets at which to dispose of the manufactured wares.

Owing to the location of these cities, Boston on the east and New York on the west, the average length of haul on traffic between points in this territory is very much less than obtains in other sections of the country.

As illustrating the general traffic conditions that obtain in the New England States, the conclusions of the Interstate Commerce Commission, based on the investigations of that body with respect to the operation and practices of carriers in this territory, are especially illuminating and for that reason are here reproduced.

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[1] See Map 2, *Atlas of Railway Traffic Maps.*

RATES OF TRANSPORTATION

For many years the railroad monopoly of New England has been more complete than in any other considerable section of this country. The Boston & Maine has almost exclusively occupied the northern portion of that section, while the New Haven has enjoyed the same exclusive privileges in the south. It is interesting to inquire how the rates of transportation, both freight and passenger, there compare with other parts of the country.

The average receipts per ton-mile upon the New Haven Railroad for the year 1911 were 1.39 cents. This is probably a higher per ton-mile average than is shown by any other large railroad system in the United States. It does not, however, follow from this that the rates under which that road operates are therefore higher.

This is well illustrated by a reference to the same figure upon the Boston & Maine. In 1900 the ton-mile receipts of that system were 1.439 cents, somewhat greater than those then or now upon the New Haven. In 1901 that figure had fallen to 1.134 cents, the reason being that, beginning July 1, 1900, the Boston & Maine began to operate and so included in its return to this Commission for that year the Fitchburg Railroad. That railroad handles a large amount of through traffic of a low grade and paying a low rate, and this tends to reduce the average rate which for that company in 1900, the year before it was absorbed by the Boston & Maine, had been 0.798. For the year 1911 the ton-mile receipts of the Boston & Maine were 1.095 cents.

While, therefore, the average ton-mile receipts of the New England railroads are probably higher than those in any other section of this country where traffic conditions are fairly comparable with New England, this figure has but slight significance as bearing upon the relative transportation charge. . . .

For the purpose of the comparison representative cities located in   .   .   .   various sections have been selected, namely, Boston, New York, Pittsburgh, Cincinnati, and Chicago. Rates from Boston are exclusively within the limits of New England; from New York they apply both into New England upon the east and into trunk line territory upon the west; from Pittsburgh we have rates into trunk line territory going east and into Central Freight Association Territory going west. Cincinnati and Chicago are exclusively in Central Freight Association Territory, save that rates have been examined from Cincinnati south into southern territory.

In addition to the principal cities above selected we have also taken certain smaller towns—in New England, Burlington,

Vt., and Concord, N. H.; in trunk line territory, Schenectady, N. Y., and Scranton, Pa.; in Central Freight Association Territory, Akron, Ohio, and Springfield, Ill.

The rates selected for purposes of comparison have been, first of all, the class rates. While in the three territories under consideration many commodity rates are in effect which are less than the class rates and which move an enormous volume of traffic and are of vital consequence to the communities served, still the preponderating movement of merchandise traffic, strictly speaking, is under the class rates or under rates which are a percentage of the class rates, so that the most comprehensive and fairest comparison probably arises upon a statement of the relative class rates.

Generalizing the results of these comparisons, without attempting to give the figures themselves, we find that class rates in Central Freight Association Territory are distinctly lower than in New England, especially on classes 5 and 6. These two classes move a very large amount of carload traffic, being the two classes which apply very generally to carload business. Class rates from New York and Boston to New England points are about the same as those from New York and Pittsburgh into trunk line territory.

Class rates from interior New England points appear to be rather higher than corresponding rates in both trunk line and Central Freight Association Territories.

We have also instituted a comparison between rates from these same points on three or four of the principal commodities.

Coal is not produced in New England, but is extensively consumed. Coal rates from the various seaports of New England to near-by interior points are uniformly high as compared with rates for similar distances in the other territories under consideration. Rates to more distant interior points are not so extravagant and are often low. The reason for this appears to be that coal reaches the various ports of New England by water and is from thence distributed by rail. This water-and-rail route competes with the all-rail route, and the purpose of these high rates to near-by points is to maintain the all-rail rate.

What has been said as to coal applies to pig iron. The rail rate to the near-by point is usually extremely high, and for the same reason apparently.

Lumber is largely produced in New England, and the rates upon that commodity between points in New England compare favorably with those in trunk line and Central Freight Association territories for like distances.

Rates on grain are much higher in New England than in these other territories, but this is not a matter of much signifi-

cance, since comparatively little grain is raised in New England which is subsequently transported by rail. The grain which New England consumes comes mainly from the west upon rates which must be considered low.

Hay is largely produced and transported in New England, and the rates upon this commodity are rather more favorable than in the other territories. Generally speaking, hay moves under the fifth-class rate, but in New England the bulk of the movement is under commodity rates, lower than this class rate.

Our examination, which has been a rather extended one, fairly indicates that freight rates between points in New England, while somewhat higher in many instances, compare favorably upon the whole with those in trunk line territory and Central Freight Association Territory. They are lower than corresponding interstate rates in other parts of the country, although not as low in some instances as the commission-made rates of several states in this outside territory. . . .

It should be noted in this connection that the cost of handling freight is greater in New England than in trunk line and Central Freight Association Territory and, indeed, in most other parts of the country.

1. The haul in New England is shorter—93 miles as against 138 miles in the United States as a whole.

2. The switching service in New England is much greater. The proportion of locomotive switching mileage to locomotive freight mileage is 59 per cent in New England, as compared with 43 per cent in the whole country.

3. The loading in New England is lighter. The average load, including both loaded and empty cars, is 10.5 tons per car in New England, as compared with 13.4 in the United States. The average load per loaded car is 14.8 tons in New England as against nearly 20 for the United States.

4. The price of coal in New England is distinctly higher. The defendants claim that had the Boston & Maine been able to own its coal upon its tenders at the same price as the Pennsylvania Railroad its operating expenses for the year 1912 would have been $2,500,000 less than they were. Without subscribing to the accuracy of this figure, it is certain that the greater expense of fuel adds materially to the cost of operation in New England as compared with most other portions of the United States.[2]

In explanation of the low rates charged by both water and rail lines, it is necessary only to call attention to the

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[2] 27 I. C. C. Rep. 572-76 (1913).

fact that New England is quite a distance from the sources of supply of raw materials that are necessary to enable the mills and manufactories located in the territory to continue their operations. New England is famed for the manufacture of boots, shoes, leather goods, textiles, and machinery, but there is a very small production of live stock and in consequence the hides from which the finished product is made must be bought from other sections. The same holds good with respect to cotton, wool, and iron, from which it may be seen that the area itself produces but little of the crude or raw materials. Consequently, the bases of rates must be such, and the rates themselves so adjusted, as to make possible the assembling of raw materials at points of manufacture, such as the shoe factory, the textile mill, and the cutlery factory, and the distribution of finished articles to other points at a profit.

It is not surprising, therefore, that as a whole this system of rates meets with general satisfaction and is subject to less complaint on the part of the shipping public than any other in the country. Practically the only grounds for complaint have been the fixing of the so-called differential adjustment of rates from and to points in Trunk Line and Central Freight Association territories, which, it is alleged, places Boston at a disadvantage as compared with New York, Philadelphia, Baltimore, and other North Atlantic Ports. This phase of the question, however, is taken up in the adjustment of rates under the percentage system, which is set forth in a later chapter of this treatise.

The New England Scale of Class Rates

As illustrative of the general measure of rates in this territory, that obtaining on the Boston and Maine Railroad affords a very excellent basis, as it is not only one of the most recent (having been made effective **April 1,**

1914), but also scientifically arranged in that the lower classes bear a definite relationship to the first class.

This scale was adopted after protracted hearings which were participated in jointly by the Interstate Commerce Commission, the public service commissions of several states, and the representatives of the carriers and the public.

TABLE 13

MILEAGE SCHEDULE OF CLASS RATES[1] FOR USE ON CLASS-A ROADS[2]

MILES	1	2	3	4	5	6	MILES	1	2	3	4	5	6
5...	20.5	17.5	13.5	10.5	7	5.5	200...	48.5	41	32.5	24.5	17	13.5
10...	22	18.5	14.5	11	7.5	6	210...	49	41.5	33	24.5	17	13.5
15...	23	19.5	15.5	11.5	8	6.5	220...	49.5	42	33	25	17.5	14
20...	24	20.5	16	12	8.5	6.5	230...	50	42.5	33.5	25	17.5	14
25...	25.5	21.5	17	13	9	7	240...	50.5	43	34	25.5	17.5	14
30...	26.5	22.5	18	13.5	9.5	7.5	250...	51	43.5	34	25.5	18	14.5
35...	27.5	23.5	18.5	14	9.5	7.5	260...	52	44	35	26	18	14.5
40...	29	24.5	19.5	14.5	10	8	270...	52.5	44.5	35	26.5	18.5	14.5
45...	30	25.5	20	15	10.5	8.5	280...	53	45	35.5	26.5	18.5	15
50...	31	26.5	21	15.5	11	8.5	290...	53.5	45.5	36	27	18.5	15
55...	31.5	27	21	16	11	9	300...	54	46	36	27	19	15
60...	32	27	21.5	16	11	9	320...	55	47	37	27.5	19.5	15.5
65...	33	28	22	16.5	11.5	9	340...	56.5	48	38	28.5	20	16
70...	33.5	28.5	22.5	17	11.5	9.5	360...	57.5	49	38.5	29	20	16
75...	34	29	23	17	12	9.5	380...	58.5	49.5	39	29.5	20.5	16.5
80...	34.5	29.5	23	17.5	12	9.5	400...	60	51	40	30	21	17
85...	35	30	23.5	17.5	12.5	10	420...	61	52	41	30.5	21.5	17
90...	35.5	30	24	18	12.5	10	440...	62	52.5	41.5	31	21.5	17.5
95...	36	30.5	24	18	12.5	10	460...	63	53.5	42	31.5	22	17.5
100...	37	31.5	25	18.5	13	10.5	480...	64.5	55	43	32.5	22.5	18
110...	38	32.5	25.5	19	13.5	10.5	500...	65.5	55.5	44	33	23	18.5
120...	39	33	26	19.5	13.5	11	520...	66.5	56.5	44.5	33.5	23.5	18.5
130...	40.5	34.5	27	20.5	14	11.5	540...	68	58	45.5	34	24	19
140...	41.5	35.5	28	21	14.5	11.5	560...	69	58.5	46	34.5	24	19.5
150...	42.5	36	28.5	21.5	15	12	580...	70	59.5	47	35	24.5	19.5
160...	43.5	37	29	22	15	12	600...	71.5	61	48	36	25	20
170...	45	38.5	30	22.5	16	12.5	620...	72.5	61.5	48.5	36.5	25.5	20.5
180...	46	39	31	23	16	13	640...	73.5	62.5	49	37	25.5	20.5
190...	47	40	31.5	23.5	16.5	13	660...	75	64	50	37.5	26	21

[1] Governed by the Official Classification.
[2] In the disposition of fractions, those of less than one-half cent were dropped and one-half cent and over rounded out to a full cent in arriving at the base rates in the scale.

It will be observed from Table 13 that the scale is based on 5-mile rates of progression from 5 to 100 miles, inclusive; on 10-mile rates of progression from 100 to 300 miles, inclusive; and on 20-mile rates of progression beyond.

CLASS RELATIONSHIP

Relationship existing between the various classes is predicated on the first-class rate, the first-class division being taken as the basic division and the other classes being constructed with relation thereto on the following percentages:

Class	2	3	4	5	6
Percentage	85	67	50	35	28

Rules 25, 26, and 28 are constructed on the basis authorized by the current Official Classification.

APPLICATION OF SCALE

The Class-A schedule set forth in Table 13 was designed primarily to apply between points located in the more densely situated district served by the Boston and Maine Railroad, as it was recognized by its designers that it would not yield an equitable return to the carriers if blanketed over the entire territory.

So far as the Boston and Maine Railroad is concerned, we have indicated in Diagram 8 the territory or divisions on which this scale of rates is applied by means of horizontal lines drawn across the respective divisions of those portions on which a Class-A scale of rates is applied.

CLASS-B RATES

For application in the more sparsely settled sections of the territory served by this railroad, it was decided that an increase of 10 per cent in the rates obtaining under

the Class-A adjustment would prove equitable both for the carrier and for the shipping public, and the rates were so made. This territory is indicated in Diagram 8 by the heavy black lines.

The Rates applicable before the present scale on hauls between A lines and B lines were on a constructive mileage basis, the actual distance traversed over a Class-A line being added to 125 per cent of the distance traversed over a Class-B line. Under the new scale, Class-B Rates will apply to all traffic moving to or from Class-B lines.

Between points in Class-B and Class-A the rate will be 10 per cent higher than the rates for hauls of the same length on Class-A lines.

Interline or joint rates are established on a slightly higher basis, but the underlying principles affecting the mileage and money rate of progression and the class relationship are the same.

In connection with the adjustment of rates in this territory, following the proposed horizontal increase of 5 per cent recently permitted by the Interstate Commerce Commission, Commissioner Harlan called attention to the fact that in this case the New England carriers sought approval of an increase only in the rates on traffic moving between New England Territory and other parts of Official Classification Territory. They did not propose a general 5 per cent increase in their intraterritorial freight rates. Those carriers undertook, instead, a general rate revision, which has since been largely effected through friendly conferences with state commissions and with shippers, and is now, by common consent of the public and state officials, being brought to a conclusion on a basis that will afford those lines a much larger additional net income than they could have secured through a 5 per cent increase in their freight rates. In other words, the New England lines have voluntarily pursued the only rational and reasonable course to augment their revenues,

MAP
OF THE
BOSTON & MAINE R.R.
SHOWING CLASSIFICATION OF THE LINE
FOR THE APPLICATION OF DISTANCE RATE
UNDER THE NEW ENGLAND SCALE
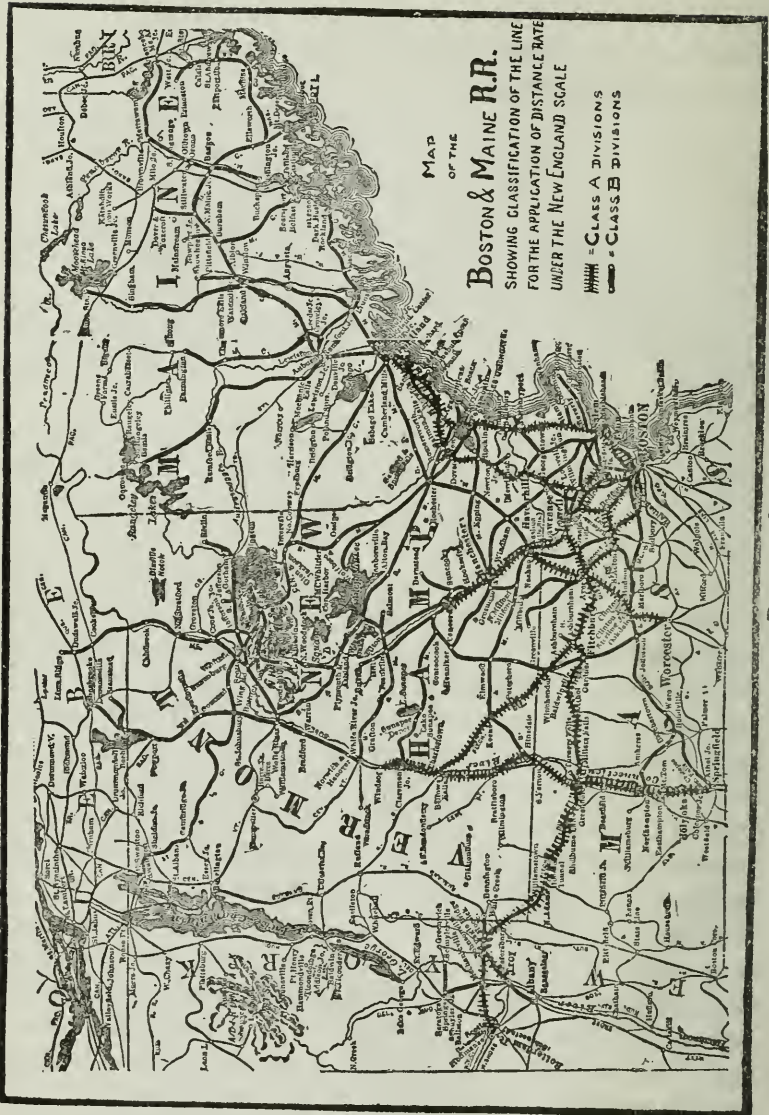
= CLASS A DIVISIONS
= CLASS B DIVISIONS

DIAGRAM 8

this being the course urged upon the Central Freight Association lines and the course that those lines at the hearing admitted to be necessary in order to meet their real requirements.[3]

[3] 32 I. C. C. Rep. 33.

TEST QUESTIONS

1. Indicate several of the so-called overlaps of Official Classification Territory and the reasons therefor.

2. Define the organization and function of freight associations.

3. How does the railroad mileage and density of traffic in Official Classification Territory contrast with Western and Southern Classification territories?

4. What is the principal source of traffic in Official Classification Territory?

5. By whom are the intrastate rates in Illinois prescribed?

6. In the application of the Illinois scale of rates, how are the carriers of that state grouped?

7. Give an illustration of the construction of joint rates in Illinois.

8. To what extent are rates governed by the Official Classification applied on intrastate business, moving between points within the state of Michigan?

9. What is the basis employed in constructing rates between local points on the same railroad in the state of Michigan?

10. With what authority is the Public Service Commission of Ohio vested with regard to freight rates?

11. What scale of rates is applied to Indiana intrastate traffic?

12. To what extent is the Central Freight Association scale of rates applied?

13. Suppose A and B are in adjoining states and 426 miles apart, what scale of rates ordinarily would be applied?

14. How are short-line junction-point distances determined?

15. Give an illustration of the application of a basing-point rate to intermediate points.

16. Is it possible for the circuitous line in all cases to meet the short-line rate?

17. What would be the class rates from Glendale, Ohio, to Stockton, Ohio?

18. Give an illustration of when it is desirable to afford competing plants an equality in freight rates.

19. How, as a rule, are rates to branch-line points constructed?

20. Illustrate the disrupting effect that state-prescribed rates have on the Central Freight Association scale of rates.

21. Discuss the development of the class divisions of the Central Freight Association scale of rates.

22. How is the Rule 28 class rating determined?

23. Enumerate some of the commodities which are accorded ratings based on percentages of the existing class rates.

24. What is a "basing book," or "'basing sheet"?

25. What is meant by rates being "out of line"?

26. Enumerate some of the commodities for which special scale rates are prescribed by the Central Freight Association.

27. What elements intervene and cause a disregard of the distance principle in the application of the Central Freight Association scale?

28. Illustrate the equalization of competition in so far as traffic destined to points in Southeastern Territory is concerned.

29. How does the short-line distance, Chicago to Cincinnati, compare with the distance via other workable routes?

30. Into what groups are the so-called Ohio River Crossings divided?

31. How are the rates from Milwaukee adjusted with respect to the rates from Chicago?

32. What are the lake-and-rail rates by car-ferry from Milwaukee across Lake Michigan to Cincinnati?

33. To what causes may be ascribed the difference in the rates from Chicago to Ohio River Crossings in Illinois as contrasted with Ohio River Crossings in Indiana and Ohio?

34. What basis of rates is applied from Evanston, Ill., to Lockland, Ohio?

35. What are the existing differences in the rates from Chicago to Cincinnati on traffic as contrasted with Davenport, Iowa.

36.   Outline in brief Trunk Line Territory.

37.   To what extent are the rates in Trunk Line Territory susceptible to active water competition?

38.   How are the rates from Utica to Pittsburgh rate points constructed?

39.   To what cause may be ascribed the depression in the Buffalo-New York rates?

40.   Illustrate the construction of rates from Syracuse, N. Y., to the Pittsburgh-Erie group.

41.   What are the traffic characteristics of the New England Freight Association Territory?

42.   Define the mileage rate of progression and money rate of progression.

43.   Under the New England scale what relationship does sixth-class rate bear to first-class rate?

44.   Which of the adjustments treated in this treatise appears to you as the most scientific and equitable?

CHAPTER VIII

THE NEW YORK-CHICAGO PERCENTAGE RATE SYSTEM

ORIGIN

Having treated the intrastate and intraterritorial rate adjustments obtaining within Official Classification Territory, we shall now take up the interterritorial or so-called percentage system, which is viewed by many as the most scientific and most satisfactory adjustment of freight rates obtaining in this country. In the words of the Commission, this percentage adjustment between Central Freight Association Territory and the east has long been in effect and has given general satisfaction. The Commission has uniformly sustained the carriers' contention that this system of rate-making ought not to be disturbed nor broken in upon even in special cases without strong reason for so doing.[1]

As will be fully explained in the subsequent chapters, the key to this entire adjustment is the New York-Chicago rate and the distance relationship existing between other points and Chicago as contrasted with the haul from Chicago, this procedure determining the development of the various percentage groups.

The percentage plan of making rates in this territory is said to have been proposed in 1876 by John T. McGraham, a rate clerk in the offices of the Pennsylvania Railroad. Although the credit for the introduction of the New York-Chicago rate system has been ascribed to

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[1] 23 I. C. C. Rep. 684-86.

Mr. McGraham, and although this system has been called the McGraham System, it is probable that the percentages were first applied in certain instances only, and that later the application was made general.

The records of the Trunk Line Association indicate that the McGraham table of percentages for determining westbound rates was first applied by the Trunk Lines on December 15, 1871. At this time the percentage prescribed for constructing Peoria rates was 112 per cent of the New York-Chicago rate. This percentage was applied to articles which were assigned a special rate, such as sugar, coffee, and molasses.

It is well known that since 1877 a percentage scale, either the McGraham table or a revision thereof, has been applied to westbound class rates generally and also to any commodity rates which may have been established.

However, Mr. McGraham should be given credit for making the general application of the percentage scheme, which has proved the most satisfactory and stable interstate rate system in the United States and under which, perhaps more than half the freight of the United States and Canada moves either in part or throughout its entire route.

The causes leading to the adoption of a systematic rate system by the Trunk Lines about 1876 are worthy of the consideration of all serious students of rate-making. Between 1874 and 1876 there were only four through lines between Chicago and the Atlantic Seaboard. During this period most disastrous rate wars occurred between these lines. The largest item of traffic was grain, eastbound. As late as 1882, 73 per cent of the eastbound Trunk Line tonnage consisted of grain and grain products. The larger part of this grain traffic was gathered up along the lines east of the Mississippi River. The large elevator centers had not arisen, and the states of

Illinois, Indiana, and Ohio were at this time served by a number of small·cross lines which gathered up the grain and delivered it to one of the Trunk Lines or to a lake line for eastern shipment. Rail rates were still high in comparison with the present rates. They were, on an average, roughly twice the average rate at the present time. Moreover, the conditions of railway operation not having at that time attained the present state of efficiency, water competition was a matter for more concern than at present. Professor William Z. Ripley has well expressed some of the conditions of competition that indicate the gravity of the rate problem at that time in the following paragraphs:

Among these confusing elements in the problem of trunk line rate adjustment five distinct phases were prominent. In the first place the four trunk lines were a unit in opposition to the diversion of traffic to the Great Lakes and the Erie Canal. However much they might bicker with one another afterwards, apportionment of the rail business being a distinct feature of the problem, their interests at the outset were identical respecting the necessity of holding the business on land. Water competition by way of the lakes or the Ohio River was a danger common to them all. The intensity of this pressure may be understood from the statement that the trunk lines were not even consulted in making the Chicago-New York rate on which the western lines prorated. They had no voice in it, merely accepting the figure offered them by their connections into Chicago. The second feature of the problem, namely the division of the all-rail traffic among the competing carriers is immaterial to the main question before us. Thirdly, it was essential to the trunk lines to restrict and control the activities of the subsidiary cross lines and feeders, most of which, as has been said, were independent. Many of these, aside from having a direct interest in their longest haul to a terminus on the lakes or the Ohio River, had been built by local capital, and were administered in the interest of the lake cities or Cincinnati and Louisville. There was no unity whatever in their policies, and the most ridiculous wastes of transportation resulted. Grain was literally meandering toward the east instead of moving by a direct route. Joint through rates would be made by the most extraordinary chain of connecting links leading to the seaboard by various circuitous ways.

A fourth evil, akin to this, consisted of the difficulty of maintaining through rates, not as among the trunk lines who might be made parties to a pool, but by reason of cutthroat competition between their western connections. The agents of these western lines would indiscriminately cut rates to or from points on their lines, and then expect their trunk line connections to accept a proportionate shrinkage of the joint through rate for their part of the haul. The weaker companies would, of course, be susceptible to such temptations in order to secure the business. No stable apportionment of this western traffic among the eastern lines would be possible until they could agree upon a fair rate for the trunk line haul, and rigidly adhere to it. And, finally, water competition, causing constant fluctuations in the lake and Ohio River rates, while directly potent only at water-way points, was continually putting the through rates from these points out of line with the local rates from noncompetitive inland centers. Or, perhaps, the Ohio river and lake rates would be out of joint with one another. The Chicago basis, if applied to Paducah, would make a rate on tobacco that would send it via New Orleans. Products would go down the Mississippi after the lakes had been closed by ice. A considerable amount of corn was certainly moved to New York by that route. Some device for coordination of the through and local rates—or, as one might put it, for the distribution of the localized shock of water-rate changes—was imperatively necessary.[2]

Application of System

The system as first adopted in 1876 made the New York-Chicago rates the basis for other rates between the Atlantic Seaboard and the Central West. Points in Central Freight Association Territory took the percentage of the New York-Chicago rates that distance from New York determined. A point 60 per cent of the New York-Chicago distance from New York, for example, took 60 per cent of the New York-Chicago rates.

In 1879, however, the system was modified, in so far as points east of the Indiana-Illinois state line were concerned, so as to allow for terminal charges before computing the percentage of the New York-Chicago rates.

[2] *Railway Rates and Regulations.*

The general method of the modified system, which is the system still in effect, may be illustrated by a statement of its application to any point. Springfield, Ohio, for example, for eastbound rates is in the 82 per cent group.[3] Xenia, Ohio, is the base point for that group. Its distance to New York at the time this system was established was 700 miles. A rate of 25 cents was assumed as an average rate for all classes and commodities between New York and Chicago. Six cents was then deducted for the terminal charges at both ends of the haul. The remaining 19 cents represented the assumed charge for the haul exclusive of any service at the terminals. This rate of 19 cents being divided by the New York-Chicago distance of 920 miles gave $.000206 as the charge per mile between New York and Chicago. This rate per mile was used as the factor for establishing an assumed rate from any particular junction or competitive point on the basis of its mileage to New York. The charge of $.000206 per mile, above referred to, multiplied by 700, the distance from Xenia, Ohio, to New York gives 14.42 cents; if to this we add the 6 cents representing the terminal expenses at both ends of the movement, we get 20.42 cents as an assumed rate from Xenia to New York. This 20.42 cents is 81.7 per cent of the assumed rate of 25 cents from Chicago to New York; under the application of the general rule obtaining for the disposition of fractions resulting from such computation, a fraction of one-half of a per cent or more is considered a full per cent. A percentage of 82 is thus arrived at as the basis for constructing rates from that group, and the rates from Springfield to New York are, therefore, 82 per cent of the rates from Chicago to New York.

Applying the same formula and using the past-day

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[3] See Map 4. *Atlas of Railway Traffic Maps.*

short-line mileage of 920 miles, the following percentages
are obtained to the points indicated below:

Town	Distance	Rate	Percentage
Cleveland, Ohio	575 mi.	17.85	71%
Detroit, Mich.	662 "	19.63	78 "
Evansville, Ind.	986 "	26.31	105 "
Pittsburgh, Pa.	440 "	15	60 "
Quincy, Ill.	1,130 "	29.28	117 "

The selection of the base points of the groups lies
arbitrarily with the carriers.

This was the system as revised in 1879. There was an
understanding among the carriers not to cut the rates at
competitive points below the established basis. There
was no agreement that rates should not be made more
than those established as minima. However, competition
and the fourth section of the Act to Regulate Commerce
have caused the percentages to be applied as both maxi-
mum and minimum rates.

EASTBOUND v. WESTBOUND GROUPS

A glance at Maps 3 and 4 of the *Atlas of Railway
Traffic Maps* will show some of the differences in per-
centage groups. For example, the 87 per cent group for
eastbound rates shows territory around Charleston,
W. Va., as a slender high-heeled shoe, whereas the west-
bound map shows territory around Charleston in 87 per
cent territory in a very different shape. On the east-
bound rates, Vincennes, Ind., takes 103 per cent rates
and on westbound shipments, 108 per cent. Evansville,
Ind., takes 105 per cent on eastbound shipments and
110 per cent on westbound shipments. The southern
part of the 110 per cent group for eastbound rates
is in the form of a sharp point, whereas for west-
bound rates it spreads to the east in enlarged form. On

westbound rates the percentage is higher for a consider-
able distance north and east of Evansville. The rates
vary, not only for eastbound and westbound movements,
but the groups themselves for both the eastbound and the
westbound rates are irregular, as may be seen by a glance
at Maps 3 and 4.

MODIFICATIONS

Several factors have tended to make the territories
quite irregular, but competition between rival carriers
and between commercial centers has been the chief cause.

1.   The system as first applied affected common points
only, that is, points at which more than one east-and-
west route competed for the business.   Competition
between the carriers tended to extend the groups to the
westward at important junction points. An inspection of
Maps 3 and 4 will show that usually the large centers,
such as Fort Wayne, Indianapolis, Louisville, Evansville,
Peoria, etc., are located either on the extreme western
borders of the percentage groups or very near them.

2.   Another disturbing factor has been the north-and-
south lines. For example, suppose Line X originally lay
across the 96, 97, and 100 per cent groups. If this line
carried business to and from the east, points on the line
must be in the same group; otherwise, there would be a
violation of the fourth section of the Act to Regulate
Commerce. Hence, the demand was made that points on
its lines be accorded the 100 per cent basis, which has
been modified further as is indicated on the maps in the
Atlas of Railway Traffic Maps. Other lines have made
the same complaint, and similar changes have been made.
This factor of the cross-line influence has been very potent
in affecting the grouping.

3.   The third important factor, affecting the grouping
so as to modify a symmetrical arrangement, is that of
commercial competition of the cities and manufacturing

and distributing centers. A number of changes from the
original grouping have been made on this account. Hun-
dreds of requests have been filed with the railways and
freight committees for changes in the grouping of com-
mercial centers, and minor changes are continually being
made. For example, Grand Rapids, Mich., and Saginaw,
Mich., were once in the 100 per cent territory. Grand
Rapids is now accorded 92 per cent territory and
Saginaw, 88 per cent. Shifts in both directions have
sometimes occurred. New roads have been built and new
and shorter routes established since the percentages of
the original groups were assigned. Newly developed
traffic and other conditions have also been considered and
from time to time have led to alterations in the per-
centages of certain points. The effect of these influences
on the form and boundaries of the percentage groups is
not without significance. Changes are continually being
made for commercial considerations. A factory of one
center wishes to be on a parity with the factory of
another, or the dealers of one center wish to be placed on
a parity with those of another. New factories are
being erected and new distributing industries built up
from time to time. In the main, however, the percentage
system has been adhered to rather closely.

No group rates in the United States have been sub-
jected to less change or criticism than the New York-
Chicago percentage system. In the Saginaw case[4] an
attack was made before the Interstate Commerce
Commission on the assignment of a percentage to a
certain group. The complainants did not criticize the
reasonableness of the rates in and of themselves. The
claim was that the rates to Saginaw, Mich., and group
points[5] were too high in comparison with rates to other
groups, more especially to the 78 per cent group including

[4] 17 I. C. C. Rep. 128-38.
[5] See Maps 3 and 4, *Atlas of Railway Traffic Maps.*

Toledo, Detroit, and Port Huron. The Saginaw Valley group takes 92 per cent of the New York-Chicago rates, while Detroit, Toledo, and Port Huron are in the 78 per cent group. The complaint was that the jobbers located in the 78 per cent group could supply the retail dealers in territory that should be contributory to Saginaw at less cost than could the Saginaw shippers.

The percentage of the Saginaw and Flint group was arrived at originally on the basis of the mileage by the Pere Marquette Railroad from Flint to Toledo and thence by the Pennsylvania Lines to New York. This haul, in 1892, when the rates were adjusted to this group, was a distance of 828 miles, and on the formula of distance rates between New York and Chicago, Flint was given the 92 per cent basis. This percentage was extended to Saginaw, which is even further from New York than Flint. At that time, the Grand Trunk Route through Port Huron to Saginaw was 823 miles from New York, which gives Saginaw practically the same percentage.

Later, however, the Grand Trunk reduced its distance from Port Huron to Buffalo from 229 to 196 miles. The complainants made the plea that since the short-line distance between Saginaw and New York through the Port Huron gateway was only 731 miles, Saginaw should be placed in 84 per cent territory according to the New York-Chicago percentage basis. The Commission, however, made the point that since Saginaw was off the main route of heavy traffic between New York and Chicago, the reason for according Saginaw its short-line percentage was not so valid as for allowing Detroit and Toledo the advantage of their location on both the lake and the rail routes between the east and the west. There is little through traffic to and from the west through Saginaw.

The Commission stated that the upper part of the peninsula of Michigan, not being a heavy traffic district,

should not be placed on the same basis as such gateways
as Detroit and Toledo; that if the rates were reduced to
the Saginaw Valley, the rates would necessarily have to
be adjusted to other points in the sparsely settled upper
part of the peninsula; and that these rates would apply
via the longer routes south of the lakes as well as via the
shorter routes through Port Huron. The latter condition
would cause violations of the fourth section of the Act
to Regulate Commerce. For these reasons the Commis-
sion was of the opinion that the Saginaw rates were not
discriminatory.

FEDERAL APPROVAL

In the decision of the Saginaw case the Commission
made the following comment on the New York-Chicago
rate system:

> While it is not always a simple matter when examining a map
> of the percentage group territory to understand and at once
> comprehend the causes that have produced zones or groups of
> such irregular outline, nevertheless, a careful study of particular
> groups, and some knowledge of the transportation conditions
> that surround and effect them, have given us the general impres-
> sion that their boundaries have been established upon substantial
> and presumably sound grounds. The fact that no group rates
> in this country have been subjected to less criticism than the
> rates to and from the percentage-basis territory and the
> Atlantic coast is some evidence of the care with which the
> system has been developed.[6]

The formula employed in establishing the percentage
groups in the case of traffic destined to points east of the
Indiana-Illinois state line differs from that employed in
the case of traffic destined to points beyond.

As opposed to the principles applying east of the
Indiana-Illinois state line just given, the distance rela-
tionship was not preserved to the same degree west of
that line. The present-day groupings were established in

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[6] 17 I. C. C. Rep. 132.

their original form in 1877 and at that time the traffic of Illinois was neither heavy nor as highly competitive as it is today. Peoria, Ill., was then the principal town (in Illinois) west of Chicago, and the distance from New York to Peoria was 110 per cent of that to Chicago. Peoria was accordingly given the 110 per cent rate. Most of the territory between Peoria on the west and the Indiana-Illinois state line on the east was thrown into one broad group taking the 110 per cent rate. It is believed that at one time no other rate was applied within all this territory, but subsequently, upon the insistence of certain localities, two or three towns were given lower rates.

As disclosed by the *Atlas of Railway Traffic Maps*, there are numerous small groups west of the 110 per cent group, taking rates of 112, 113, and 115 per cent of the New York-Chicago rate. The greater part of the state, however, is assigned to the 110, 116, 117, and 120 per cent groups.

It will be observed in this adjustment that in determining the percentage relationship, the basing rates and terminal charge employed east of the Indiana-Illinois state line are disregarded and the relationship is determined solely by that of the New York-Chicago mileage as contrasted with the New York base-point mileage.

Peoria, Ill., is selected as the base point for the 110 per cent group. The present-day short-line distance to this point is 1,001 miles, which is approximately 110 per cent of the New York-Chicago distance of 912 miles.

Likewise, the distance from New York to East St. Louis, Ill. (1,045 miles), is approximately 116 per cent of that to Chicago. Originally, East St. Louis was given a 116 per cent rate but subsequently (1907), when the rates to St. Louis and East St. Louis were made the same, this was increased to 117 per cent and the bridge toll on which rates to St. Louis were previously made was abolished.

Concurrent with the change in rates to St. Louis, the area of the 117 per cent territory was drawn considerably to the east and at one time included Springfield, Ill.

This adjustment, so far as Springfield is concerned, continued until December 1, 1913, when the Commission upon investigation prescribed as reasonable rates for the future those obtaining under the 113 per cent scale.

Several other complaints have been heard and readjustments prescribed, resulting in the reduction of class and commodity rates to Elgin, Ill., from the 110 to the 107 per cent basis, and of class rates to Rockford, Ill., from the 116 to the 112 per cent basis, and to Freeport, Ill., from 117 to 114 per cent of the New York-Chicago rate.

With the exception of the points mentioned and possibly some few others, the percentage-rate designations applied to points west of the Indiana-Illinois state line do not express the relations which the distances from New York to the points in question bear to the distance from New York to Chicago. They are used merely to indicate the relationship of rates. Oftentimes, it will be observed that the transition from one group to another is abrupt, as from 100 to 110 and 110 to 117. A study of the construction of rates under the percentage system will clearly show how satisfactory this method proves in actual practice.

1	2	1
		90
12	10	77
		72
3	3	①77 ②80
		63
12	10	84 71
1	1	①71 ②76
12	10	82 69
		①69 ②74
		90
		85
12	10	77
		72
8	6	①77 ②85

①To Chicago (onl
②To points other

TABLE 14
Class Rates from and to Chicago via Various Standard and Differential Routes
Governed by the Official Classification

EASTBOUND Differentials (Classes)						EASTBOUND Through Rates (Classes)								RATES To	From	WESTBOUND Through Rates (Classes)								WESTBOUND Differentials (Classes)					
1	2	3	4	5	6	1	2	3	4	5	6	R25	R26			1	2	3	4	5	6	R25	R26	1	2	3	4	5	6
														NEW YORK															
						90	79	60	42	36	30	67	48	All-Rail Standard		90	79	60	42	36	30	67	48						
														Rail-and-Lake															
12	10	7	5	4	4	78	69	53	37	32	26	59	43	Standard		77	68	51	37	31	26	58	38	13	11	9	5	5	4
														Differential Canada Atlantic Transit Co.		72	64	48	34	29	23	54.5	43.5	18	15	12	8	7	5
														Ocean-and-Rail															
														Kanawha Dispatch															
3	3	3	3	2	2	87	76	57	39	34	28	64.5	45.5	Norfolk & Western Despatch		①77	68	51	37	31	26	58	38	13	11	9	5	5	4
														Cumberland Gap Despatch		②80	71	54	38	32	27	60.5	43	10	8	6	4	4	3
														National Despatch Line															
														Great Eastern Line															
														Canal-and-Lake															
							(No through joint rates eastbound)							Great Lakes Canal Line—Great Lakes Transit Corporation		63	56.5	42.5	31	26.5	22.5	44	34	26.8	22.3	17.5	10.8	9.5	7.3
														PHILADELPHIA															
						88	77	58	40	34	28	65.5	46.5	All-Rail Standard		84	73	58	40	34	28	63	46.5						
12	10	7	5	4	4	76	67	51	35	30	24	57	41	Rail-and-Lake Standard		71	62	49	35	29	24	52.5	39	13	11	9	5	5	4
														Ocean-and-Rail															
														Kanawha Dispatch															
1	1	1	1	1	1	87	76	57	39	33	27	65.5	45.5	Norfolk & Western Despatch		①71	62	49	35	29	24	52.5	39	13	11	9	5	5	4
														Cumberland Gap Despatch		②76	67	54	47	32	26	57	43	8	6	4	3	2	2
														BALTIMORE															
						87	76	57	39	33	27	64.5	45.5	All-Rail Standard		82	71	57	38.5	32.5	26.5	60.5	45						
12	10	7	5	4	4	75	66	50	34	29	23	56	40	Rail-and-Lake Standard		69	60	48	33.5	27.5	22.5	51	38.5	13	11	9	5	5	4
														Ocean-and-Rail															
		(No Differentials)												Kanawha Dispatch															
						87	76	57	39	33	27	64.5	45.5	Norfolk & Western Despatch		①69	60	48	33.5	27.5	22.5	51	38.5	13	11	9	5	5	4
														Cumberland Gap Despatch		②74	65	53	35.5	30.5	24.5	55	42.5	8	6	4	3	2	2
														BOSTON															
														All-Rail															
						97	85	65	46	39	32	72.5	52	Standard		90	79	60	42	36	30	67	48						
														Differential															
														National Despatch–Great Eastern Line.															
														Canadian Pacific Despatch		85	75	57	39	34	29	64	45.5	5	4	3	3	2	1
														Rutland-Michigan Central Line															
														R. W. & O. Line															
														Rail-and-Lake															
12	10	7	5	4	4	85	75	58	41	35	28	64	46	Standard		77	68	51	37	31	26	58	41	13	11	9	5	5	4
														Differential Canada Atlantic Transit Co.		72	64	48	34	29	25	54.5	38.6	18	15	12	8	7	5
														Ocean-and-Rail															
														Kanawha Dispatch															
8	6	4	3	2	2	89	79	61	43	37	30	67	49	Norfolk & Western Despatch		①77	68	51	37	31	26	58	41	13	11	9	5	5	4
														Cumberland Gap Despatch		②85	75	57	39	34	29	64	45.5	5	4	3	3	2	1
														Merchants & Miners Transportation Co. (B. & O. R. R.)															

①To Chicago (only) during the season of lake navigation.
②To points other than Chicago taking Chicago group rates, also to Chicago during season of closed lake navigation.

**1HE NEW YORK-CHICAGO PERCENTAGE RATE
SYSTEM—Continued**

ROUTES

The method under which the percentage groups are
determined having been set forth, it is well, at this time,
to consider the existing rates applying between New
York and Chicago, since they are the basing rates which
are used to determine the rates between New England
and Trunk Line territories on the one hand and Central
Freight Association Territory on the other, as well as
some points in Eastern Canada.

Table 14 shows the westbound class rates from New
York and other seaboard points to Chicago, via the vari-
ous classes of routes, and the differentials that specified
routes are conceded under the all-rail rates.

The necessity of these differentials is to equalize the
competition of the direct and indirect lines. It is only
natural that the more circuitous lines and those having a
relatively slower service should adjust their rates with
relation to the rates established by the direct all-rail lines,
making the direct all-rail rates the standard by which the
other rates are measured. From this comes the term
"standard all-rail rates."

Diagram 9 indicates several of the more important
routes serving Chicago and New York. The all-rail
routes are indicated by line 1; the rail-and-lake routes by
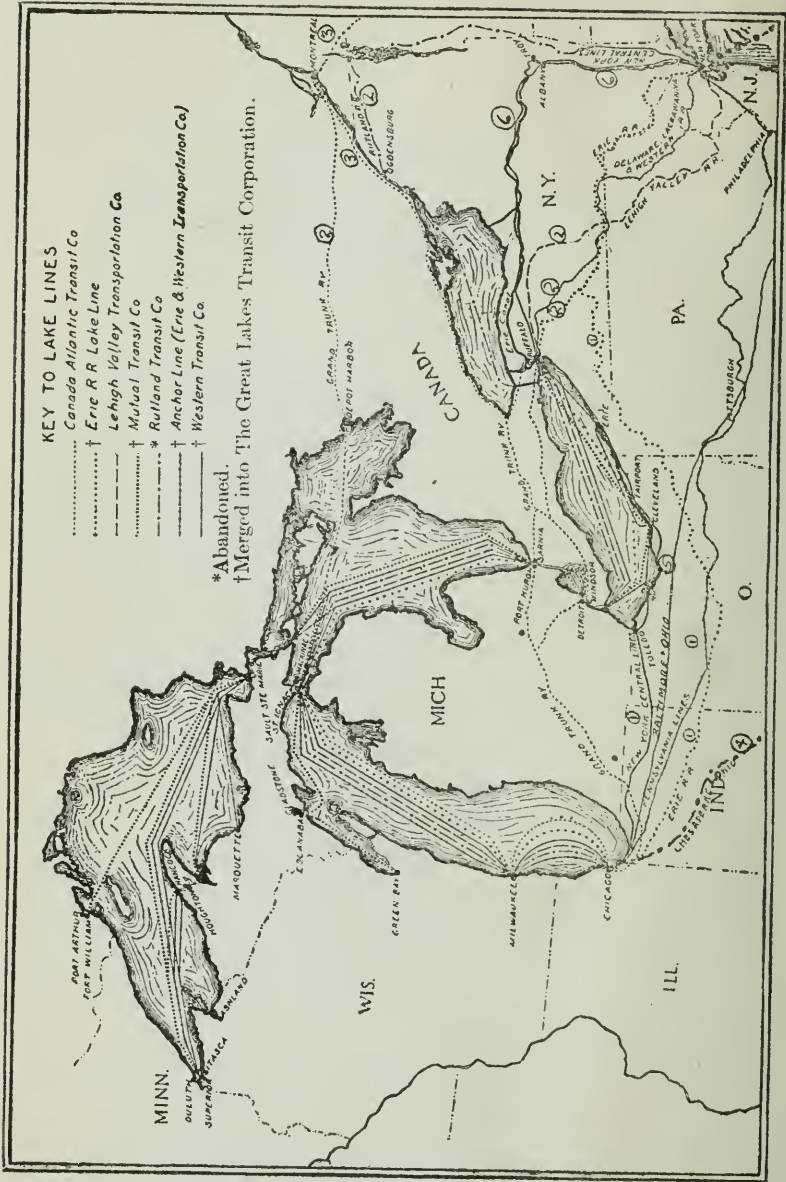line 2; Long Island Sound and the Canadian routes by

KEY TO LAKE LINES

.... Canada Atlantic Transit Co
† Erie R R Lake Line
———— † Lehigh Valley Transportation **Co**
.... † Mutual Transit Co
——— * Rutland Transit Co
—·—·— † Anchor Line (Erie & Western **Transportation** Co)
———— † Western Transit Co

*Abandoned.
†Merged into The Great Lakes Transit Corporation.

DIAGRAM 9

line 3; the ocean-and-rail routes through Virginia ports by line 4; the ocean-and-rail routes, through Baltimore by line 5; Hudson River and Erie Canal by line 6.

During the season of navigation on the Great Lakes there is not much choice between the service rendered via the rail-and-lake routes and that via the ocean-and-rail routes through the Virginia ports and Baltimore. Since the character of the service is the same, necessitating transshipping from vessel to car, or vice versa, at one or more of the ports, we find that the charges or rates of transportation are adjusted on approximately the same basis.[1]

The route through Long Island Sound to New London, Conn., and thence via the Central Vermont Railway and its Canadian connections not only involves the transshipment feature but also a much greater distance. To offset this disadvantage, the rates via this line are adjusted on a somewhat lower basis than that which obtains under the ocean-and-rail and rail-and-lake routes.

Transportation by way of the Hudson River, the Erie Canal, and the Great Lakes naturally attracts only the lower classes of traffic, in which service and the element of time are minor considerations. The length of time needed for the journey, the various transshipments required, and the element of risk and marine insurance all warrant the establishment of rates via this route on a lower scale than is accorded any of the other routes serving the community.

However, as the rail-and-water adjustment constitutes a later chapter of this treatise, we shall not attempt at this time to go into the matter at any length. Suffice it to say that shippers or receivers of freight who can avail

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[1] Note that the ocean-and-rail rates are higher during the season when lake navigation is closed.

themselves of these differential routes can effect a material saving in the transportation charges as compared with the all-rail rates and routes.

To exemplify further the disparity in the eastbound and westbound adjustments, Tables 15 and 16 show a representative line of commodity rates in each direction.

TABLE 15[1]

COMMODITY RATES VIA STANDARD ALL-RAIL LINES FROM NEW YORK TO CHICAGO

COMMODITY	[2]RATE
Bagging, burlap	30
Brick, common	28
Cement	22
Coffee	36
Ferro manganese	6.00[3]
Fuller's earth	26.5
Kainit	26.5
Lemons	48.5
Oranges	48.5
Oysters	48
Oyster shells, crushed	23
Paving blocks, stone	26.5
Petroleum oil	33
Potash, muriate of	26.5
Salt	24
Soda, bicarbonate of	26.5
Sugar	31.5
Sulphur, crude	23
Tin, pig	29
Wood pulp	26.5
Zinc ashes	6.00[4]

[1]Rates are governed by the Official Classification.
[2]Unless otherwise specified, rates are in cents per 100 pounds in carloads.
[3]Per ton of 2,240 pounds.
[4]Per ton of 2,000 pounds.

It will be noted from Table 15 that the commodities are such as are peculiar to the east, as manufactured articles, imported commodities, or natural products.

TABLE 16[1]

COMMODITY RATES VIA STANDARD ALL-RAIL LINES FROM
CHICAGO TO NEW YORK

COMMODITY	[2]RATE
Asphaltum	24
Binders, board	24
Brick	25.5
Cattle	38
Cement	22
Copper	24
Grain	24.5
Grain products	25
Hogs	38
Horses and mules	74
Iron and steel articles, for export	32.5
Lead	22
Magazines (returned)	42
Meat, fresh	55
Ore, copper	24
Salt	27
Sodas	26.5
Spelter	19.5
Syrup, corn	29

[1]Rates are governed by the Official Classification.
[2]Rates are in cents per 100 pounds in carloads.

Table 16 shows rates under the eastbound commodity
adjustment which are confined to articles produced in
large quantities and which constitute no small propor-
tion of the traffic in so far as the middle west is con-
cerned. It will be observed that on articles which are
produced in the east and west, such as cement and soda,
the rates are the same in both directions. This procedure
puts manufacturers and dealers in this line of articles on
a parity as to rates.

The rates on these few representative articles have
been reproduced in order to give a more definite idea of
the rates between New York and Chicago than could be
obtained from the table of class rates. The rates between
New York and Chicago, both class and commodity, are

the base factors on which rates are constructed between all points east of the Western Termini on the one hand and all Central Freight Association points on the other. There are some modifications in the system in its application to class rates, and there are many more in its application to commodity rates. However, the system is applied to commodity rates to a considerable degree as well as to class rates generally throughout the territory, overlapping in some cases into Canadian Freight Association Territory on the north and into Southern Territory on the south.

CHAPTER X

From New York and New York Rate Points to Western Percentage Groups

(a) Class Rates

In the chapter devoted to the development of the percentage system, mention was made of the fact that in some cases a point does not fall in the same group on westbound traffic that it does on eastbound traffic. Special emphasis is laid upon this point at this time. A comparison of Maps 3 and 4 of the *Atlas of Railway Traffic Maps* will disclose many instances of this kind. Evansville, Ind., is in the 110 per cent group under the westbound adjustment and in the 105 per cent group under the eastbound adjustment. Findlay, Ohio, is in 80 per cent territory on westbound and 79 per cent territory in eastbound. Consequently, the respective maps should be referred to in each instance to determine accurately the group location of the point of destination or the point of origin involved.

As Chicago, Ill., however, is in the 100 per cent group on both Maps 3 and 4, it is natural to find that the rates via the standard all-rail routes in both directions are the same on classified freight, the current rates being as follows:

Classes	1	2	R25	3	R26	R28	4	5	6
Rates	90	79	67	60	48	48.5	42	36	30

To illustrate how these rates are used as the basis or basing rates on which the class rates are constructed to

111

points other than Chicago (and those in the 100 per cent group), the following examples are given:

Indianapolis, Ind., is shown on Map 3 of the *Atlas of Railway Traffic Maps,* in a group designated by the numeral 93, which indicates that points in this group take 93 per cent of the New York-Chicago rates, and applying this percentage to the above-mentioned scale, the following rates are obtained:

Classes	1	2	3	4	5	6
Rates	\$3.70	73.47	55.80	39.06	33.48	27.90

Under the application of the rule for the disposition of fractions, those of less than ¼ or .25 of a cent omit. Fractions of ¼ or .25 or greater, but less than ¾ or .75, state as ½ or .5 of a cent. Fractions of ¾ or .75 of a cent or greater, increase to the next whole figure.

Classes	1	2	3	4	5	6
Rates	83.5	73.5	56	39	33.5	28

As the irregular classes, namely, Rule 25, Rule 26, and Rule 28, are predicated on the regular classes, they cannot be constructed by taking the required percentage of the Chicago rates for the irregular classes, but must be constructed with reference to the regular classes established to the group points. For example, the second-class rate to Indianapolis is shown as 73.5 cents, and as Rule 25 is made 15 per cent less than the second-class rate, by deducting 15 per cent of this amount, which is 11 cents, we obtain 62.5 cents, or 62.5 cents, as the Rule-25 class rate, New York to Indianapolis. Similarly, were it desired to construct the rate on Rule 26, we would deduct 20 per cent of the third-class rate (or 11 cents) from the third-class rate of 56 cents, obtaining 44.8 cents as the result, which is the Rule-26 class rate, New York to Indianapolis.

The class rate for Rule 28 is based upon the existing difference between the third-class and fourth-class rates

established to the points in question. In this instance, as this difference amounts to 17 cents according to the figures set forth in Table 4, 5.95 cents, or 6 cents, is added to the fourth-class rate, making the rate 45 cents.

Following the procedure outlined above, it is possible to construct the rates from New York to any point in the percentage groups. The computations may be readily proved by comparing them with the new York percentage-group class rates shown in Table 17 which are reproduced from tariff publications of the carriers.

TABLE 17①

CLASS RATES FROM NEW YORK, N. Y., VIA STANDARD ALL-RAIL ROUTES TO PERCENTAGE GROUPS SHOWN ON MAP 3

To PERCENTAGE GROUPS	Classes								
	RATES IN CENTS PER 100 POUNDS								
	1	2	3	4	5	6	R25	R26	R28
66½	60	52½	40	28	24	20	44½	32	32
67	60½	53	40	28	24	20	45	32	32
68	61	53½	41	28½	24½	20½	45½	33	33
69	62	54½	41½	29	25	20½	46½	33	33½
70	63	55½	42	29½	25	21	47	33½	34
71	64	56	42½	30	25½	21½	47½	34	34½
72	65	57	43	30	26	21½	48½	34½	34½
73	65½	57½	44	30½	26½	22	49	35	35
74	66½	58½	44½	31	26½	22	49½	35½	35½
75	67½	59½	45	31½	27	22½	50½	36	36
76	68½	60	45½	32	27½	23	51	36½	36½
77	69½	61	46	32½	27½	23	52	37	37
78	70	61½	47	33	28	23½	52½	37½	38
79	71	62½	47½	33	28½	23½	53	38	38
80	72	63	48	33½	29	24	53½	38½	38½
81	73	64	48½	34	29	24½	54½	39	39
82	74	65	49	34½	29½	24½	55½	39	39½
83	74½	65½	50	35	30	25	55½	40	40½
84	75½	66½	50½	35½	30	25	56½	40½	41
85	76½	67	51	35½	30½	25½	57½	41	41
86	77½	68	51½	36	31	26	58	41	41½
87	78½	68½	52	36½	31½	26	58	41½	42
88	79	69½	53	37	31½	26½	59	42½	42½
89	80	70½	53½	37½	32	26½	60	43	43
90	81	71	54	38	32½	27	60½	43	43½
91	82	72	54½	38	33	27½	61	43½	44
92	83	72½	55	38½	33	27½	61½	44	44½
93	83½	73½	56	39	33½	28	62½	45	45
94	84½	74½	56½	39½	34	28	63½	45	45½
95	85½	75	57	40	34	28½	64	45½	46
96	86½	76	57½	40½	34½	29	64½	46	46½

TABLE 17—Continued

CLASS RATES FROM NEW YORK, N. Y., VIA STANDARD ALL-RAIL
ROUTES TO PERCENTAGE GROUPS SHOWN ON MAP 3

To PERCENTAGE GROUPS	Classes RATES IN CENTS PER 100 POUNDS								
	1	2	3	4	5	6	R25	R26	R28
97	87½	76½	58	40½	35	29	65	46½	46½
98	88	77½	59	41	35½	29½	66	47	47½
99	89	78	59½	41½	35½	29½	66½	47½	48
100	90	79	60	42	36	30	67	48	48½
101	91	80	60½	42½	36½	30½	68	48½	49
102	92	80½	61	43	36½	30½	68½	49	49½
103	92½	81½	62	43¾	37	31	69½	49½	50
104	93½	82	62½	43½	37½	31	69½	50	50
105	94½	83	63	44	38	31½	70½	50½	50½
106	95½	83½	63½	44½	38	32	71	51	51
107	96½	84½	64	45	38½	32	72	51	51½
108	97	85½	65	45½	39	32½	72½	52	52½
109	98	86	65½	46	39	32½	73	52½	53
110	99	87	66	46	39½	33	74	53	53
111	100	87½	66½	46½	40	33½	74½	53	53½
112	101	88½	67	47	40½	33½	75	53½	54
113	101½	89½	68	47½	40½	34	76	54½	54½
114	102½	90	68½	48	41	34	76½	55	55
115	103½	91	69	48½	41½	34½	77½	55	55½
116	104½	91½	69½	48½	42	35	78	55½	56
117	105½	92½	70	49	42	35	78½	56	56½
118	106	93	71	49½	42½	35½	79	57	57
119	107	94	71½	50	43	35½	80	57	57½
120	108	95	72	50½	43	36	80½	57½	58

①Reproduced from N. Y. C. R. R. I. C. C. N. Y. C. No. 4809

(b) Commodity Rates

The commodity-rate adjustment very closely follows that employed in establishing the class rates. There is, however, this distinction to be observed, that while some commodities have what is known as a general authorization applying from all of the eastern base points to all of the western percentage groups, other commodities are specifically authorized, and the rates thereon, known as specific commodity rates, apply only from and to specified points of origin and destination. Although both may be made under the percentage principle, the former

class takes in such articles as are not peculiar to any one given point but are produced in considerable quantities throughout the territory, such as sandstone, lime, manufactured iron, and cement, of which it may be reasonably supposed there is a movement from and to all points, while the latter class takes in such articles as may be produced or manufactured in one locality, or which move from one or more of the seaboard cities, such as charcoal, electrical machinery, or import traffic. For example, considerable quantities of coffee might be imported through the north Atlantic ports as well as minerals, chemicals, and other commodities not common to this country. As they would unquestionably move from port of entry to final destination, there is no necessity for publishing a rate on carload shipments of coffee from such interior points as Ogdensburg, New Berlin, and Rochester, N. Y., Scranton, Pa., or others. Charcoal is manufactured and shipped from Rochester, N. Y. Consequently, we find in the publications of the carriers that these rates are authorized to apply only from specified points of origin and in some cases to specified destinations.

Where a commodity has a general authorization, however, it is scaled in accordance with the percentage principle announced in connection with the class rates. The same process is generally employed on low-grade commodities or on highly competitive articles with the reservation that in some cases fractions are not perpetuated and frequently minimum rates are established which defeat the application of the percentage basis in so far as some few points may be concerned.

The rates from New York and New York rate points to western percentage groups on ten selected commodities are reproduced in Table 18.

TABLE 18⊙

Commodity Rates for 10 Commodities in Carloads from
New York Rate Points to Percentage Groups 60-120
Rates in Cents per 100 Pounds, Unless Otherwise Specified.

PERCENTAGE GROUPS	Pig Lead	Brimstone	Clay	Woods of Value	Ammunition (Fixed)	Cordage	Oysters in Shells	Bags, New Cotton	Pig Iron⊙	Axles, Car, Old⊙
60.........	15.5	15	17	21.5	25	21.5	34	36	$3.10	$3.20
67.........	15.5	17	19.5	21.5	25	24	34	38.5	3.90	4.00
70.........	15.5	18	19.5	21.5	25	25	34	38.5	4.00	4.20
71.........	15.5	18	19.5	21.5	25	25.5	34	38.5	4.10	4.30
72.........	16	19.5	19.5	21.5	25	26	34.5	39	4.10	4.30
73.........	16	19.5	19.5	22	25	26.5	35	40	4.20	4.40
74.........	16.5	19.5	19.5	22	25	26.5	35.5	40.5	4.30	4.40
75.........	16.5	19.5	19.5	22.5	25	27	36	41	4.30	4.50
76.........	16.5	19.5	19.5	23	25	27.5	36.5	41.5	4.40	4.60
77.........	17	19.5	19.5	23	25	27.5	37	42	4.40	4.60
78.........	17	19.5	19.5	23.5	25	28	37.5	42.5	4.50	4.70
79.........	17.5	19.5	19.5	23.5	25	28.5	38	43	4.50	4.70
80.........	17.5	19.5	19.5	24	25	29	38.5	43.5	4.60	4.80
81.........	18	19.5	19.5	24.5	25	29	39	44	4.70	4.90
82.........	18	19.5	19.5	24.5	25.5	29.5	39	44.5	4.70	4.90
83.........	18.5	19.5	20	25	25.5	30	40	45	4.80	5.00
84.........	18.5	19.5	20	25	26	30	40.5	46	4.80	5.00
85.........	18.5	19.5	20.5	25.5	26.5	30.5	41	46.5	4.90	5.10
86.........	19	20	20.5	26	26.5	31	41	47	4.90	5.20
87.........	19	20	21	26	27	31.5	41.5	47.5	5.00	5.20
88.........	19.5	20	26	26.5	27.5	31.5	42.5	48	5.10	5.30
89.........	19.5	20.5	21	26.5	27.5	32	43	48.5	5.10	5.30
90.........	20	20.5	26	27	28	32.5	43	49	5.20	5.40
91.........	20	21	22	27.5	28	33	43.5	49.5	5.20	5.50
92.........	20	21	22	27.5	28.5	33	44	50	5.30	5.50
93.........	20.5	21.5	22.5	28	29	33.5	45	50.5	5.30	5.60
94.........	20.5	21.5	22.5	28	29	34	45	51	5.40	5.60
95.........	21	22	23	28.5	29.5	34	45.5	52	5.50	5.70
96.........	21	22	23	29	30	34.5	46	52.5	5.50	5.80
97.........	21.5	22.5	23.5	29	30	35	46.5	53	5.60	5.80
98.........	21.5	22.5	23.5	29.5	30.5	35.5	47	53.5	5.60	5.90
99.........	22	23	24	29.5	30.5	35.5	47.5	54	5.70	5.90
100.........	22	23	24	30	31	36	48	54.5	5.75	6.00
101.........	22	23	24	30.5	31.5	36.5	48.5	55	5.80	6.10
102.........	22.5	23.5	24.5	30.5	31.5	36.5	49	55.5	5.90	6.10
103.........	22.5	23.5	24.5	31	32	37	49.5	56	5.90	6.20
104.........	23	24	25	31	32	37.5	50	56.5	6.00	6.20
105.........	23	24	25	31.5	32.5	38	50.5	57	6.00	6.30
106.........	23.5	24.5	25.5	32	33	38	51	58	6.10	6.40
107.........	23.5	24.5	25.5	32	33	38.5	51	58.5	6.20	6.40
108.........	24	25	26	32.5	33.5	39	52	59	6.20	6.50
109.........	24	25	26	32.5	34	39	52.5	59.5	6.30	6.50
110.........	24	25.5	26.5	33	34	39.5	53	60	6.30	6.60
111.........	24.5	25.5	26.5	33.5	34.5	40	53	60.5	6.40	6.70
112.........	24.5	26	27	33.5	34.5	40.5	53.5	61	6.40	6.70

TABLE 18①—Continued

COMMODITY RATES FOR 10 COMMODITIES IN CARLOADS FROM
NEW YORK RATE POINTS TO PERCENTAGE GROUPS 60-120
RATES IN CENTS PER 100 POUNDS, UNLESS OTHERWISE SPECIFIED

PERCENTAGE GROUPS	Pig Lead	Brimstone	Clay	Woods of Value	Ammunition (Fixed)	Cordage	Oysters in Shells	Bags, New Cotton	Pig Iron②	Axles, Car. Old③
113........	25	26	27	34	35	40.5	54.5	61.5	6.50	6.80
114........	25	26	27.5	34	35.5	41	55	62	6.60	6.80
115........	25.5	26.5	27.5	34.5	35.5	41.5	55	62.5	6.60	6.90
116........	25.5	26.5	28	35	36	42	55.5	63	6.70	7.00
117........	25.5	27	28	35	36.5	42	56	64	6.70	7.00
118........	26	27	28.5	35.5	36.5	42.5	57	64.5	6.80	7.10
119........	26	27.5	28.5	35.5	37	43	57	65	6.80	7.10
120........	26.5	27.5	29	36	37	43	57.5	65.5	6.90	7.20

①Check with N. Y. C. R. R. Tariff 6457 effective May 15, 1918.
②Per ton of 2240 lbs.

From the foregoing, it may be observed that in all cases the rates as indicated are not a corresponding percentage of the base rates to Chicago. The rate on pig lead from New York to Chicago is given as 19 cents. Sixty per cent of this amount would be 11.4 cents, but, as disclosed by the table, the rate established to the 60 per cent group on this commodity is 13.1 cents. This procedure is necessary because a strict application of the percentage principles for such low-grade commodities as cement, pig lead, brimstone, etc., to short-haul points would result in a rate which would hardly cover the expense of transportation. Consequently, it will be found that in connection with many commodities moving to the 60 per cent group, minimum rate requirements are provided. These requirements are designed to insure to the carrier adequate return for the service rendered, considering all destinations in the group. For example, while 11.4 cents might yield an adequate return as applied to points immediately west of Buffalo, to points

in the western extremity of the 60 per cent group, such as Erie, Pa., Wheeling, W. Va., and Meadville, Pa., etc., the rate would not yield its proper proportion of transportation revenue.

So we find, in connection with this table, that a special basis has been authorized to apply in connection with the rates applying on pig lead, brimstone, and fixed ammunition.

In its decision in the so-called "Five-Per-Cent Case," the Interstate Commerce Commission held that where rates had been increased since July 29, 1914, such rates were not to be increased again so as to exceed those in effect on that date by an aggregate of more than 5 per cent. The rates on pig lead, brimstone, and fixed ammunition were increased, effective during December, 1914, so that with the exception of certain of the rates on brimstone, which situation is explained herein, no advances were made in the rates on these commodities. The rule for the disposition of fractions where no increases were made is as follows: fractions of one-half cent and over are computed as whole numbers and fractions of less than one-half cent are disregarded.

On brimstone a basing rate of 23 cents from New York to Chicago is used, subject to the following minimum rates from New York:

Points taking over 71 per cent..............17 cents
Points taking 70 and 71 per cent...........16 cents
Points taking 67 per cent.................15 cents
Points taking 60 per cent.................13 cents

On fixed ammunition, that is, cartridges, paper or metallic shells, a base rate of 31 cents from New York to Chicago is used, observing the rates established to the 80 per cent group as minimum rates to all points taking less than 80 per cent.

The rate on pig lead is established on a basing rate of
22 cents from New York to Chicago, subject to the rate
to 71 per cent group points as minimum to points east of
the 71 per cent group. The 22-cent basis represents more
than 5 per cent increase over the former basing rate of
19 cents so that it was not possible to increase the
basing rate under the decision of the Commission. The
former basing rate of 19 cents increased 5 per cent,
yields a basing rate of 20 cents. Under this basing rate,
71 per cent group points would take a rate of 14.2 cents.
This method of figuring was used by the carriers in fixing
the rate to 71 per cent group points, which figure is used
as a minimum to points east thereof.

The greater portion of the deviations from the author-
ized percentage principle of establishing rates will be
found in the eastern percentage groups. In many cases,
to the Western Termini Points proper, the percentage
principle is disregarded entirely. Buffalo, N. Y., while
shown in the 60 per cent group in the *Atlas of Railway
Traffic Maps* is not always so regarded as it is so situ-
ated with respect to water competition to and from the
seaboard by way of the Erie Canal and the Hudson River
that the rates have been depressed somewhat below the
rate obtaining under the percentage adjustment. To influ-
ence the movement of some commodities, it is necessary
for trunk lines not serving Buffalo to establish the same
rates to their western termini, such as Pittsburgh, Pa.,
Wheeling, W. Va., and Charleston, W. Va., as those
made to Buffalo, as the competition for business through
these points to and from the west is very keen among
these independent systems.

As the distance from the point of origin becomes
greater, these exceptions become more rare. The per-
centage principle is generally adhered to, except perhaps
as to such commodities as brimstone, which, on account

of being consumed at few points, is greatly restricted in its movement. The fact that the imported product comes into competition with the domestic product from the Louisiana mines necessitates the blanketing of rates over a larger territory than would obtain were it not for these conditions. Consequently, rather than establish a high rate in the first instance and scale it in accordance with the percentage adjustment, a low rate is established and observed as a minimum throughout a large part of the territory. It will be observed, as far as this commodity is concerned, that 17 cents is held as a minimum rate in a blanket applying from the 72 per cent to the 87 per cent groups, inclusive. By this means the consuming points are placed on a parity with each other on this particular traffic.

It will be observed that the other commodities, however, are scaled on the authorized percentage basis and that the fractions are perpetuated under the rule for the disposition thereof, set forth in connection with the discussion relating to the class rates.

It is possible to take any one of the publications of the carriers in Trunk Line Territory, naming commodity rates from eastern points of origin to western percentage territory, and check the rates published therein from the information set forth in this particular section. An inspection of the rate, whether it carries a fraction or not, will indicate whether it is on the old basis or the new, and where it is blanketed or extended over a large area of territory, one may safely infer that the minimum rate is that established to the furthermost percentage group.

And for those who have access to such publications, there is no more convenient method to employ than to take one and compute the rates shown therein on the basis set forth in this chapter.

THE ADJUSTMENT OF RATES FROM OTHER EASTERN
BASING POINTS

(a) Class Rates

It has been shown how the rates established from New
York to Chicago are used in establishing rates from
New York to other points in percentage territory. It
now becomes necessary to illustrate the application of
the New York rates from other eastern points of origin,
which are hinged or based on the rates established from
New York. In taking up the adjustment, reference
should be made to Map 9 of the *Atlas of Railway Traffic
Maps,* whereon are indicated the more important of the
eastern base points, showing the territory from which
the rates are applied. The eastern basing points as
indicated thereon are as follows:

Albany, N. Y.	Syracuse, N. Y.	Boston, Mass.
Philadelphia, Pa.	Belington, W. Va.	Ogdensburg, N. Y.
Scranton, Pa.	Lexington, Va.	Rochester, N. Y.
Baltimore, Md.	Richwood, W. Va.	Virginia Cities.
Cumberland, Md.	Williamsport, Pa.	

The last-named group includes, among others, Newport
News, Lynchburg, Richmond, and Petersburg, Va.

In addition to these groups, there are a number of
other groups indicated by the addition of the word
"plus" or the sign "+." For example, rates from
Long Island are made certain differentials over the New
York rates and this is indicated on the map by the
term "New York plus." Also the group immediately

south of New Jersey is marked "New York plus" and
for the same reason. There are numerous other groups
marked as taking arbitraries or local rates over the
basing groups, sometimes the plus sign being employed
instead of the word "plus."

While the greater part of the New England States
is shown as taking the Boston adjustment of freight
rates, the Boston rates apply in general only from main-
line points on the more important systems. Small lines,
and branch lines as well, are adjusted on a differential
basis, which may be found by adding fixed amounts to
the base-point rates, or by the addition of the full local
rate.

The main-line stations, however, are accorded the
Boston rates, which are blanketed over the entire terri-
tory and applied to all points in percentage groups.
The rates from Boston (which apply from approximately
all main-line points in New England and a considerable
number of points in the Dominion of Canada) to per-
centage points taking 71 per cent of the Chicago rates
and higher are identical with the New York rates to the
same destinations.

It is common to blanket rates to or from intermediate
points, but it is rare to accord the base rates to wide
areas *beyond* the basing point, as done in this instance.
Blanket rates are usually applied to the intermediate
points and not to points beyond. For this reason, the
territory covered by the Boston rate group is particu-
larly favored by the application of the New York rates.

The aim of this procedure is apparent, in that manu-
facturers and merchants located all over New England
are placed on a parity with manufacturers and mer-
chants nearer the points of consumption and are enabled
thus to market their products at transportation costs
not greatly in excess of those applying from many large
manufacturing points within Trunk Line Territory.

Indeed, it may be said that at times, especially during

the early days of the development of this rate structure, the carriers serving the seaboard cities in the New England States provided rates to western destinations that were less than those currently maintained from New York, Philadelphia, and other seaboard cities in Trunk Line Territory. Particularly was this true of the Canadian lines operating by way of Portland and through the Dominion of Canada to western United States points (through the Niagara and the Detroit and St. Clair River frontiers). With the fixing of agreed differentials for the respective routes, this feature has been overcome, and now standard all-rail rates from Boston are not lower than the standard all-rail rates from New York; neither are the differential rates of the same kind from Boston less than from New York, although in both instances, the differential rates are less than the standard all-rail rates.

Table 19 has been prepared with a view of setting forth, in a very explicit manner, the general basis for the construction of rates from eastern base points other than New York. The various items comprising the table will now be taken up in order and an illustration given of the application of each.

TABLE 19

I. Basis of Class Rates from the Eastern Basing Groups Specified to Central Freight Association Territory

ITEM	FROM EASTERN BASE POINTS	TO PERCENTAGE GROUPS	IN CENTS PER 100 POUNDS								REMARKS
			Classes								
			1	2	R25	3	R26	4	5	6	
1	Boston, Mass.	Buffalo, N. Y. Erie, Pa. Pitts- burgh, Pa. 60 67 70	5	5		2½		2½	2½	2	Higher than rates from New York to the same points
			5	4	3.4	3	2.4	3	2.5	2	
			3.1	2.7	2.3	2.1	1.6	1.4	1.3	1.1	
			0.7	0.7	0.6	0.5	0.4	0.3	0.3	0.3	
		71-120									New York rates

TABLE 19—CONTINUED

I. BASIS OF CLASS RATES FROM THE EASTERN BASING GROUPS SPECIFIED TO CENTRAL FREIGHT ASSOCIATION TERRITORY

ITEM	FROM EASTERN BASE POINTS	TO PERCENTAGE GROUPS	In Cents per 100 Pounds — Classes								REMARKS
			1	2	R25	3	R26	4	5	6	
2	Albany, N. Y.	60	6	6	5.1	2	1.6	2	2	2	Less than the rates from New York to the same points
		67	11.5	10.8	9.1	5.7	4.6	4.6	4.2	3.8	
		70	6	6	5.1	2	1.6	2	2	2	
		71	14.6	13.5	11.4	7.8	6.2	6	5.5	4.9	
		72	15.4	13.7	11.6	8.3	6.6	6.4	5.8	5.1	
		73	15.8	13.7	11.6	8.8	7.0	6.8	6.1	5.3	
		74	15.8	13.7	11.6	9.4	7.5	7.1	6.3	5.3	
		75	15.8	13.7	11.6	9.9	7.9	7.4	6.3	5.3	
		76	15.8	13.7	11.6	10.4	8.3	7.4	6.3	5.3	
		77	15.8	13.7	11.6	10.5	8.4	7.4	6.3	5.3	
		78-120									New York rates to the same points less 20% of New York-Chicago rates
2½	New Berlin, N. Y.	60 67									Same rates as from New York
		70	...	...	...	.0	...	.1	...	...	Lower than rates from New York
		71	.4	.2	.0	.3	.0	.4	.0	.2	
		72	1.2	.9	.5	.8	.4	.8	.1	.4	
		73	2	1.6	1.1	1.3	.8	1.2	.4	.7	
		74	2.8	2.2	1.6	1.9	1.3	1.5	.7	1	
		75	3.6	2.9	2.2	2.4	1.7	1.9	1	1.2	
		76	4.4	3.6	2.8	2.9	2.1	2.3	1.3	1.5	
		77	5.2	4.3	3.4	3.4	2.5	2.6	1.7	1.8	
		78-120	6	5	4	4	3	3	2	2	
3	Ogdensburg, N. Y.	60	5	4	3.4	3	2.4	3	2.5	2	Higher than New York rates to the same points
		67	0.7	1.5	1.3	1.8	1.4	1	0.5	0.9	
		70	...	...	...	0.2	...	0.2	...	.01	
		71	2.4	1.2	1	0.3	0.2	0.4	0.8	0.2	
		72	3.2	1.9	1.6	0.8	0.6	0.8	1.1	0.4	
		73	4	2.6	2.2	1.3	1.0	1.2	1.4	0.7	Lower than New York rates to the same points
		74	4.8	3.2	2.7	1.9	1.3	1.5	1.7	1	
		75	5.6	3.9	3.3	2.4	1.9	1.9	2.0	1.2	
		76	6.4	4.6	3.9	2.9	2.3	2.3	2.3	1.5	
		77	7.2	5.3	4.5	3.4	2.7	2.6	2.7	1.8	
		78	8	6	5.1	4	3.2	3	3	2	
		79	8.8	6.7	5.7	4.5	3.6	3.4	3.3	2.3	
		80	9.5	7.3	6.2	5	4	3.7	3.6	2.5	
		81	10	8	6.8	5.5	4.4	4	3.9	2.8	
		82-120	10	8	6.8	6	4.8	4	4	3	
4	Rochester, N. Y. Syracuse, N. Y.	60	9.5	8.4	7.2	7.3	5.6	5.3	4.2	3.2	Lower than New York rates to the same points
		67	15	13.2	11.2	11	8.8	7.9	6.4	5	
		70	10.5	9.1	7.7	7	5.6	4.9	4.2	3.5	
		71	18.1	15.9	13.5	13.1	10.4	9.3	7.7	6.1	
		72-120									70% of New York rates

TABLE 19—Continued

I. Basis of Class Rates from the Eastern Basing Groups Specified to Central Freight Association Territory

Item	From Eastern Base Points	To Percentage Groups	In Cents per 100 Pounds						Remarks
			Classes						
			1	2 R25①	3 R26①	4	5	6	
5	Philadelphia, Pa.	60-120	6	6	2	2	2	2	Lower than New York rates to the same points
6	Baltimore, Md.	69-120	8	8	3	3	3	3	Lower than New York rates to the same points
7	Scranton, Pa.	60	48	41.5	34	23	19.5	16	Same rates as from Philadelphia
		67	48.5	42.5	34	27	19.5	16	Arbitrary rates
		70	57	49.5	40	27.5	23	19	
		71-120							80% of rates New York to the same points
8	Williamsport, Pa.	60	46	39.5	33	22	18.5	15	Same rates as from Baltimore
		67	46.5	41	33	22	18.5	15.5	Arbitrary rates
		70	55	47.5	39	23	19.5	16.5	
		71-120							77% of rates New York to the same points
9	Cumberland, Md.	60②	46	39.5	33	22	18.5	15	Arbitrary rates
		67	46.5	41	33	22	18.5	15.5	
		70	③55	47.5	39	23	19.5	16.5	Via Wn. Md. Ry. Via B. & O. R. R. Arbitrary rates
		71-120							77% of rates New York to the same points

TABLE 19—Continued

I. Basis of Class Rates from the Eastern Basing Groups Specified to Central Freight Association Territory

Item	From Eastern Groups	To Percentage Groups	In Cents per 100 Pounds Classes						Remarks
			1	2	3	4	5	6	
10	Beling-ton, W. Va.④	60-120	Cumberland rates but not less than						
			55.5	48.5	37	26	22.5	18.5	
11	Rich-wood, W. Va.④	60-120	Cumberland rates but not less than						
			60.5	52.5	40	28	24.5	20	
12	Wash-ington, D. C.⑤	60-120	8	8	3	3	3	3	
			under New York rates but not less than						
			66.5	58	43	29.5	24.5	20	
		95-120	8	6	4	3	2	2	●
			under Baltimore rates						
		60-94	8	6	4	3	2	2	
			under Baltimore rates but not less than the rates shown below (minimum rates)						
		60 and 67	66.5	58	43	29.5	24.5	20	
		66	68	58.5	47	32	27.5	22	
		70-76	66.5	58	43	29.5	24.5	20	
13	Virginia Cities	78	66.5	58	44	30	25	20.5	
		79	66.5	58	44.5	30	25.5	20.5	
		80	66.5	58	45	30.5	26	21	
		81	66.5	58	45.5	31	26	21.5	
		82	66.5	58	46	31.5	26.5	21.5	
		83	66.5	58	46	31.5	27	22	
		84	67.5	58.5	46	31.5	27	22	
		85	67.5	58.5	46	31.5	27.5	22	
		86	67.5	58.5	46	31.5	27.5	22	
		87	67.5	58.5	46	31.5	27.5	22	
		88	67.5	58.5	46	31.5	27.5	22	
		89	67.5	58.5	46.5	31.5	27.5	22	
		90	67.5	58.5	47	32	27.5	22	
		92	67.5	58.5	48	32.5	28	22.5	
		93	67.5	59.5	49	33	28.5	23	
		94	68.5	60.5	49.5	33.5	29	23	

①For the construction of Rule 25 and Rule 26 rates between the various groups indicated see page 112.

②Except that to Pittsburgh and Wheeling the rates shown in note ③ apply.

③Except that to Parkersburg the rates shown below apply.

Classes.....	1	2	3	4	5	6
Rates......	43.5	36	28	19.5	17	13.5

④Except that to all points north of Butler, Pa., on B. & L. E. R. R.; all points on D. A. V. & P. R. R.; all points on J. W. & N. W. R. R.; all points northeast of Butler to Mt. Jewett, Pa., on B. & O. R. R.; all points east of Ashtabula, Ohio, on N. Y. C. & St. L. R. R.; all points east of Youngstown, Ohio, and Transfer, Pa., on Erie R. R.; and all points east of the line Ashtabula to Youngstown through Andover, Ohio, on L. S. & M. S. R. R., the following rates apply:

Classes.....	1	2	3	4	5	6
Rates......	66.5	58	43	29.5	24.5	20

⑤B. & O. R. R. name Baltimore rates from Washington, without minima, Minimim scale is published by C. & O. Ry.

Boston, Mass.—In item 1, Table 19, it will be observed
that the rates from Boston, Mass., and points taking
Boston rates to points east of, but not including, the 71
per cent group are made certain figures or differentials
(as they are designated) over the rates from New York
to the same destinations. These figures express (as far
as is possible by means of figures) the relative advantage
of the locations of New York and Boston on shipments
destined to these points. The addition of these figures
or differentials to the rates from New York will give the
rates that must be maintained by the initial lines in con-
structing their freight publications which name rates
from Boston, Mass., and other points taking Boston
rates. To destinations located west of the points referred
to above or to points in percentage groups 71 to 120
inclusive, the rates are the same as apply from New
York to the same destinations. While to points located
east of the 71 per cent group New York has lower rates,
to the territory west thereof the Boston group has the
benefit of the same rates as apply from New York.

Albany, N. Y.—The rates from Albany and points tak-
ing Albany rates to percentage groups lying east of, and
including, the 77 per cent group are fixed with relation
to the rates from New York to the same destinations, but
the differentials are *under* the rates from New York,
whereas it was learned from the preceding paragraph
that the rates from Boston, Mass., to points east of, but
not including, the 71 per cent group are certain amounts
over the rates from New York. Albany and many of the
points of origin taking Albany rates are located close to
the head of, or are reached by, the Erie Canal. These
points are very much less important from a traffic stand-
point than New York and Boston but are given rates
which are lower than those in effect from either New
York or Boston to the same destinations and which

enable this group of points to compete on equitable terms with the two larger cities named. This indicates, in some degree, the advantage of the Erie Canal as a medium for compelling lower rates.

To percentage territories lying west of the 77 per cent group, the percentage principle is applied in con- structing the rates from Albany, it being first necessary to construct the rates from New York to the desired percentage group. Assuming that it is desired to construct rates to the 110 per cent group, we would obtain as the rates from New York to the 110 per cent group the following figures:

Classes	1	2	3	4	5	6
Rates	99	87	66	46	42.5	33

from which is to be deducted 20 per cent of the New York-Chicago rate, as provided in Table 19, which is as follows:

Classes	1	2	3	4	5	6
Rates	18	16	12	8.5	7	6

This results in a scale of rates as follows:

Classes	1	2	3	4	5	6
Rates	81	71	54	37.5	35.5	27

Representative rates from Albany to other percentage groups are as follows:

Classes	1	2	3	4	5	6
71% group rates.	48	41.5	34	23	19.5	16
80% group rates.	54	47	36	26.5	22	18
87% group rates.	63	53	41.5	31.5	24.5	20
117% group rates.	87.5	76.5	58	44	35	29

New Berlin, N. Y.—The location of this group will indicate that to short-haul points the distance does not materially differ from that from the New York group. To percentage points including the 60 to the 67 per

cent groups, the rates are made the same as from
New York.

To the other percentage groups, in order to avoid
abrupt increases or decreases in rates, certain differ-
ential or arbitrary scales have been established, under
which the rates are constructed from New Berlin and
points taking the same rates. It will be observed that
as the distance becomes greater and greater, the
arbitrary scale increases. That is, while only four-
tenths of one cent is subtracted from the New York
rate in making the first-class rate to the 71 per cent
group, the deduction to the 78 per cent group is 6 cents.

Representative rates from this group to western
percentage groups are as follows:

Classes	1	2	3	4	5	6
71% group rates..	64	56.5	43	30	26	21.5
80% group rates..	66	58	44	30.5	27	22
97% group rates..	81.5	71.5	54	37.5	33	27

In connection with this adjustment, it must be noted
that it is not observed in all cases by all lines. For
example, the New York, Ontario and Western Railway in
establishing rates from New Berlin and points taking the
same rates employs the New York rates with certain
exceptions and restrictions.

Ogdensburg, N. Y.—In this case, we have an adjust-
ment of rates where, to the short-haul points, the rates
are made by the *addition* of arbitraries to the New York
rates, and to the long-haul points, by the *deduction* of
arbitrary scales from the New York rates.

Representative rates to some of the groups obtained
under this scale are as follows:

Classes	1	2	3	4	5	6
78% group rates.	62	55.5	43	30	25	21.5
85% group rates..	66.5	59	45	31.5	26.5	22.5
97% group rates..	77.5	68.5	52	36.5	31	26
117% group rates.	95.5	84.5	64	45	38	32

Rochester-Syracuse, N. Y., and Points Taking the Same Rates.—In this case, as was the case with respect to the construction of rates from Albany to short-haul points, we have an arbitrary adjustment (providing for the deduction of certain arbitrary scales from the New York rates) and to other points, the application of a fixed percentage. The application of the percentage principle in this instance is quite simple, and no illustration is required. Representative rates obtained under the existing adjustment are indicated below:

Classes	1	2	3	4	5	6
71% group rates.	43.5	37.5	28	19.5	17	14.5
83% group rates.	52	46	35	24.5	21	17.5
100% group rates.	63	55.5	42	29.5	25	21
116% group rates.	73	46	48.5	34.5	29.5	24.5

Philadelphia, Pa., Baltimore, Md., and Points Taking the Same Rates.—The adjustment of rates from both Philadelphia and Baltimore is quite simple, owing to the fixed differentials that have been conceded these ports and related points under the existing rates established from New York. The purpose of the differentials is to equalize the competition of the stronger port of New York, and to enable Philadelphia and Baltimore to attract a portion of the vast tonnage which moves through the Atlantic Ports to and from foreign countries. It is not unlikely, at least it has been so alleged, that were this not the case, New York by reason of superior advantages, more frequent sailings, etc., would attract a greater portion of this traffic in a short time. While this may be open to question, it is the principle under which these differentials have been established.

It will be noted that these differentials do not fluctuate as do the arbitrary scales mentioned in the preceding adjustment. That is, the first-class rate from Phila-

delphia to the 60 per cent group is 6 cents under the
New York rate, as is the rate to the 120 per cent group.

In passing, it may be said that in the application of
these differentials, where commodity rates are estab-
lished which are the same as the class rates, the
corresponding class differential is deducted from the
New York rate, and that where the commodity rate
is not the same as the class rate, the rate established
for the next higher class will be employed. In other
words, if a commodity rate were established on the
basis of 20 cents, New York to Chicago (this being
less than the sixth-class rate), it would involve the
deduction of the sixth-class differential in establishing
the rate from either Philadelphia or Baltimore, as this
is the next higher class rate.

Scranton, Pa., and Points Taking the Same Rates.—
In connection with this adjustment, there is one feature
which has not as yet been introduced, and that is the
establishment of arbitrary rates in serving some of the
percentage groups. For example, we find that to the
60 per cent group, rates are made the same as from
Philadelphia, and that to the 67 and 70 per cent groups,
certain figures are named which are called arbitrary
rates, which rates are made without reference to the
existing adjustment in the construction of rates in
general from this point.

It is well, in this connection, to draw a distinction
as to the terms "arbitrary" and "arbitrary rates."
The former is usually a sum that is added to, or sub-
tracted from, the rate to a base point to construct a
through rate between two given points, while an
arbitrary rate is one that is constructed independently
or arbitrarily by one or more carriers to apply between
given points without relation or reference to other
rates that may be established between those points and
points in related territory. The use of arbitrary rates

in cases like this is due to peculiar traffic conditions which cause the carriers to depart from the usual basis.

To points in percentage groups 71 to 120, inclusive, the Scranton rates are made 80 per cent of the existing New York rate to the same group. Rates to selected groups are as follows:

Classes	1	2	3	4	5	6
71% group rates.	51	45	34	24	20.5	17
78% group rates.	56	49	37.5	26.5	22.5	19
90% group rates.	65	57	43	30.5	26	21.5
110% group rates.	79	69.5	53	37	31.5	26.5

Williamsport, Pa., and Points Taking the Same Rates.—As shown in item 8 of Table 19, the rate from Williamsport, Pa., to the 60 per cent group, is the same as from Baltimore, but to both the 67 and 70 per cent groups, rates are arbitrarily established on a 40.7-cent and a 44.7-cent scale, respectively. From Williamsport to percentage groups 71 to 120, inclusive, the rates are made 77 per cent of the rates from New York to the same destinations, from which it will be seen that from both the Scranton group and the Williamsport group to the percentage groups above named, the rates are the result of the application of a double percentage system. The rates from New York to the percentage groups are a percentage of the New York-Chicago rates; the rates from Scranton to these percentage groups are a percentage of the New York rates to the same destinations.

Representative rates obtained under the application of this adjustment yield the following figures to the percentage groups designated below:

Classes	1	2	3	4	5	6
71% group rates.	49.5	43	33	23	19.5	16.5
83% group rates.	57.5	50.5	38.5	27	23	19.5
87% group rates.	60.5	52.5	40	28	24.5	20
93% group rates.	64.5	56.5	43	30	26	21.5
120% group rates.	83	73	55.5	39	33	27.5

Cumberland, Md., and Points Taking the Same Rates.—This adjustment does not differ materially from that employed in establishing rates from Williamsport, Pa., with the exception that the arbitrary scales agreed upon by the interested carriers vary, in some instances, in so far as the rates to the 60, 67, and 70 per cent groups are concerned. The rates to points in the remainder of percentage territory are the same as those established from Williamsport, which are made on the basis of 77 per cent of the New York rates to the same point of destination.

Belington, W. Va., Richwood, W. Va., and Points Taking the Same Rates.—The adjustment employed in establishing rates from Cumberland is also applied in establishing class rates from Richwood and Belington, W. Va., and points taking the same rates, with the proviso that the rates so established must not yield from Belington less than the following scale:

Classes	1	2	3	4	5	6
Rates	55.5	48.5	37	26	22.5	18.5

and from Richwood less than the following scale:

Classes	1	2	3	4	5	6
Rates	60.5	52.5	40	28	24.5	20

These rates are to be observed as minimum rates to points in percentage territory on traffic originating at these points, or points taking the same rates, or in establishing rates from points basing thereon. Of course, as the distance becomes greater or as the rate progresses through the territory, the rates obtained under the application of the percentage principle, in all cases, exceed the minimum scales. It is necessary to observe them only in so far as the short-haul traffic is concerned.

Washington, D. C.—It may be stated, as a general proposition, that the rates or basis for rates to be

applied in connection with traffic originating at the national capital and related points is the same as employed from Baltimore, Md., to the same destinations, with the exception that minimum rates based on a first-class 57.7-cent scale are to be observed. This minimum, in general however, affects only the territory lying east of, but not including, the 80 per cent group.[1]

Virginia Cities.—A great deal of traffic, which finds a ready market in the northern and western cities in Official Classification Territory, originates south of the Virginia-North Carolina state line in the Piedmont plateau. The lines serving these Virginia Cities, which are virtually the gateways to the south through which traffic, moves to final destinations, are in competition with other lines and connections operating through Ohio River Crossings. Consequently, we find that the existing basis for rates (particularly as concerns the more distant percentage groups) is on a very low scale involving the application of a double differential to New York rates in determining the through rates from Virginia Cities to the same groups of destinations. For example, were it desired to construct rates to the 110 per cent group, the Baltimore differentials are first deducted, obtaining the following scale:

Classes	1	2	3	4	5	6
Rates	91	79	63	43	36.5	30

From this scale are then deducted the Virginia Cities' differentials under Baltimore, shown in item 13, of Table 19, obtaining the following scale:

Classes	1	2	3	4	5	6
Rates	83	73	50	40	34.5	28

To points east of, and including, the 94 per cent group,

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[1] The B. & O. R. R.. however. applies the Baltimore rates from Washington without observance of minima rates. The minimum scale is published by the C. & O. Ry.

the same procedure is employed, observing the minima rates which are established to such groups and which are specifically indicated in item 13, Table 19.

As previously intimated, this is, of course, a competitive adjustment, and enables the lines serving such cities to attract to this route considerable tonnage which would, in all probability, move by way of western river crossings or gateways, were some relief not accorded.

Map 9 shows stations Lexington to Winchester, Va., Basic City, Va., to Hagerstown, Md., and Richmond to Alexandria, Va., in the Lexington group. However, on shipments routed northward from Washington, Alexandria, Hagerstown, and Winchester via the trunk lines to percentage territory in the United States, the Baltimore rates apply, but when shipments are routed southward via the Chesapeake & Ohio Railway destined to percentage territory, Washington, Alexandria, Hagerstown, and Winchester are all included in the Lexington group and the Baltimore rates apply subject to the Virginia Cities-Pittsburgh scale as minimum rates. The Lexington rates are the same as the Baltimore rates except where the Virginia Cities-Pittsburgh scale is slightly higher than the Baltimore rates. The Virginia Cities group is also shown on Map 9. Main lines of the Chesapeake & Ohio Railway from Norfolk, Berkley, and Fort Monroe, Va., to Malden, W. Va., via both Staunton and Lynchburg, are included in the Virginia Cities group, also the Norfolk and Western Railway from Norfolk to Roanoke and Salem, Va., inclusive. From all stations on these main lines, the rates from the Virginia Cities are applied.

In connection with the rates to Virginia Cities, it is interesting to note that from stations on the Virginian Railway, lying immediately south of the main line of the Norfolk and Western Railway, the rates to Virginia

Cities are applied only from Roanoke and Salem on the west, and Suffolk on the east thereof. Stations on the Virginian Railway west of Suffolk and east of Roanoke take arbitraries over the rates to Virginia Cities, governed by the Official Classification and exceptions. Rates from points south of the Virginian Railway to percentage territory shown on Map 3 are made on combination rates through Virginia Gateways or the Ohio River Crossings and are, consequently, materially higher than the remarkably low rates from the Virginia Cities. Points on the Virginian Railway, because of intermediate location, are perhaps justly accorded rates, neither so low as the rates to Virginia Cities nor so high as the rates to points lying farther south.

Map 9 also shows certain points in lines lying between the Lexington groups and between the main lines of the westbound routes to Virginia Cities as taking arbitraries over the Virginia Cities.

The stations lying between the two Lexington groups take either arbitraries or local rates over the Baltimore rates on the north, over the Lexington rates on the east and west, or over the rates from Virginia Cities on the south. The shipments from these interior points are usually made via the route over which the cheapest combination may be obtained. For example, from Manassas, Va., freight may be shipped (1) westward through Front Royal at the Lexington rate, plus the local rates from Manassas to Front Royal, (2) northward through Washington, D. C., at the Baltimore rate, plus the local rates from Manassas to Washington, or (3) southward through Orange, Va., at the rates from Virginia Cities plus the locals from Manassas to Orange. The Manassas freight is likely to move over the route by which the best service is offered or the cheapest combination applies. This is true of all other stations within this group shown on Map 9. Traffic from stations

lying near the Baltimore group would naturally flow
through the Baltimore group, while the traffic from
stations near the Lexington and Virginia Cities groups
would flow through those groups. There are also
certain lines between the Norfolk and Western Railway
and the northern route of the Chesapeake & Ohio Rail-
way that take arbitraries over the rates to Virginia
Cities. West Point, Va., on the Southern Railway, is
shown as taking the rates to and from Virginia Cities,
while points between West Point and Richmond take arbi-
traries over the rates from Virginia Cities. In studying
the Virginia Cities and Lexington groups on Map 9,
it should be borne in mind that the rates from Rich-
mond, Doswell, Staunton, Basic City, and Lexington,
when shipments are routed northward, are the Lexing-
ton rates, but when shipments are routed westward via
the Chesapeake & Ohio Railway from these same points
to Central Freight Association Territory, the rates are
the rates from Virginia Cities. This means that the
fourth section of the Act to Regulate Commerce is not
violated by the direct routes in this instance. However,
it has been shown that the rates via the Virginian Rail-
way do violate the fourth section, in that the rates to
Virginia Cities apply from Norfolk, Suffolk, etc., on
the east over the Virginian Railway, while the rates
from stations between Suffolk and Roanoke are arbi-
traries over the rates to Virginia Cities. There are
also many departures from fourth section of the Act
to Regulate Commerce as concerns rates via circuitous
routes from points in Virginia to percentage territory
shown on Map 3. It should be remembered, however,
that competitive conditions often entirely justify viola-
tions of the fourth section, and the Interstate Com-
merce Commission has repeatedly recognized this fact.

The fourth section of the Act to Regulate Commerce
is popularly known as the long-and-short-haul clause of

the Act. This section provides that it shall be unlaw-
ful for any common carrier, subject to the provisions
of this Act, to charge or receive any greater compensa-
tion in the aggregate for the transportation of pas-
sengers or of like kind of property for a shorter
than for a longer distance over the same line or route
in the same direction, the shorter being included within
the longer distance, or to charge any greater compensa-
tion as a through route than the aggregate of the
intermediate rate.

How class rates are based from the thirteen groups
in Trunk Line and New England territories to per-
centage territory has now been set forth. There are
numerous small branch lines within a number of the
eastern groups that take arbitraries over the group
rates. In such cases, the first letter of the group name
is usually used with a plus sign following it to indicate
that the group rate, plus either arbitraries or local
rates, applies. In some cases the routing of freight
affects the rates. For example, in the New York group,
northwest of New York, the line of the Ulster & Dela-
ware Railroad is shown as taking either "New York
plus" or "Albany plus." New York rates plus arbi-
traries apply when routed via Kingston, N. Y., and the
Albany rates plus arbitraries apply when routed by
Oneonta, N. Y.

Not infrequently it happens that certain deliveries at
one of the base points may require the addition of
arbitraries in determining the through rate. For
example, while certain stations on the South Brooklyn
Railway are given the benefit of the flat New York rates
on traffic to percentage territory, other points located
thereon are constructed on an arbitrary basis by the
addition of the following figures to the New York rates:

Classes	1	2	3	4	5	6
Rates	5	4	3	2	2	2

To set forth clearly the application of these rates as to whether or not arbitraries are to be employed, the carriers either individually or through their agents issue what are known as bases for rates, or billing instructions. These issues show the various points in the territory on, and reached via, their lines, and the base rates to apply in connection therewith or, where rates are established on an arbitrary adjustment, the arbitraries that are to be added to the indicated base points. While the maps contained in the *Atlas of Railway Traffic Maps* are compiled from reliable and authentic sources, in the event of differences between the maps and publications of the carriers as to a difference in group location, the issue of the carrier, published and filed with the Interstate Commerce Commission must be observed. When such differences occur, the matter should be taken up with the interested line in an endeavor to ascertain if some error has not been made in publishing the adjustment.

CHAPTER XII

Adjustment of Rates From Other Eastern Base Points

(b) Commodity Rates

As concerns the establishment of commodity rates from eastern base points, other than New York, the adjustment, in general, adhers closely to that employed in the establishment of class rates. Before taking up the details to be employed in connection therewith, however, it is well to consider several of the more important rules that are to be applied in connection with the bases.

(1) When a rate per ton is established on any commodity from New York to Chicago, either locally or as a basis for rates to other western points, and it is provided in connection therewith that a corresponding rate shall apply from other eastern cities, the rate per ton is in all cases used as the basis for computing the rate upon such commodity and not the equivalent rate in cents per hundred pounds.

For example, if we assume that a commodity rate has been established from New York to Chicago on the basis of $3.20 per ton and its application is extended to apply from other eastern cities, the rate from Albany would be computed on the basis of 80 per cent of $3.20, which would make the rate from Albany to Chicago $2.56 per ton.

(2) When a rate per hundred pounds, or per ton is established on any commodity from an interior trunk-line base point (other than points taking Philadelphia or Baltimore rates) to Chicago, and it is provided in connection therewith that corresponding rates shall apply to other western points, such rates are determined by computing the rates per hundred pounds, or per ton on the established percentages shown on Map 3, *Atlas of Railway Traffic Maps*, of the rates from such interior points to Chicago.

For example, assuming a commodity rate has been established from Albany, N. Y., to western points on the basis of 16 cents per hundred pounds, Albany to Chicago, the rates to East St. Louis would be computed on the basis of 117 per cent of 16 cents which would make the rate to East St. Louis 18.7 cents per hundred pounds.

(3) When a rate per hundred pounds, or per ton is established on any commodity from an interior trunk-line point taking Philadelphia or Baltimore rates to Chicago and it is provided in connection therewith that corresponding rates shall apply to other western points, such rates are computed on the basis of the equivalent New York rate per hundred pounds, or per ton.

For example, assuming a commodity rate has been established from Lancaster, Pa. (a Philadelphia rate point), to western points on the basis of 22 cents per hundred pounds, Lancaster to Chicago, to obtain the East St. Louis rate first add 2 cents per hundred pounds (the Philadelphia differential), thus making the equivalent New York rate 24 cents per hundred pounds. Second, determine 117 per cent of 24 cents, which would make the rate, New York to East St. Louis, 28.1 cents per hundred pounds. Then deduct the Philadelphia arbitrary of 2 cents per hundred pounds, and the result is 26.1 cents per hundred pounds, which is the rate from Lancaster to East St. Louis, Ill., on a commodity carry-

ing a rate, Lancaster, Pa., to Chicago, Ill., of 22 cents per hundred pounds.

In the following table is set forth the basis used by the Eastern Trunk Lines for the construction of rates from eastern base points, other than New York, to various western percentage groups including the so-called "Western Termini of the eastern trunk lines."

TABLE 20

BASIS FOR COMMODITY RATES FROM GROUPS IN TRUNK LINE AND
NEW ENGLAND TERRITORIES TO CENTRAL FREIGHT
ASSOCIATION TERRITORY

ITEM	FROM EASTERN GROUPS	TO PERCENTAGE GROUPS	RATE BASIS FOR COMMODITIES
1	Boston, Mass.	Trunk Lines' Western Termini and 60% points	When commodity rates from New York are the same as standard class rates from the same point, rates upon the same commodities from Boston, Mass., and New England points taking Boston rates are made by adding to the published commodity rates from New York the same amount as the figure of the difference between the standard class rate from New York and the corresponding class rate from Boston to the same destinations. (Table 19, item 1.) When commodity rates from New York are *not* the same as standard class rates from that point, rates upon the same commodities from Boston, Mass., and New England points taking Boston rates are made by adding to the published commodity rates from New York the same amount as the figure of the difference between the class rate next higher than the commodity rate applicable from New York and the corresponding class rate from Boston to the same destinations. (Table 19, item 1.)
		67-71	Same rates as from New York to 71% points but not less than from Boston to 60% points.
		72-120	New York rates but not less than from Boston to 60% group.
2	Albany, N. Y.	60-120	80% of rates from New York to Chicago and other 100% points. To other points rates are scaled on the basis of the established percentage of the rate from Albany to Chicago, except that to the nearer percentage groups certain minima are observed.

TABLE 20—Continued

Basis for Commodity Rates from Groups in Trunk Line and New England Territories to Central Freight Association Territory

ITEM	FROM EASTERN GROUPS	To PERCENTAGE GROUPS	RATE BASIS FOR COMMODITIES
3	New Berlin, N. Y.	60-77	Varying amounts under the rates from New York, with no uniformity for one commodity as compared with all the others. Rates from D. L. & W. R. R. points taking New Berlin group rates are generally higher than rates on same commodities via N. Y. O. & W. Ry., i. e., New York rates, net, are used to a greater extent by the D. L. & W. R. R., and, when less than New York basis is published by that company, the arbitraries are smaller than the amounts below New York rates published by the N. Y. O. & W. Ry.
		100	Less than rates from New York [1] [2] Classes .... 1 2 3 4 5 6 Differentials ... 6 5 4 3 2 2
		78-120 (except 100)	Percentages shown in groups on Map 3 of New Berlin-Chicago rates N. Y. O. & W. Ry.—2 cents per 100 pounds under rates on same commodities from New York. There are instances in which rates are 3 cents under New York, namely, gum, pontianic, and licorice root. D. L. & W. R. R.—For more than half the number of commodities which are given a general application of rates to western points. the arbitrary is 2 cents. For the remaining commodities, the arbitrary is 1 cent per 100 pounds.
4	Malone-Ogdensburg, N. Y.	60 67-77 100 78-120 (except 100)	No fixed basis for all commodities. Rates for each commodity are made with some relationship to rates from New York, but the relationship is not uniform. For example: 1. On Starch from Malone, the rates are 3 cents under New York rates, with rate to 82% group as minimum to percentage groups east, except to 60% group, which is lower. 2. On scrap iron and scrap steel from Ogdensburg, rates are on the same basis. 3. On old car wheels and axles from Ogdensburg, rates are 1 cent under New York rates, with rate to 78% group as minimum to percentage groups east to, and including 74% group. To each of the remaining groups east, a different rate is announced, with no apparent relationship to New York rates. 4. On clay and talc from certain points in the

TABLE 20—Continued

BASIS FOR COMMODITY RATES FROM GROUPS IN TRUNK LINE AND
NEW ENGLAND TERRITORIES TO CENTRAL FREIGHT
ASSOCIATION TERRITORY

ITEM	FROM EASTERN GROUPS	TO PERCENTAGE GROUPS	RATE BASIS FOR COMMODITIES
4	Malone-Ogdensburg, N. Y.	60 67-77 100 78-120 (except 100)	Ogdensburg group, rates are 1 cent under New York rates, with rate to 80% group (on basis of 80% of rate from New York to Chicago minus 1 cent) as minimum to all percentage groups east. 5. On wet wood pulp from Malone and Ogdensburg, rates are 73% of New York rates, with rate of 81% group (on basis of 73% of rate from New York to that group) as minimum to all percentage groups east. 6. On ferro-manganese from Ogdensburg, rate to 100% group is 3 cents under New York rate, and rates to all groups east are scaled on the percentage applicable thereto, furnishing one of the very few instances in which the percentage system is consistently applied westbound.
5	Rochester-Syracuse. N. Y.	60-120	70% of rates from New York to Chicago and other 100% points. To other points rates are scaled on the established percentage basis of the rate from Syracuse and Rochester to Chicago.
6	Philadelphia-Baltimore	60-120	Following differentials less than from New York to same groups[3] Classes .... 1 2 3 4 5 6 Differentials ..... 6 6 2 2 2 2 Differentials 8 8 3 3 3 3
7	Scranton, Pa.	60	Same rates as from Philadelphia[4]
		67-120	80% of rates from New York to Chicago and other 100% points. To other points rates are scaled on the established percentage basis of the rate from Scranton to Chicago but not less than from Philadelphia to 60% group. In many instances minima rates are observed to groups 67% to and beyond 71%.
8	Williamsport, Pa.	60	Same rates as from Baltimore
		67-120	77% of rates from New York to Chicago and 100% points. To other points rates are scaled on the established percentage basis of the rate from Williamsport to Chicago but not less than from Baltimore to 60% group. In many instances minima rates are observed to groups 67% to and beyond 71%.

TABLE 20—Continued

BASIS FOR COMMODITY RATES FROM GROUPS IN TRUNK LINE AND
NEW ENGLAND TERRITORIES TO CENTRAL FREIGHT
ASSOCIATION TERRITORY

ITEM	FROM EASTERN GROUPS	TO PERCENTAGE GROUPS	RATE BASIS FOR COMMODITIES
	Cumberland, Md.	60-120	77% of rates from New York to Chicago and 100% points. To other points rates are scaled on the established percentage basis of the rates from Cumberland to Chicago but not less than from Baltimore to 60% group when routed via Pennsylvania Railroad.
10	Beling-ton, W. Va.-Rich-wood, W. Va.	60-120	In general on Cumberland basis subject to various minima, but a number of exceptions are applied
11	Lexing-ton, Va.	60-120	General commodity rates are on the same basis as Baltimore rates but not less than the commodity rates from the Virginia Cities to Pittsburgh[5].
12	Virginia Cities	60-120	Baltimore commodity rates subject to varying minima[2]

[1]When a commodity rate from New York to any group is the same as a
standard class rate, the differential under or over the New York rate for
the class rate is applied to the commodity rate; when a commodity rate is
not the same, the differential for the next higher class is applied.
[2]In connection with westbound commodity rates upon a lower basis than
that of the sixth class (i. e., 26.3 cents per 100 pounds, New York to Chi-
cago), the sixth-class differential of 2 cents is usually applied.
The differential for rates per ton, net or gross, is 20 times the differential
per 100 pounds.
[3]The same commodity rates are applied on traffic from New York, Phila-
delphia, Baltimore, and points taking same rates to Buffalo and points
taking Buffalo rates as are duly established upon like traffic from Philadel-
phia to Erie, Pa., except as may be otherwise provided.
[4]On some commodities (cordage, barb wire, etc.) Scranton is accorded
a lower rate than Philadelphia.
[5]Rates on various commodities from Lexington and the Virginia Cities
are not made according to the general basis for commodity rates.

A comparison of many of the items in this table
with those appearing in Table 19 will show that they
are on the same basis as shown in connection with
traffic under the class-rate adjustment.

In explanation of this basis for rate construction, we
will follow the plan outlined in connection with the
class-rate adjustment, and individual items comprising
the table will be taken up in their order.

Boston, Mass., and Points Taking the Same Rates.—
It will be noted that from item 1, in so far as the
Western Termini Points and points in the 60 per cent
group are concerned, that the same arbitraries that
were employed in the class-rate adjustment are to be
used in connection with the commodity rates, observing
the following rules for the application of these
arbitraries.

. (1) When commodity rates from New York are the
same as standard class rates from the same point, the
rates upon the same commodities from Boston, Mass.,
and points in New England Territory taking Boston
rates are made by adding to the published commodity
rates from New York the same amount as the figure
of the difference between the standard class rates from
New York and the corresponding class rate from Boston
to the same destination.

For example, when a commodity rate is shown from
New York to Chicago as $31\frac{1}{2}$ cents, this is the same as
the fifth-class rate.   Consequently, in establishing the
rates from Boston to points in the 60 per cent group, the
fifth-class differential indicating the existing difference
between the Boston rates and New York rates for this
group is added to the existing New York 60 per cent com-
modity rate, resulting in a rate from Boston of 21.4 cents
per hundred pounds.

(2) When a commodity rate from New York is not the
same as the standard class rate from that point, rates
upon the same commodity from Boston, Mass., and
points in New England taking Boston rates are made
by adding to the published commodity rates from New
York the same amount as the figure of the difference
between the class rate next higher than the commodity
rate applicable from New York and the corresponding
class rate from Boston to the same destination.

Through the remainder of the territory the New

York rates are applied from Boston without the addition
of arbitraries, preserving from groups numbered 67
per cent to 71 per cent, inclusive, rates established from
New York to the 71 per cent group as maxima.   To
illustrate, take the rate on new cotton bags, which
is shown to be on a basis of 47.3 cents per hundred
weight, New York to Chicago.   To 71 per cent group
points the rates from New York would be 33.6 cents per
hundred pounds.   The proviso is embodied in this item,
however, that this rate is not to be less than that which
is established from Boston to the 60 per cent group.
Where it becomes necessary to construct the rate from
Boston in order to determine whether or not the New
York rate to the 71 per cent group is above or below
the minimum required, the following procedure is
employed.   Assume a base rate of 47.3 cents per hundred
pounds, New York to Chicago.   As this is not the same as
any of the existing class rates, the differential applying
in connection with the next higher class rate is employed.
The addition of the third-class differential of 3 cents to
the 60 per cent group rate of 28.4 cents produces 31.4
cents as the rate from Boston to the 60 per cent group.
As the figures obtained in the application of item 1 to the
rates from New York to the 71 per cent group exceed
this amount, the minimum is of no importance in so far
as this particular commodity and group is concerned.

Bases for Rates from Interior Groups

Before going into detailed explanation of the bases
for rates to western points from the Albany, Rochester,
Syracuse, Scranton, Williamsport, Cumberland, and
Lexington groups, it should be stated (and the student
should make careful note of the fact) that the rates
are not made strictly on the percentage basis for each
percentage group of western destinations.   The system

is not rigidly followed, as is the case with eastbound rates, but, according to the peculiar necessities of each commodity, exceptions are made in the shape of *minimum* rates, which means the blanketing of many percentage groups with the rate to a certain farther-distant group.

The items in Table 20 are modeled on the announcement of the bases as made through the medium of circular letters of the associations of interested roads. For example, the bases for rates from Albany and Syracuse are given in Table 20 exactly as announced in Trunk Line Association Freight Committee Circular Letter No. A-424, dated January 23, 1903. But, when the offices of the same association announce the intention of the interested lines individually to issue tariffs that will establish a new or revised basis for rates on any commodity, such a basis is outlined as follows:

On bagging, burlap or gunny, in carloads,
  From eastern points to western points,
    On a basis of 26.3 cents per 100 pounds, New York to Chicago, except that the minimum rates to Pittsburgh, Pa., 60 per cent points and higher, will be on a basis of 21 cents per 100 pounds from New York.
    From New York, Philadelphia, Baltimore, and common points, to Buffalo and Niagara Frontier, 19 cents per 100 pounds.

In this example the rate to the 80 per cent group, namely, 21 cents, is applied as minimum to all points east.

The lesson to be learned from the above is that to procure the rate from Albany, Rochester, or any of the so-called "interior" Trunk Line groupings to western points for actual application to a shipment, the tariffs must be consulted, for, while the rate from Albany might be on the basis of 80 per cent of the rate from New York, the latter rate (particularly to any point in per-

centage groups east of the 81 per cent group), with few exceptions, would not be found made on the basis of the grouping shown in Map 3, *Atlas of Railway Traffic Maps*.

The percentage system, as used in the construction of westbound commodity rates, may be likened to the frame upon which the rate fabric is woven—the design perhaps may be a bit fantastic—yet the system is the foundation or pattern for all.

Albany, N. Y., and Points Taking the Same Rates.— For Albany, N. Y., the commodity-rate adjustment is somewhat different from that employed in the construction of class rates, in that it is first necessary to construct the rates from Albany to Chicago and then to scale it in accordance with the percentage assigned to the point of destination involved.

Under this adjustment, if we desire to construct the rate on clay (24 cents, New York to Chicago) the Albany-Chicago rate would first be constructed by taking 80 per cent of the New York rate, thus obtaining 19.2 cents per hundred pounds as the result. If then a rate were desired to some point in the 80 per cent group, 80 per cent of this amount would be taken resulting in 15.36 cents, or 15.5 cents, which is the same as the rate established for that group as shown in the following excerpt, which indicates rates on a few of the selected commodities to various western group points.

From Albany, N. Y. To Percentage Groups	Pig Lead	Brimstone	Clay	Woods of Value	Ammunition (Fixed)	Cordage	Oysters	New Cotton Bags	Pig Iron①	Old Car Axles①
60	12.5	..	13.5	..	20	17.5	..	..	$3.10	$3.20
70	12.5	..	15.5	..	20	20.5	..	..	3.20	3.40
80	14	..	15.5	..	20	23	..	..	3.60	3.60
90	16	..	17	..	22.5	26	..	..	4.10	4.20
100	17.5	..	19	..	25	29.5	..	..	4.60	4.80
110	19.5	..	21	..	27.5	32	..	..	5.10	5.30
120	21	.	23	..	30	35	..	..	5.50	5.80

Rates in cents per 100 lbs. unless otherwise specified.
①Per ton of 2,240 lbs.

It will be noted from the foregoing that rates are not shown on brimstone, woods of value, oysters, and new cotton bags. It is necessary only to call attention to the fact that the first two commodities are not common to this locality, and while quantities may be imported through North Atlantic ports, there is no movement through Albany as an originating point. Consequently, no rates are shown in the tariff. Likewise, as far as oysters are concerned, this point is sufficiently removed from the sea coast to preclude (except possibly in rare instances) the movement of this commodity.

New Berlin, N. Y., and Points Taking the Same Rates.—Not much may be said with respect to this adjustment in addition to the information given in the table itself. The particular attention of the reader is directed to the difference existing in the basis as applied by one line as contrasted with another, indicating an exception to the general rule that competing interests usually maintain the same scale of rates in order to insure the equality of charges in so far as the respective systems are concerned. The presumption in this instance is, however, that as far as the line maintaining the higher rates is concerned, the disadvantage of its route is such that it cannot meet the rates of the more direct systems.

Ogdensburg, N. Y., and Points Taking the Same Rates.—What has been said with respect to the adjustment of rates from New Berlin, N. Y., applies with equal force to the rates from Ogdensburg, to short-haul points, namely, 67 per cent to 77 per cent group points, inclusive. Rates from Ogdensburg must be established which are usually on the Boston basis but not higher than those that obtain from Ogdensburg to 78 per cent territory.

An interesting fact concerning this group is the

relatively small number of commodity rates that are
established therefrom as compared with the long list of
articles from all other eastern groups. Many of these
commodities are forwarded from this one group alone,
which fact is the probable explanation of the varied
bases for making rates for each commodity or com-
modity group (the group consisting of all allied articles,
such as clay, talc, algalite), being rated under a different
system.

*Rochester-Syracuse, N. Y., and Points Taking the
Same Rates.*—From Rochester and Syracuse, N. Y.,
and points taking the same rates to percentage points
shown on Map 3, general commodity rates are estab-
lished on the basis of 70 per cent of the rates from
New York to Chicago and other 100 per cent points.
To points other than those located in the 100 per cent
group, rates are scaled on the established percentage of
the rate from Rochester or Syracuse to Chicago, this
adjustment therefore involving the application of the
double percentage.

For example, taking the rate on cordage based on the
New York rate to ·Chicago of 36 cents, 70 per cent
yields 25.2 cents as the Rochester-Syracuse-Chicago rate;
117 per cent of this figure yields 29.485 cents, or 29.5
cents as the rate from Rochester-Syracuse to East St.
Louis, a 117 per cent point.

The following gives the rates on some representative
commodities from this group to selected western
destinations:

FROM SYRACUSE, N. Y. TO PERCENTAGE GROUPS	Pig Lead	Brimstone	Clay	Woods of Value	Ammunition (Fixed)	Cordage	Oysters	Cotton Bags	Pig Iron①	Old Car Axles①
67................	11	..	13.5	..	17.5	17	..	..	$2.70	$2.80
77................	12	..	13.5	..	17.5	19.5	..	..	3.10	3.20
87................	13.5	..	15	..	18.5	22	..	..	3.50	3.70
100................	15.5	..	17	..	21.5	25	..	..	4.00	4.20
107................	16.5	..	18	..	23	27	..	..	4.30	4.50
117................	18	..	20	..	25	29.5	..	..	4.70	4.90

Rates in cents per 100 lbs. unless otherwise specified.
①Per ton of 2,240 lbs.

There are some exceptions in the application of the
general basis, for example, the general basis is not
observed on bulk salt to Chicago, the rate of 10.5 cents
being established. This basis is not applied to other
percentage points and is defended on the ground of
water competition. It will be observed that both
Rochester and Syracuse are in close proximity to Lake
Ontario ports, and that it is possible for the interests
located thereat to avail themselves of water competition
in the event of excessive rail charges. This fact tends
to keep the basis of rates from this group on a low
plane, possibly somewhat lower than would obtain were
it not for this advantage possessed by these points.

Philadelphia, Pa., and Points Taking the Same Rates.—
As in class rates, commodity rates are established
from Philadelphia, in most instances, by employing
differentials which have been agreed upon by the inter-
ested carriers, and are lower than the rates currently
in effect from New York and New York rate points.
However, there are several commodities for which the
same rates are made applicable from Philadelphia as
are current from New York, namely, common-black blast-
ing powder, wire rods, wire—barb, binding, and fence—
hay bands, etc. The class differential of the class rate
which is the same as, or immediately higher than, the com-
modity rate is applied. For example, if a commodity
rate from New York to Chicago is 26.3 cents, which is
the same as the sixth-class rate, the rate from Phila-
delphia is 2 cents less or 24.3 cents. If the commodity
rate is not the same as the class rate, the differential
for the class rate next higher applies, that is, if a
rate of 27 cents were established from New York to
Chicago, this being slightly higher than the sixth-class
rate, the fifth-class differential of 2 cents is applied, or
stated another way, if a commodity rate of 59 cents
were established from New York to Chicago, notwith-

standing that the rates more nearly approximate the third-class rate, the second-class differential would be deducted.

Baltimore, Md., and Points Taking the Same Rates.— The exposition of the Philadelphia adjustment holds good with respect to the bases employed from Baltimore, with the exception that the differentials on the first class and the second class are 8 cents, and the lower classes 3 cents per one hundred pounds, in contrast with 6 cents and 2 cents from Philadelphia.

In the application of these differentials, it is necessary in all instances, to first construct the rate from New York to the desired percentage group, that is, the rate is not to be established from Philadelphia to Chicago, in the first instance and then scaled, but it is to be scaled from New York to the various percentage groups, and the differentials authorized deducted from the rates thus established.

Scranton, Pa., and Points Taking the Same Rates.— What was previously stated with regard to the establishment of rates from the Rochester-Syracuse group is true so far as the adjustment of rates from Scranton, Pa., is concerned, except that the base rate from Scranton to Chicago is established on the basis of 80 per cent of the New York-Chicago rate instead of the figure employed from Rochester and Syracuse.

From Williamsport, Pa., and Points Taking the Same Rates.—The general adjustment from this group to the 60 per cent group is that whatever rates may be established from Baltimore are applied from Williamsport. To percentage groups, other than the 60 per cent group, commodity rates are scaled on the basis of 77 per cent of the rates from New York to Chicago and other points in the 100 per cent group, observing the rates from Baltimore to the 60 per cent group as minimum.

Representative commodity rates from Williamsport, Pa., to western percentage groups are shown in the following tabulation:

FROM WILLIAMSPORT, PA. TO PERCENTAGE GROUPS	Pig Lead	Brimstone	Clay	Woods of Value	Ammunition (Fixed)	Cordage	Oysters	Cotton Bags	Pig Iron ①	Old Car Axles ①
73..................	12.5	..	15	..	22	20	..	..	$3.20	$3.40
79..................	13.5	..	15	..	22	21.5	..	..	3.50	3.60
88..................	15	..	16.5	..	22	24	..	..	3.90	4.00
100.................	17	..	18.5	..	24	27.5	..	..	4.40	4.60
120.................	20.5	..	22	..	29	33	..	..	5.20	5.50

Rates in cents per 100 lbs. unless otherwise specified.
①Per ton of 2,240 lbs.

Cumberland, Md., and Points Taking the Same Rates.— In general, the rates from the Cumberland, Md., group are made the same as the Williamsport group with the exception that the minimum rates established from Baltimore to the 60 per cent group are observed only by the Pennsylvania Railroad and affiliated lines. Traffic moving from this group by the Baltimore & Ohio Railroad or lines other than the Pennsylvania System would not be subject to this requirement.

From Belington, W. Va., and Richwood, W. Va., and Points Taking the Same Rates.—In a very general way, the rates established on the commodity from this group are based on the Cumberland adjustment, that is, the rates from Cumberland are not exceeded except in special instances where peculiar circumstances, such as the length of haul involved, require a disregard of the Cumberland basis.

It will be observed that from this group to those short-haul points the length of the haul varies greatly, for example, the haul from Belington to Pittsburgh, a 60 per cent point, is materially less than from Belington to Erie, Pa.; and consequently, in many cases it will be found that to such points the basis has not been adhered to. There are, however, so many exceptions to this

basis that it might well be said that the rates are
established by the carriers arbitrarily to meet condi-
tions as they find them, observing, in a general way,
the Cumberland, Md., rates as maxima.

*From Lexington, Va., and Points Taking the Same
Rates.*—Commodity rates from the Lexington, Va.,
group are on the same general basis as from Baltimore.
That is, the rates from the Lexington group are made
the same arbitraries under the New York rates as are
the Baltimore rates, observing, however, in all cases,
rates established from the Virginia Cities group to
Pittsburgh as minimum rates.

*From Virginia Cities and Points Taking the Same
Rates.*—The commodity rates from the Virginia Cities
group (as indicated on Map 9) to percentage territory
are the same as the rates from Baltimore to the same
percentage group, except that the Virginia Cities groups
are subject to varying minima, which minima rates are,
as a rule, announced in connection with the information
circular setting forth the base rate, the reason for which
is the same as in connection with the class rate, namely,
to equalize the competition of western gateways on
traffic to and from points in southern territory.

Fourth Section Violations

What has been said concerning the violation of the
fourth section of the Act to Regulate Commerce by the
class rates is true in a great measure as concerns the
commodity-rate adjustment. However, much freight is
carried via circuitous routes, in which case, the applica-
tion of the fourth section of the Act is violated.
Circuitous routes may offer better service than the
direct route either at point of origin or at the points
of destination, that is, the delivery at the point of origin
or destination may be more advantageous to the shipping

public than that of the direct line, from which it would appear to be an injustice to the shipper, who receives better service via the circuitous route, to force him to ship only via the direct route. For example, the circuitous route may have a spur by the side of the plant, whereas the direct route has none and it therefore cannot give the same service as the more indirect route.

The procedure employed has been to require the carriers to file with the Commission petitions citing the instances in which the fourth section of the Act is not adhered to, and to petition the Commission for relief from the provisions of this section of the Act. After due consideration, the Commission grants or denies the petitioner's request. It has, however, been quite liberal in this respect, and where lines have been thus handicapped, it has permitted them to meet the direct-line rate where the intermediate points have not been unduly prejudiced.

Although this practice is in direct violation of the fourth section of the Act to Regulate Commerce, the Commission has been given power to grant relief from the section where it is justified by special circumstances. This power of the Commission gives better service to the shipper and allows the carriers to retain traffic developed at considerable expense by means of special facilities, and it does not involve unjustifiable discrimination. The ruling of the Commission appears to be based on sound principles.

Many thousands of these petitions have been filed by the carriers throughout the country, and, as fast as possible, the Commission is passing upon the propriety of the practice. During the interim, as long as the rates involved are covered by petitions, the carriers are permitted to continue the practice of exacting higher charges from intermediate points than may be exacted

from more distant points. Unless, however, the rate is thus protected, the prohibition of the Act with respect to charging a greater sum must be observed, and complaints may be filed with the Interstate Commerce Commission alleging the unreasonableness of the custom.

The basis for both class and commodity rates from groups in Trunk Line and New England territories to percentage groups in the United States, having now been explained, we will take up in the following chapter the adjustment employed in the establishment of east-bound rates from percentage territory to Trunk Line and New England base points.

TEST QUESTIONS

1. When was the percentage system of rates inaugurated?

2. What were the confusing elements in rate-making in this territory prior to the adoption of this system?

3. What is the prime factor used in determining the rates to points throughout the territory?

4. Illustrate the procedure employed in assigning a point to a percentage group.

5. Are the groupings the same on eastbound traffic as on westbound traffic?

6. What factors account for the irregularity of the percentage groups?

7. How does the Interstate Commerce Commission view the propriety of this adjustment?

8. Is the same formula applied between points in Trunk Line Territory, on the one hand, and points *east* of the Indiana-Illinois state line, on the other, as is applied between Trunk Line points and points *west* of the Indiana-Illinois state line?

9. What classes of service are available between New York and Chicago?

10. Considering time, which route should be selected for quick delivery?

11. What traffic can rail-and-lake routes solicit to advantage?

12. Are the eastbound rates on a commodity the same as the westbound rates on the same commodity in all cases?

13. Illustrate the construction of class rates from New York to Indianapolis, Ind.

14. What is the rule for the disposition of fractions?

15. How are the ratings applicable in connection with Rule 28 determined?

16. Does the westbound commodity-rate adjustment follow the class-rate adjustment closely?

17. Why are the greater number of commodity rates confined to apply from seaboard cities on the Atlantic Coast?

18. Distinguish between the terms "general authorization," and "specific authorization."

19. What is the intent of minimum rate provisions?

20. Illustrate the blanketing of rates.

21. What accounts for the low rates applicable between Buffalo and New York?

22. Enumerate the interior eastern basing points.

23. What is meant by the expression "New York plus"?

24. How are the rates from Boston, Mass., to points in the 70 per cent group constructed, and does this method differ from the construction of rates from the same points to Cairo, Ill.?

25. Illustrate the construction of rates from Cumberland, Md., to Chicago.

26. Construct class rates from Albany, N. Y., to Toledo, Ohio.

27. Construct the fifth-class rate from New Berlin, N. Y., to Columbus, Ohio.

28. Construct the fifth-class rate from Ogdensburg, N. Y., to Indianapolis, Ind.

29. Construct the class rates from Syracuse, N. Y., to East St. Louis, Ill.

30. How are the rates from Baltimore to percentage territory adjusted with respect to the rates from Philadelphia?

31. What necessitates the special basis of rates obtaining to and from the Virginia Cities?

32. When a rate per ton is established on any commodity from New York to Chicago, what basis is employed in computing the rate upon such commodity from other points?

33. Illustrate the construction of commodity rates from Boston, Mass., to western destinations.

34. What is the basis for the construction of rates on burlap bagging from New York to western destinations?

35. How are the rates from New Berlin, N. Y., adjusted with respect to the rates from New York?

36. What minimum is observed in establishing the rates from Williamsport, Pa., and points taking the same rates, to western destinations?

37. Sum up the conditions affecting fourth section violations in this territory.

CHAPTER XIII

ALL-RAIL RATES EASTBOUND

Class Rates

A comparison of the groupings of Trunk Line and New England territories as shown on Maps 9 and 10 of the *Atlas of Railway Traffic Maps,* will disclose, in addition to the irregularity of the groupings, several more groups under the eastbound adjustment not shown on the map for westbound rates, the more important of which are the Rockland, Me., and Stanstead, Que., groups. However, this difference in the grouping does not always result in a difference in rates, since the rates from a great part of the percentage territory to both Rockland and Stanstead are made the same as the rates to Boston. From short-haul points, that is, from those on the eastern border of the percentage groups, owing to the exaction of minimum rates, which are made the same as interior percentage group points beyond, there is a difference in the rates established to the respective groups.

Until the general advance in freight rates in this territory was authorized, in 1914, there was, owing to a difference in the rule for the disposition of fractions, a difference in the rates *from* the percentage groups to New York as compared with the rates from New York *to* the same percentage groups.

In availing themselves of the increase sanctioned,

the carriers established a new rule for the disposition of fractions[1] and made it applicable on both east and westbound traffic, with the result that the rates, both east and westbound between New York and Chicago are the same. Consequently the rates shown in Table 17 usually apply also from the various percentage groups to New York although, as previously explained,[2] the outlines of the groups are not the same for both adjustments.

In Table 21 we have taken Chicago as a representative point of origin and have shown the rates applying therefrom to various eastern seaboard and interior basing points.

TABLE 21

ALL-RAIL RATES FROM CHICAGO TO EASTERN BASE POINTS
Governed by Official Classification

FROM CHICAGO To	RATES IN CENTS PER 100 POUNDS								
	Classes								
	1	2	R25	3	R26	4	5	6	R28
New York ...N. Y.	90	79	67	60	48	42	36	30	48.5
Boston ....Mass. ⎫ Rockland ....Me. ⎬ Stanstead ...Que. ⎭	97	85	72.5	65	52	46	39	32	52.5
Philadelphia ...Pa.	88	77	65.5	58	46.5	40	34	28	46.5
Baltimore .....Md.	87	76	64.5	57	45.5	39	33	27	45.5
Albany ......N. Y.	86.5	76	64.5	59.5	46	40.5	34.5	29	46.5
Utica ....N. Y.	81	71	60.5	54	43	38	32.5	27	43.5
Syracuse .....N. Y.	72	63	53.5	48	38.5	33.5	29	24	38.5
Rochester ...N.Y. ⎫ Mt. Morris..N.Y. ⎬ Emporium ....Pa. ⎭	66.5	58.5	49.5	44.5	35.5	31	26.5	22	35.5
Cumberland ..Md. ⎫ Elkins ...W. Va. ⎬	72	63	53.5	48	38.5	33.5	29	24	38.5
Norfolk .....Va. ⎫ Richmond ...Va. ⎬ Lynchburg ...Va. ⎭	87	76	64.5	57	45.5	39	33	27	45.5

The rates to points other than New York are established in conformity with the basis set forth in Table 22, and to illustrate the working of these formulas, the individual items comprising the table will be taken up in their order.

[1] Part 1, page 22, footnote 1.
[2] Part 2, page 98.

TABLE 22

BASIS FOR CONSTRUCTION OF EASTBOUND CLASS RATES FROM PERCENTAGE TERRITORY TO TRUNK LINE BASE POINTS

ITEM	To EASTERN GROUPS	FROM PERCENTAGE GROUPS	RATES OR ARBITRARIES IN CENTS PER 100 POUNDS Classes						REMARKS
			1	2	3	4	5	6	
1	New York, N. Y.	100	90	79	60	42	36	30	Base scale
2	Boston, Mass.	60 66½-120	5 7	4 6	3 5	3 4	2½ 3	2 2	Higher than New York
3	Rockland, Me.	60-120							Same as Boston, observing Cleveland-Boston rates as minima
4	Stanstead, Que.	60-120							Same as Boston, observing Toledo-Boston rates as minima
5	Philadelphia, Pa.	60 66½-120	6 2	6 2	2 2	2 2	2 2	2 2	} Less than New York
6	Baltimore, Md.	60 66½-120	6 3	6 3	3 3	3 3	3 3	3 3	} Less than New York
7	Albany, N. Y.	①60 { a b c 66½-120							85 } % of 92 } New 100 } York 96 } rates
8	Utica, N. Y.	①60 { a b c 66½-71 72-78 79-100 Over 100							80 85 92 } % of 83 } New York 87 } rates 90 91
9	Syracuse, N. Y.	①60 { a b c 66½-71 72-78 79-100 Over 100							75 78 84 } % of 74 } New York 76 } rates 80 84
10	Rochester, N. Y. Mt. Morris, N. Y.	①60 { a b c ⑧66½-71 72-78 79-100 Over 100	4 4 4 3 3	3 3 3 3 3	2 2 2 2 2	2 2 2 2 2	1 1 1 1 1	1 1 1 1 1	55 } % of New 62 } York rates 72 } but not 63 } less than 68 } arbitraries 74 } over Buffalo 76 } falo rates

TABLE 22—Continued

ITEM	To EASTERN GROUPS	FROM PERCENTAGE GROUPS	RATES OR ARBITRARIES IN CENTS PER 100 POUNDS						REMARKS
			Classes						
			1	2	3	4	5	6	
11	③Cumberland, Md.	②60 66½-71 72-78 79-120 Over 120							Arbitrary rates 74⎫ 76⎬ % of New York 80⎪ rates 82⎭
12	Belington-Elkins, W. Va.	60-120	Cumberland rates but not less than 48.1 40.8 30.3 20.9 17.8 14.6						
13	④Virginia Cities and Strasburg groups	60-120							⑤⑥⑦ Same rates as to Baltimore

①Varying percentages are established from points in the 60 per cent group.
②Central Freight Association legislation provides the following rates from points shown below, subject to the rates from same points of origin to Johnstown, Pa., as minima.

FROM	RATES IN CENTS PER 100 POUNDS					
	Classes					
	1	2	3	4	5	6
Brocton...............N. Y. Butler...................Pa. Corry...................Pa. Dayton.................N. Y. Dunkirk...............N. Y. Erie....................Pa. Falconer Jct............N. Y. Franklin................Pa. Irvineton...............Pa. Jamestown.............N. Y. Mayville...............N. Y. Meadville..............Pa. Oil City................Pa. Titusville...............Pa. Union City..............Pa. Warren.................Pa. Westfield..............N. Y.	48.5	41	32.5	24	17	13.5

③The rates to the Cumberland group may not be less than to the Johnstown group from the same percentage points in any case.
④The Virginia Cities are Burkeville, Kilby, Lynchburg, Norfolk, Petersburg, Pinners Point, Richmond, Roanoke, and Suffolk. The stations grouped as the Strasburg group on Map 10 take the same rates as the Virginia Cities, but the Strasburg stations are not listed as Virginia Cities in the tariffs. The Virginia Cities group shown on Map 10 includes the points that take the same rates as the Virginia Cities listed in this note.
⑤Except that from points taking (1) less than 77 per cent of the Chicago-New York rates and (2) higher than 77 per cent of the Chicago-New York rates which are located on, and east of, the N. & W. Ry., Columbus, Ohio, to Portsmouth, Ohio, and south of the P. C. C. & St. L. Ry., Columbus, Ohio, to Steubenville, Ohio, inclusive, rates are not less than the rates from Columbus, Ohio, to Baltimore, Md.
⑥In no case will the through rate exceed the published rate to Baltimore, Md., except that on traffic originating south of the Ohio River and east of that portion of the Mississippi River extending from Cairo, Ill., to New Orleans, La., the arbitraries named must be added to the rate to Pittsburgh regardless of the rate to Baltimore.
⑦Rates to Strasburg will in no case be less than rates to Richmond, Va.
⑧The first-class arbitrary from Mercer, Pa., and Stoneboro, Pa., is four (4) cents.

Item 1 of the above table shows the class rates from the 100 per cent territory (Chicago) to New York. This class scale is used as a basis for class rates from western percentage territory to eastern groups in Trunk Line and New England territories.

To many of the destinations, the rates from the 60 per cent group are varying percentages to be applied therefrom owing to the subdivision of this group. This adjustment, owing to its many ramifications, will be taken up in the last part of this treatise, and the present discussion of rate making confined to those groups taking 66½ per cent to 120 per cent, inclusive, of the base scale.

To Boston, Mass., and Boston Rate Points.—Contrary to the principle employed in establishing westbound rates *from* Boston, previously discussed, whereinto the greater part of percentage territory New York rates are applied from Boston, the rates from all points in percentage territory *to* Boston are made by the addition of fixed arbitraries. These figures are added to whatever rate is established from the percentage group in question to New York. Table 22 indicates that the rates from Chicago to Boston are the following arbitraries over the rates established to New York:

Classes	1	2	3	4	5	6
Rates	7	6	5	4	3	2

These are the figures indicated in item 2 of Table 22 for the 100 per cent group.

To Rockland, Me., and Points Taking the Same Rates.— The same formula that was applied in establishing the rates to Boston, is employed in establishing rates to Rockland, Me., and points basing thereon, with the proviso that in no event are the rates to be less than the rates established from Cleveland (a 71 per cent point) to Boston, Mass.

For example, 71 per cent of the Chicago-New York rates yields the following figures for the respective classes:

Classes	1	2	3	4	5	6
Rates	64	56	42.5	30	25.5	21.5

The addition of the Boston arbitraries indicated in item 2 of Table 22, results in the following through rates from the 71 per cent group to Boston:

Classes	1	2	3	4	5	6
Rates	71	62	47.5	34	28.5	23.5

As the rates established under the same principle from all groups taking less than 71 per cent of the Chicago-New York rates would be lower than these indicated, the 71 per cent Boston rates are held as minima from all points east. It will be noted that the haul to the Rockland group is, in all instances, much longer than the average haul to the Boston group, which accounts for the application of the minima.

Particularly as concerns the northern part of New England Territory freight traffic is very light, to say the least, the bulk of the tonnage being accounted for in movements of forest products which of necessity must carry low rates in order to encourage their movement, and the application of the minimum rates, so far as general merchandise traffic is concerned, in some measure offsets the expense incurred in affording this service. Consequently, many of the smaller lines and branch lines of trunk line systems as well, adjust their rates to points on such lines by the addition of fixed local rates to the base-point rate.

The Bangor & Aroostook Railroad, running in a northwesterly direction from Bangor through the State of Maine to St. John, Me., provides for the addition to the rates currently applicable to Rockland, Me. (Boston

rate point) of rates on ascending scales, as the distance
from the base point becomes greater, till, at St. John,
the scale is as follows:

Classes	1	2	3	4	5	6	R25	R26	R28
Rates	49	43	38	32	26	23	43[1]	38[2]	38[2]

[1] Second-class rate, used arbitrarily for R25 traffic.
[2] Third-class rate, used arbitrarily.

This makes the first-class rate from Chicago to St.
John $1.46 and the sixth-class rate 55 cents for one
hundred pounds, the rates to other stations on the line
varying from 14 cents to 49 cents above the established
rates to Boston on first-class freight and from 4.5 cents
to 23 cents on sixth-class freight, the sixth-class arbi-
trary of 23 cents being almost as much as the rate on
that class from Chicago to New York, the last-named
rate being only 26.3 cents.

The eastbound rates from Central Freight Associa-
tion Territory to northern Maine as affecting the theory
that rates should be the same in both directions may
appear unreasonable in comparison with the westbound
rates. The westbound rates, however, were made the
same as those from New York to enable the New Eng-
land factories to compete with those of the New York
group and to meet water competition from the New
England ports. The same necessity for granting
extremely low eastbound rates does not exist, since
northern Maine, lying well east of New York, is sparsely
settled and served by railways of light tonnage. The
Rockland rates, plus the 49 cents on first-class freight,
are probably not unreasonable on shipments from Cen-
tral Freight Association Territory to St. John, a town
in extreme northern Maine. The extraordinarily low
westbound rates are made to hold the industries and
the freight on the New England lines.

Industrial competition and water competition are
important factors in forcing the low westbound rates.

The eastbound rates are reasonable while the west-
bound rates are abnormally low.

Commissioner Charles A. Prouty, of the Interstate
Commerce Commission in the New England investiga-
tion, wrote the following paragraph concerning freight
rates in New England Territory:

> The long distance rates which New England enjoys are gen-
> erally very favorable to that locality .   .   .   rates upon the
> products of New England to markets of consumption in other
> parts of the country are unusually low. This is sometimes due
> to the voluntary acts of the carriers in order to put the manu-
> facturer of New England upon a competitive basis with the near
> producing point of which paper is an illustration. The rate on
> that commodity from producing points in Maine to Chicago is
> 20 cents per 100 pounds for a haul of approximately 1,300 miles.
> Most of the low long distance rates from New England are, how-
> ever, due to water competition. This is the case with those to
> the Pacific Coast and with those to interior territory contiguous
> to the Pacific Coast which is affected by that competition. This
> is also true of the great mass of rates into the southwest and
> even into the central west.

*To Stanstead, Que., and Points Taking the Same
Rates.*—In constructing rates to points in this group
and points basing thereon, the same general procedure
is employed as in the Rockland adjustment, subject,
however, as minimum rates, to those that may be estab-
lished from Toledo (a 78 per cent point) to Boston,
the class rate from the 78 per cent group to Boston,
being as follows:

Classes	1	2	3	4	5	6
Rates	77	67.5	52	37	31	25.5

*Philadelphia, Pa., Baltimore, Md., and Points Basing
Thereon.*—As is the case in the westbound adjustment,
rates from percentage groups to Philadelphia and
Baltimore are adjusted on a differential basis with
regard to such rates as may be established to New
York. The differentials themselves, however, are not

on the same measure, being lower on both first and second classes, resulting from a compromise between the Philadelphia and Baltimore interests, on the one hand, and the New York interests, on the other.

In the application of these differentials, it will be noted that, except from 60 per cent points, the rates on all classes to Philadelphia are uniformly 2 cents under New York rates, while Baltimore, in turn, is 1 cent under Philadelphia, or 3 cents under New York.

Albany, N. Y., and Points Basing Thereon.—To the so-called "interior" base points, of which Albany, N. Y., is the first, there is a radical departure from the method employed in establishing westbound rates and in practically no instance will the rates be the same from and to the same percentage groups. For example, the fourth-class rate from Cincinnati to Albany is not the same as the fourth-class rate from Albany to Cincinnati.

Under the basis set forth in item 7, Table 22, where it is desired to construct the rates from Cincinnati, Ohio (an 87 per cent point) to Albany, N. Y., the rates from Cincinnati to New York would first be constructed by taking 87 per cent of the Chicago-New York rates, resulting in the following scale:

Classes	1	2	3	4	5	6
Rates	78.5	68.5	52	36.5	31.5	26

and then, in turn, taking 96 per cent of these figures, obtaining the following as a final result:

Classes	1	2	3	4	5	6
Rates	75	66	50	35	30	25

which are the rates from Cincinnati to Albany.

Utica, N. Y., and Points Basing Thereon.—The same principle is employed in the establishment of rates to Utica. From percentage groups, however, rates are not

blanketed to the same extent as in the Albany adjustment, but are fixed on increasing percentages which ascend conforming, in some degree, to the increase in the length of the haul involved. That is, while the rates from Youngstown (a 66½ per cent point) are made 83 per cent of the New York rates from that point, the rates from Cairo, Ill. (a 120 per cent point) are made 91 per cent of the New York rates from that point.

Under the application of the foregoing basis, the rates from Ft. Wayne, Ind. (a 90 per cent point) to Utica, are as follows:

Classes	1	2	3	4	5	6
Rates	73	64	48.5	34	29.5	24.5

Syracuse, N. Y., and Points Basing Thereon.—In this group, owing to the diminishing length of haul, the percentages applied from the various percentage groups are not as great as to the base groups (Albany and Utica) to the east.

Current rates made under this adjustment from Elyria, Ohio (a 76 per cent point) are as follows:

Classes	1	2	3	4	5	6
Rates	52	45.5	35	23.5	20.5	17.5

To Rochester, N. Y., Mt. Morris, N. Y., and Emporium, Pa., and Points Basing Thereon.—This group takes in these three points for the reason that in the development of the eastbound billing instruction and the bases for rates, there was a lack of uniformity in designating the group, one line calling it the "Emporium Group," another the "Mt. Morris Group," and still others, the "Rochester Group," so in order to cover all of the groups, the individual names have been perpetuated. The territory involved, however, is that indicated on Map 10 in the Rochester grouping.

It will be observed from this map that the group is separated from the percentage groups only by the margin marking the Buffalo group, and, as concerns short hauls, rates are to be made on an alternative basis, namely, a percentage adjustment or certain arbitraries over the Buffalo rates. That is, if the application of the percentage indicated in the table opposite the corresponding group yields a lower rate than obtains by adding the arbitraries indicated to the rates to Buffalo from the same point of origin, the latter basis is to govern.

For example, the rates from Youngstown, Ohio (a 66½ per cent point) to New York, are as follows:

Classes	1	2	3	4	5	6
Rates	60	52.5	40	28	24	20

and to Rochester, the rates are to be made under the percentage principle 63 per cent of these figures, which is as follows:

Classes	1	2	3	4	5	6
Rates	38	33	25	17.5	15	12.5

The rates from Youngstown to Buffalo are as follows:

Classes	1	2	3	4	5	6
Rates	32	28	21	15	11	10

and the addition of the arbitraries indicated in item 10 of Table 22 to these rates, results in the following figures:

Classes	1	2	3	4	5	6
Rates	35	31	23	17	12	11

but as the percentage basis yields a higher rate, it is applied.

It might be said, in passing, that the arbitrary adjustment will apply only on very short hauls from points in the 60 per cent group to points in the Rochester-Mt. Morris group.

Cumberland, Md., and Points Basing Thereon.—In this adjustment we have a still different phase of rate-making, in that from the short-haul group, 60 per cent specific rates, which are not made on a fixed basis, being adjusted with regard to the rates prevailing from more distantly located percentage points, have been arbitrarily established by the interested lines, and as the long-and-short-haul clause is observed, the rates so established do not exceed those from more distant points.

From the other groups, 66½ per cent and over, the rates are made from ascending percentages which are the same, as will be noted, as obtain in the Syracuse, N. Y., adjustment from the same groups, with the exception of points in groups over 100 per cent.

Current rates in effect from Lansing, Mich. (a 95 per cent group) to Cumberland, are as follows:

Classes	1	2	3	4	5	6
Rates	68.5	60	45.5·	32·	27.5	23

Belington and Elkins, W. Va., and Points Basing Thereon.—The same formula is observed in constructing the rates to this group of stations as in the Cumberland adjustment, with the proviso that no rates are to be established which are less than the 48.1-cent scale indicated in item 12 of Table 22.

ALL-RAIL RATES EASTBOUND—Continued

COMMODITY RATES

As the class rates to eastern destinations are based upon the rates established to New York, so likewise are the commodity rates adjusted on a fixed relationship to such rates as may be established to New York, in so far as commodities which have a general authorization are concerned. These rates are applied from and to all points in the respective territories.

A comparison of the bases used in establishing class rates with those prevailing under the commodity adjustment indicates that, in many cases, they are identical, the same arbitraries or percentages being employed.

TABLE 23

GENERAL BASIS FOR COMMODITY RATES ON DOMESTIC SHIPMENTS
FROM PERCENTAGE TERRITORY (MAP 4) TO EASTERN GROUPS IN
TRUNK LINE AND NEW ENGLAND TERRITORIES (MAP 10)[1]

ITEM	To EASTERN GROUPS	FROM PERCENTAGE POINTS	GENERAL BASIS FOR COMMODITIES
1	Boston, Mass.	60-122	(1) When a commodity rate to New York is the same as a class rate, the commodity rate to Boston will be made the same arbitrary over the New York commodity rate as is applied in determining the class rate to Boston (Table 22, item 2) (2) When a commodity rate to New York is not the same as a class rate, the commodity rate to Boston will be made the same arbitrary over the New York commodity rate as is applied in determining the next higher class rate to Boston (Table 22, item 2)[2]

TABLE 23—Continued

GENERAL BASIS FOR COMMODITY RATES ON DOMESTIC SHIPMENTS
FROM PERCENTAGE TERRITORY (MAP 4) TO EASTERN GROUPS IN
TRUNK LINE AND NEW ENGLAND TERRITORIES (MAP 10)

ITEM	TO EASTERN GROUPS	FROM PERCENTAGE POINTS	BASIS FOR RATES IN CARLOADS
2	Rockland, Me.	60-120	Same as to Boston but not less than from Cleveland, Ohio, to Boston
3	Stanstead, Que.	60-120	Same as to Boston but not less than from Toledo, Ohio, to Boston
4	Philadelphia, Pa.	60-120	Two cents under New York rates
5	Baltimore, Md.	60-120	Three cents under New York rates
6	Albany, N. Y.	60-120	(1) When a commodity rate authorized to one eastern point is also authorized as a basis to other eastern points, the commodity rates to Albany will be made on the percentage of the New York rates which govern the class rates to Albany (Table 22, item 7) (2) When a commodity rate authorized to one eastern point is not specifically authorized as a basis to other eastern points, no change will be made to Albany, except where necessary to conform to the long-and-short-haul clause of the Interstate Commerce Law
7	Utica, N. Y.	60-120	Same rule as above, with use of percentages in item 8 of Table 22
8	Syracuse, N. Y.	60-120	Same rule as above, with use of percentages in item 9 of Table 22[3]
9	Rochester-Mt. Morris, N. Y.	60-120	Same rule as above, except percentages, notes, and arbitraries of item 10, Table 22, apply[3]
10	Cumberland, Md.	60	Specific rates not higher than from 66½ per cent points and not lower than to Johnstown
		66½-120	Same basis as for class rates (Table 22, item 11)[4]
11	Belington-Elkins, W. Va.	60-120	Same rates as to Cumberland, Md.[5]
12	Virginia Cities	[6]	Baltimore rates But not less than from Columbus, Ohio, (77 per cent group) to Baltimore
		[7]	Baltimore rates

TABLE 23—Continued

[1]Petition No. 1 for Relief from the Fourth Section of the Act to Regulate Commerce, filed by the agent of the Central Freight Association with the Interstate Commerce Commission, 1910 ; Pennsylvania Lines, Circular No. 10.

[2]Example: If a commodity rate of 28 cents per 100 pounds is authorized from Chicago, Ill., to New York, N. Y., which is not a class rate (the next higher class rate to New York being 31.5 cents per 100 pounds fifth-class), the rate to Boston would be ascertained by using the fifth-class arbitrary, thus establishing the rate, Chicago to Boston, at 31 cents.

[3](1) When eastbound rates on any commodity are on a basis of less than 21 cents per 100 pounds from Chicago to New York, the minimum rates from all points in Central Freight Association territory, taking 66½ per cent, or higher, to the Rochester and Syracuse groups are the rates applicable from the same points to Baltimore, Md. ; and the maximum rates are those applicable on the same commodities under the class rates.

(2) When eastbound rates on any commodity are on a basis of 21 cents or higher per 100 pounds from Chicago to New York, the rates are scaled on the authorized percentages shown on Map 4, but the minimum rates from all points in Central Freight Association territory, taking 66½ per cent, or higher, to the Rochester and Syracuse groups are the Baltimore rates from the same points on the basis of 20½ cents per 100 pounds from Chicago to New York, or 17½ cents from Chicago to Baltimore ; and the maximum rates are those applicable on the same commodities under the class rates.

For example, when the rate from Chicago to New York is 21 cents per 100 pounds, the rate from Chicago to Rochester is 17½ cents, and from 110 per cent points to Rochester, 19.6 cents, which are the rates to Baltimore, Md., from the same points on a basis of 20½ cents per 100 pounds from Chicago to New York.

The minimum rates specified in sections (1) and (2) do not apply to points that take Pittsburgh rates plus arbitraries, from 60 per cent points to Rochester and Syracuse groups, nor on articles taking brick rates.

[4]On grain, grain products and by-products of grain, rates will be made uniformly one-half cent less than current rates to Baltimore, Md., observing rates to Johnstown, Pa., as minima.

[5]Minimum rate on all commodities taking specific rates, except iron and steel articles, new iron and steel rails, iron and steel railroad cross ties, and oil, is the Columbus, Ohio, to Cumberland rate, subject to a minimum rate of 10.8 cents per 100 pounds. On oil, the minimum rate is 16.2 cents, on new iron and steel rails, and iron and steel railroad cross ties the usual arbitraries, as per fast-freight-line hand books, above current rates from Pittsburgh, Pa., and on iron and steel articles, when classified as follows :

Classes	4	5	5	6
	L. C. L.	L. C. L.	C. L.	C. L.
Cents per 100 pounds	20.9	17.8	17.8	14.6

[6]From percentage points specified in footnote 5 of Table 22.
[7]From percentage points other than those specified in footnote 5, Table 22.

As a prelude to the discussion of the various items comprising the foregoing table, it is appropriate to state that the proper differentials to add or deduct (where differential adjustments are authorized) may readily be determined by comparing the commodity rate from Chicago to New York with the class rate established from Chicago to New York. The general rule is, that when the commodity rate is not the same as the class rate, the differential for the next higher class is employed. Thus, if a commodity rate of 28 cents were established from Chicago to New York (this being only slightly higher than the sixth-class rate) the sixth-

class differential would not be used, but the differential for the fifth-class rate applied instead, as this is the next higher class.

Where, however, there are established commodity rates which are the same as class rates, the corresponding class differential is deducted, or, in other words, if a commodity rate were made which was the same as the second-class rate from Chicago to New York, the second-class differential would be added or subtracted as provided in Table 23. To assist in the following discussion representative commodity rates from western points of origin to New York, N. Y., have been reproduced in Table 24.

To Boston, Mass., and Points Basing Thereon.—On domestic traffic, rates to Boston are made certain figures or arbitraries higher than the rates that obtain to New York.

In connection with the explanation of the relationship of freight rates that is given here and elsewhere throughout the treatises on freight rates, two points should be given special attention: (1) Careful note should always be made as to the exact provisions that are made for the construction of freight rates and (2) very accurate application of these provisions must always be made. This is particularly true in cases where the provisions are somewhat complicated.

For some purposes approximate figures are good enough, but in the construction of freight rates it is generally the case that the exact rate is what is wanted. A mistake of one cent or a fraction of a cent on a freight rate is often the difference between getting or losing business or between making or losing money on certain business.

TABLE 24

COMMODITY RATES IN CENTS PER 100 POUNDS (EXCEPT AS NOTED) FROM VARIOUS WESTERN POINTS OF ORIGIN TO THE NEW YORK GROUP

ON / FROM	Aqua ammonia	Base bullion	Brick	Agricultural limestone	Pig lead	Clay (except common and fire)	Live cattle	Petroleum	Dressed meat	Live horses	Pig iron¹	Billets¹
60d Dunkirk, N. Y.	14.5	13	14	11.5	12	14.5	26.5	20	36.5	44.5	3.10	3.20
60c North East, Pa.	14.5	13	14	11.5	12	14.5	26.5	20	36.5	44.5	3.10	3.20
60b Erie, Pa.	14.5	13	14	11.5	12	14.5	26.5	20	36.5	44.5	3.10	3.20
60 Oil City, Pa.	16	14.5	15.5	12.5	13	16	28.5	20	36.5	49	3.10	3.20
66½ Youngstown, Ohio	16	14.5	15.5	12.5	15.5	19	33.5	23.5	36.5	49	3.50	3.60
71 Cleveland, Ohio	19	17	16	15	15.5	19	38.5	23.5	39	52.5	3.70	3.80
76 Elyria, Ohio	20	18	19.5	16	16.5	20.5	36	25	42	56	4.40	4.60
78 Toledo, Ohio	20.5	18.5	20	16.5	17	21	37	25.5	43	57.5	4.50	4.70
84 Adrian, Mich.	22.5	20	21.5	17.5	18.5	22.5	40	27.5	46	62	4.80	5.00
85 Bryan, Ohio	22.5	20.5	21.5	18	18.5	23	40.5	28	47	63	4.90	5.10
87 Tipton, Mich.	23	21	22	18.5	19	23.5	41.5	28.5	48	64.5	5.00	5.20
90 Fort Wayne, Ind.	24	21.5	23	19	20	24.5	43	29.5	49.5	66.5	5.20	5.40
92 Kendallville, Ind.	24.5	22	23.5	19.5	20	25	43.5	30.5	50.5	68	5.30	5.50
95 Lansing, Mich.	25	23	24	20	21	25.5	45	31.5	52.5	70.5	5.50	5.60
96 La Porte, Ind.	25.5	23	24.5	20	21	26	45.5	31.5	53	71	5.50	5.70
100 Chicago, Ill.	26.5	24	25.5	21	22	27	47.5	33	55	74	5.75	6.00

¹ Rates in cents per gross ton.

It will be noted that the first item of Table 23 refers to Table 22, item 2 (or the class-rate adjustment) for the bases to apply in connection with the estabishment of commodity rates to Boston. Accordingly, if a commodity rate of 21 cents were established from Chicago to New York, the rates on the same commodity to Boston, (if it had a general authorization) from Cincinnati, Ohio, would be made in the first instance by taking 87 per cent of 21 cents, producing 18.3 cents as the rate from that group to New York. As the 21-cent base rate is lower than the sixth-class rate, the sixth-class differential would be added to this rate, making a through rate of 20.3 cents from Cincinnati to Boston.

If, however, a commodity rate were established removing the application of, say, the normal third-class adjustment and establishing new rates on the basis of fourth-class rate, or 36.8 cents, the rates from the 60 per cent group would be made by taking 60 per cent of this figure, producing 22.1 cents as the rate to New York, and adding thereto the fourth-class differential of 3 cents as indicated in item 2 of Table 22.

To Rockland, Me., and Stanstead, Que.—The second item also outlines the basis for the construction of rates to Rockland, Me. It is necessary, however, in this particular adjustment, to maintain as minimum rates those established from Cleveland, Ohio (a 71 per cent point) to Boston, Mass. A similar requirement will be recalled in connection with the class-rate adjustment.

What has been said in connection with Rockland, Me., is true with regard to the establishment of rates to Stanstead, Que., with the modification that the minimum rates are to be not less than those made from Toledo, Ohio (a 78 per cent point) to Boston, Mass. For instance, if the rate on a commodity having a basis of 21 cents from Chicago to New York were desired from

Cleveland, Ohio, to Stanstead, Que., the rate would first be computed from Cleveland to Boston, which would be done by taking 71 per cent of the Chicago-New York rate, resulting in a rate of 14.9 cents, to which would be added the Boston arbitrary,[①] making a through rate of 16.9 cents. The rate from Toledo, Ohio, however, is 78 per cent of the Chicago-New York rate, or 16.4 cents, plus 2 cents, or 18.4 cents, and inasmuch as the Cleveland normal rate is less than this basis, it must be increased to the same figure as applies from the 78 per cent group.

The reason for this procedure was set forth, in general, in connection with the class-rate adjustment, and it is unnecessary to repeat it at this time.

To Philadelphia, Pa., and Baltimore, Md.—The construction of commodity rates to Philadelphia merely involves the subtraction of the differentials indicated in item 4 of Table 23 from the New York rates from the respective percentage group, and it is therefore subject to no complication.

To Baltimore, Md.—What was said with reference to the rates to Philadelphia is true with regard to the rates to Baltimore, Md. It may be noted that the rates to Baltimore will in all instances be one cent per hundred pounds less than the rates to Philadelphia, which, in turn, are 2 cents less than the rates to New York.

To Albany, N. Y.—To Albany, N. Y., on commodities which have a general authorization, or, in other words, which move from all points in percentage territory, the rates are established upon the same percentages as are used in connection with the establishment of class rates. Thus, if a commodity rate of 33 cents were established from Chicago to New York and the rates from East St. Louis, Ill. (a 117 per cent point) were desired, the East St. Louis-New York rate would be first established, which would be done by taking 117 per cent of the Chi-

① Table 22, item 2.

cago rate, producing 38.61 cents, or, under the rule for the disposition of fractions, 38.6 cents per one hundred pounds. Item 7 of Table 22 (to which item 6 of Table 23 refers) indicates that, from the 117 per cent group to Albany, rates are to be made 96 per cent of the rate from the same group to New York, and, accordingly, 96 per cent of the East St. Louis-New York rate, 38.6 cents, gives 37.05 cents, or 37.1 cents as the East St. Louis-Albany rate.

As we have said in an earlier part of this treatise, frequently rates are authorized to apply only from specific points of origin, or, in other words, they have no general authorization, and in such cases rates are not established from any intermediate points except to remove such violations as may occur in so far as the long-and-short-haul clause in the Act to Regulate Commerce is concerned.

To Utica, N. Y.—Inasmuch as Albany is more distantly located and on the same line with Utica, it is only natural that the rates that are established to Albany influence in some degree the rates that are made to Utica. Consequently, the same rule with reference to authorized and non-authorized rates holds good with respect to this point. The establishment of rates under this basis involves the same procedure (with the substitution of the Utica percentages for the Albany per cent) as indicated in Table 22.

To Syracuse, N. Y.—The same also holds good with respect to the Syracuse adjustment of rates. The Illustration given in connection with the adjustment of rates to Albany, N. Y., should suffice for this point as well.

To Rochester and Mt. Morris, N. Y.—In so far as procedure is concerned, with respect to rates having a general authorization and those not, the same principles are applied to Rochester and Mt. Morris. These rates

are also based upon the percentages for the making of class rates indicated in item 10 of Table 22. This adjustment, however, is qualified to the extent that the rates so obtained must not be less than the rates that are established from the same point of origin to Baltimore, Md., when the commodity is rated on the basis of less than 21 cents per one hundred pounds, from Chicago to New York, and that if the rates are on the basis of 21 cents or higher, the minimum rates are to be the Baltimore rates from the same point on the basis of 20½ cents per hundred pounds from Chicago to New York, or 17½ cents from Chicago to Baltimore.

To illustrate this, assume that a commodity rate of 19 cents per one hundred pounds were established from Chicago to New York and that the rate from Canton, Ohio (a 71 per cent point) to Rochester, N. Y., were desired. The rate from Canton to New York would first be constructed, which would be done by taking 71 per cent of the Chicago-New York rate, resulting in 13.49 cents, or 13.5 cents, as the rate from Canton to New York. The rate to Rochester is then made in conformity with item 10 of Table 22 by taking 63 per cent of this figure, giving 8.5 cents as the rate under the normal adjustment. However, inasmuch as the base rate is less than 21 cents, it is necessary to ascertain what the rate is from the 71 per cent group to Baltimore, in order that it may be determined whether the 8.5-cent rate is lower than the minimum rate. Inasmuch as item 5 of Table 23 states that Baltimore rates are made 3 cents less than the New York rates, it is readily discerned that the Baltimore rate in this case is 10½ cents. Consequently, this figure would be applied instead of that obtained under the normal adjustment.

To illustrate the second part of the qualification, take a rate of 22.1 cents, which is higher than the 21-cent

rate marking the dividing line in this particular adjust-
ment.   Rates from Cleveland would be made in iden-
tically the same fashion as set forth in the preceding
paragraph, and a rate of 9.9 cents from Cleveland to
Rochester is obtained.   This, however, is less than the
Cleveland-Baltimore rate, which is made by deducting
3 cents from the Cleveland-New York rate, 14.6 cents,
on the basis of 20½ cents from Chicago to New York,
or 11.6 cents.   Consequently, the latter rate is applied.

To Cumberland, Md.—In the Cumberland, Md., adjust-
ment from the 60 per cent group, we have not only
minimum rates prescribed, but maximum rates as well.
Consequently, rates are made that conform thereto,
observing that they are not less than the rates to Johns-
town, or that they do not exceed the rates that are
established from the 66½ per cent group to Cumberland.

From territory other than the 60 per cent group these
rates are made on the same percentage of the Chicago-
New York rate as applies in connection with the class-
rate adjustment, with the exceptions noted.

To Belington and Elkins, W. Va.—To Belington and
Elkins, W. Va., the same basis as is applied in connec-
tion with the Cumberland, Md., adjustment is extended
to these points, with the exceptions noted.

To Virginia Cities.—In the adjustment of rates to
Virginia Cities there is, owing to the fact that the terri-
tory is served by direct lines such as the Baltimore &
Ohio Railroad, the Norfolk and Western Railway, and
the Chesapeake & Ohio Railway, a so-called "split
basis" applied from certain competitive groups on, and
adjacent to, the Ohio River.   The dividing line of this
grouping is the line of the Norfolk and Western Rail-
way from Columbus, Ohio, through Circleville, Chilli-
cothe, and Waverly to Portsmouth, Ohio, and from all
of the groups east of this line, rates are established
which must not be less than the rates from Columbus,

Ohio (a 77 per cent point) to Baltimore, Md., the class rates under this adjustment being as follows:

Classes	1	2	3	4	5	6
Rates	66.5	58	43	29.5	24.5	20

On class traffic, or commodities, established on a class basis, these figures must be observed as minima rates from this territory. For commodity rates (except on livestock) the Columbus-to-Baltimore rates are the minima.

From destinations in groups north and west of this line Baltimore rates are applied.

ALL-RAIL RATES EASTBOUND—Continued

SPECIFIC COMMODITY ADJUSTMENTS

In the case of many commodities, the competition between carriers, between like commodities and between centers of production and consumption has become so keen that, coupled with the nature of the product, it has been found necessary to establish special rates and rate adjustments which digress, to some extent, from the percentage principle of rate construction as applied to classified traffic or general commodities.

As a general proposition, from the railroad traffic manager's standpoint, the rates should be, and usually are, established which will insure each division of the traffic yielding its proportion of the transportation expense and which at the same time will permit an unrestricted movement and the widest competition.

This has been called ''making rates what the traffic will bear,'' and while this phrase has acquired some bad repute, there seems to be no term that so adequately fits the case. According to W. M. Ackworth, this phrase translated into railway language means this:

The total railway revenue is made up of rates which, in the case of traffic unable to bear a high rate, are so low as to cover hardly more than actual out-of-pocket expenses which, in the case of medium-class traffic, cover both out-of-pocket expenses and a proportionate part of the unapportioned cost and which finally, in the case of high class traffic, after covering that traffic's own out-of-pocket expenses, leaves a large and disproportionate surplus available as a contribution towards the unap-

portioned expense of the low-class traffic, which such traffic itself could not afford to bear. This, in principle and outline, is the system of charging what the traffic can bear. It is a system which (the point must be reiterated) is, always has been, and, as far as we can see, always must be, adopted on all railways whether they be state enterprises or private undertakings. It is a system to the interests of the public because traffic is thereby made possible which could not come into existence at all if each item of traffic was required to bear not only its own direct expenses but its full share of all the standing charges.

Stated in other words, if the rates applicable on grain, grain products, dairy products, live stock, and iron and steel and articles manufactured therefrom were adjusted on a simple distance scale, increasing in some relation as the distance increases, or if bulk and weight of articles were made the basis of charging, the rates thus obtained would become prohibitive and preclude the possibility of the movement and the marketing of these commodities from the more remote districts. A rate must be fixed for each commodity at which it will move. Rates on grain must be so adjusted as to insure to the farmer a return for his labors and to make the raising of grain attractive and still enable it to be traded and sold at primary markets in competition with grain from districts more advantageously situated. If the rate on agricultural products were the same per ton as the rate on cutlery, not a bushel of wheat would move any great distance by rail for export. This fact was recognized in the shipping industry long before railroads were thought of.[1]

So we find that many of the commodities which according to their nature are highly competitive need low rates to influence their movement and that special commodity rates or rate adjustments have been established by the carriers in Official Classification and other classification territories.

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[1] See Anthony Van Wagman's *Government Ownership of Railways*.

The construction of rates on grain and grain products, live stock and dressed meats, and iron and steel and articles manufactured therefrom will be taken up as representative of the construction of rates applicable on these specific commodities.

Grain and Grain Products.—In taking up this adjustment, it is appropriate to attempt some general definition of this term, and while there is some discrepancy in the existing list of articles taking these rates or assigned to these groups, the term "grain" is usually defined as follows:

Barley	Milo-Maize
Buckwheat	Oats
Corn	Rye
Corn, Kaffir	Speltz
Corn, Pop	Wheat

The term "grain products" is applied to the products of the above mentioned grains, or combinations thereof with each other, or with other foodstuffs of which grain is in the largest proportion, such as the following:

Avena	Farina	Grits	Sprouts, Malt
Barley, Sprouted	Feed, Oat	Hominy	Starch
Bran	Feed, Wheat	Malt	Wheat, Cracked
Cerealine	Flakes, Brewers'	Middlings	Wheat, Crushed
Corn, Cracked	Flour	Oatmeal	Wheatboro
Cornmeal	Food, Algrain	Oats, Rolled	Wheatlet
Cream of Barley	Food, Ralston's	Postum Cereal	Wheat, Rolled
Cream of Wheat	Golden Harvest	Ship Stuff	
Farinose	Grape Nuts	Shorts	

Many tariffs also make a further division of this traffic by enumerating certain by-products of grain. It is stated that a bushel of wheat, for example, will yield but 40 pounds of flour and the refuse, after the grinding in the form of chaff, hulls, etc., has a much lower value than the product of the kernel of the grain and consequently needs rates that are somewhat less in order to enable it to move. These by-products are in many cases combined with other products and commodities in

the preparation of stock food, and articles such as these comprise a greater percentage of the present by-products of grain. Representative items are as follows:

Bran, Flax	Feed, Glucose	Meal, Alfalfa
Bran, Rice	Feed, Gluten	Meal, Calf
Chaff, Rice	Feed, Mixed Live Stock	Meal, Cob
Cottonseed Hulls	Feed, Poultry or Pigeon	Meal, Gluten
Dextrine	Feed, Triangle-Calf	Screenings, Flax
Feed, Alfalfa	Flour, Foundry	Shives, Flax
Feed, Alfalmo	Grain, Brewers' Dried	
Feed, Flax	Grain, Distillers' Dried	

In other territories, it frequently happens that the by-products and grain products are grouped together under the grain products. However, in the Official Classification Territory, for some time the practice has been to make a distinction with respect to grain products and grain by-products.

For a number of years, the grain and grain products movement has exceeded one million tons per annum, a large proportion of which moves from or through Central Freight Association Territory to Trunk Line and New England territories both for domestic consumption and for export.

Within recent years, the lateral lines serving the gulf ports and tapping the wheat belt in the western states have, by the installation of immense warehouses and improved terminal facilities, succeeded in attracting a considerable portion of this business to their routes with the result that the present day basing rates from Central Freight Association Territory to New York are lower than the normal rates have been for years past.

To assist the reader in following the adjustment through, Map 15 has been incorporated in the *Atlas of Railway Traffic Maps*. This map shows the adjustment of rates on grain and grain products in effect at the present time. The group relationship formerly used in establishing rates from points west of the numbered groups has

been abandoned and rates from such points are constructed by the addition of specific arbitraries to the Chicago reshipping rate as hereinafter described.[2]

So far as the territory lying east of the Indiana-Illinois state line is concerned, the rates shown in the various groups are those applicable on shipments of domestic grain from points within these groups to New York.

In establishing the rates from various points of origin the rates made from Chicago are used as a basing factor, and representative rates applying on grain and grain products are reproduced in Table 25.

TABLE. 25

RATES IN CENTS PER 100 POUNDS ON GRAIN AND GRAIN PRODUCTS IN CARLOADS FROM GROUPS 1-15 (MAP 15) TO NEW YORK

To New York FROM	GRAIN		GRAIN PRODUCTS		
	Domestic	Export net	Domestic	Export except flour	Export flour
Groups A, B, C, and points west thereof...		Specific	Rates		
Group 1	24	22.5	24.5	24.5	23.5
Group 2	23	21.5	23.5	23.5	22.5
Group 3	23	21.5	23.5	23.5	22.5
Group 4	24	22.5	24.5	24.5	23.5
Group 4-A	①	①	①	①	①
Group 5	23	21.5	23.5	23.5	22.5
Group 6	21.5	20	22.5	22.5	21.5
Group 7	20.5	19	21	21	20
Group 8	20	18.5	20.5	20.5	19.5
Group 9	18.5	17	19.5	19.5	18.5
Group 9-A	20	18.5	20.5	20.5	19.5
Group 9-B	19.5	18	20	20	19
Group 10	18	16.5	18.5	18.5	17.5
Group 11	17.5	16	18	18 .	17
Group 12	16.5	15	17	17	16
Group 13	21	19.5	21.5	21.5	20.5
Group 14	20	18.5	20.5	20.5	19.5
Group 15	19.5	18	20	20	19

① Rates to New York City are based on percentages (named on Map 4) of the basing rates named in this section from group 1.

[2] Page 195.

In the above table, we have incorporated the rates from the various groups lying east of the Indiana-Illinois state line, having omitted those applying from groups west of it owing to the lack of any system that could be employed to give a general synopsis of rate construction from that territory.

From the more important points (as may be determined by applying the percentages indicated on Map 4) rates obtaining under the grain and grain-products adjustment are not widely different from those that would obtain were the percentage principle applied. For example the rates on domestic grain from Springfield, Ohio, to New York, N. Y., is 20 cents. The rate, if the regular basis of the 82 per cent of the Chicago to New York rate were applied, would be 20 cents.

Likewise, the rate on domestic grain from Columbus, Ohio, to New York is only 18.5 cents, while 77 per cent of the domestic grain rate of 24.5 from Chicago to New York is 18.86 cents which, under the rule for the disposition of fractions is construed as 19 cents. Thus, usually, we have a rate that is slightly lower than that obtaining under the application of the percentage principle, although in some instances the reverse condition might obtain.

The rate from Indianapolis, Ind., on grain to New York is 21.5 cents, while 93 per cent of the Chicago rate is 23 cents. The Indianapolis group in the grain adjustment, it may be observed, includes roughly both 90 and 93 percentage group points of the class-rate and commodity-rate adjustments set forth on Map 4. Even 90 per cent of the Chicago rates, however, would be 22 cents.

Taking a few specific points west of the Indiana-Illinois state line, we find that the same principle has been applied. The rate from Peoria, Ill., is 28 cents, while 110 per cent of the Chicago rate is 27 cents. The

rate from Springfield is only 28 cents, while 113 per cent of the Chicago rate is 27.5 cents. The rate from Quincy, Ill., is 25.8 cents while 117 per cent of 24.5 cents is 28.5 cents. These examples indicate that the grain rates are not widely different from those that would obtain were they on the regular percentage basis. The examples also indicate that the rates are, as a rule, slightly lower than they would be if they were on the regular eastbound percentage basis applicable to class and general commodity traffic.

In general, the rates from points lying west of group 1 are made by the addition of arbitraries, usually called "specifics" to the reshipping rates applicable from Chicago to New York.

The reshipping rates on grain from Chicago to New York are 19.5 cents for domestic traffic and 18 cents for export traffic. The reshipping rates on grain products from Chicago to New York are 20 cents for domestic traffic, 20 cents for grain products (except flour) for export, and 19 cents for export flour. These reshipping rates from Chicago to New York plus the specifics above mentioned make the rates from the territory lying west of group 1 to eastern destinations.

The rates from groups 1 to 15 to New York are not adjusted on a fixed basis but established individually by the carriers operating east of the Indiana-Illinois state line, the current rates closely approximating the regular percentage basis, observing as maximum rates, such rates as are established from the territory on and west of the Indiana-Illinois state line.

To Eastern Base Points Other Than New York

Having determined the proper rates to employ from the various groups of origin to New York, the rates to other eastern base points which are made with

relation to those rates are now presented for consideration, the current basis being set forth in Table 26.

TABLE 26
Basis for Rates on Grain and Grain Products from Groups on Map 15 to Eastern Groups

Item	To Eastern Groups	From Groups on Map 15	Basis for Rates in Carloads [1]
1	Boston, Mass.	All groups	Domestic, 2 cents over New York Export, same as New York
2	Rockland, Me.	All groups	Boston rates but not less than from Cleveland, Ohio, to Boston
3	Stanstead, Que.	All groups	Boston rates but not less than from Toledo, Ohio, to Boston
4	Philadelphia, Pa.	All groups	Cents under New York rates: domestic grain and grain products, also export grain products except flour, 2; export grain and flour, 1 [2]
5	Baltimore, Md.	All groups	Cents under New York rates: domestic grain and grain products, also export grain products except flour, 3: export grain, 1½; flour,2 [3]
6	Albany, N. Y.	West of group 1 1-15	Specifics over rates from Chicago 96% of New York rates
7	Utica, N. Y.	West of group 1 4-A, 15 1-4, 5-8 9-A, 9-B, 13, 14⎫ 9, 10, 11 12	Specifics over rates from Chicago 91 90 ⎫ 87 ⎬ % of New York rates 83 ⎭
8	Syracuse, N. Y.	West of group 1 4-A 1-4, 5-8 9-A, 9-B, 13-15⎫ 9, 10, 11 12	Specifics over rates from Chicago 84 80 ⎫ 76 ⎬ % of New York rates [2] 74 ⎭
9	Rochester, N. Y.	West of group 1 4-A 1-4, 5-8 9-A, 9-B, 13-15⎫ 9, 10, 11 12	Specifics over rates from Chicago 76 74 ⎫ 68 ⎬ % of New York rates [3] 63 ⎭
10	Cumberland, Md.	All groups	½ cent under Baltimore rates but not less than rates to Johnstown
11	Belington, Elkins, W. Va.	All groups	Cumberland rates but not less than from Columbus, Ohio, to Cumberland, subject to minimum rate of 10.8 cents per 100 pounds

TABLE 26—Continued

BASIS FOR RATES ON GRAIN AND GRAIN PRODUCTS FROM GROUPS ON MAP 15 TO EASTERN GROUPS

ITEM	TO EASTERN GROUPS	FROM GROUPS ON MAP 15	GENERAL BASIS FOR COMMODITIES
12	Virginia Cities	Points in footnote 5 Table 22	Baltimore rates but not less than from Columbus, Ohio, to Baltimore
		Other points	Baltimore rates ˙

[1] The rates from groups on Map 15 to New York are shown in Table 25, and the basis for these rates is explained on pages 186-190. The sixth-class rate from groups on Map 4 to eastern points is the maximum.
[2] Except that from Buffalo, N. Y., Erie, Pa., and West Fairport, Ohio, to Baltimore and Philadelphia on ex-lake grain from differential territory for export rates should not exceed two-tenths of 1 cent per bushel on barley and oats, and three-tenths of 1 cent per bushel on wheat, corn, and rye.
[3] Baltimore rates are the minima to Rochester and Syracuse.

To Boston, Mass.—As reflecting the adjustment employed in establishing class and general commodity rates, it will be found that the rates on domestic traffic are 2 cents per one hundred pounds on both grain and grain products higher than the rates currently in effect from the same point of origin to New York.

On export traffic, however, the arbitrary is waived and the port of Boston is accorded the same rates as may be established to New York. This procedure places these points on an equality in so far as freight rates are concerned, and the additional haul required in reaching Boston is offset to some degree by slightly lower rates obtaining for ocean carriage applying therefrom.

Under the domestic adjustment, a rate from Indianapolis, Ind., would first be made by constructing the rate to New York as previously given, and to this rate would be added 2 cents, resulting in a through rate of 23.5 cents.

Rockland, Me., and Stanstead, Que.—Neither of these groups include any point on the seaboard through which traffic may be exported or imported. Consequently, the

domestic adjustment of rates only is shown in the table, the basis being that such rates as are authorized to Boston are to be applied to Rockland and Stanstead, observing to Rockland such rates as may be established from Cleveland (a 71 per cent point), and to Stanstead such rates as may be established from Toledo (a 78 per cent point) to Boston, Mass., as minimum rates.

Philadelphia, Pa.—The export rates on grain and flour to Philadelphia are made 1 cent per 100 pounds under the rates on corresponding commodities from the same points of origin to New York. On domestic grain and grain products, also on export grain products except flour, the regular Philadelphia commodity differential of 2 cents under the New York rate is applied.

From percentage territory, this will result in lower rates to Philadelphia than to New York or Boston. These rates are designed to enable this city to attract a proportion of this important traffic and to offset the disadvantage possessed by Philadelphia because of its location with respect to ocean traffic.

Baltimore, Md.—From percentage territory to Baltimore, the export rates on grain are 1½ cents and on flour 2 cents per 100 pounds under the rates to New York from the same points of origin. Rates on domestic grain and grain products, also export grain products except flour, are the usual Baltimore differential of 3 cents per 100 pounds under the New York rates.

Albany, N. Y.—From the territory lying west of group 1, the rates to Albany are adjusted by the addition of specifics as established from the various points of origin to the reshipping rates which apply from Chicago.

The rates from the other numbered groups are on the basis of 96 per cent of the current New York rate from the same point of origin.

Utica, N. Y.—From territory lying west of group 1, the rates to the Utica group are specifics over the reshipping rates which apply from Chicago.

From territory comprised in the numbered groups, varying percentages of the New York rates are authorized. From groups 4-A and 15, rates are to be made 91 per cent of the New York rates, and from other points as indicated in item 7 of Table 26, the rates are 90, 87, and 83 per cent of the New York rates.

Syracuse, N. Y.—From territory lying west of group 1 to Syracuse, N. Y., the rates are specifics over the reshipping rates which apply from Chicago.

From the numbered groups, the rates to the Syracuse group are the percentages indicated in item 8 of Table 26 of such rates as may be established from those groups to New York.

Rochester, N. Y.—From territory lying west of group 1 to the Rochester group, the rates are made in the same manner as to the foregoing groups from the same points of origin, namely, by the addition of specifics to the Chicago reshipping rates.

From the numbered groups, the rates are the percentages indicated in item 9 of Table 26 of the New York rates from the same point of origin, observing the Pittsburgh-Baltimore rates as minima and the Baltimore rates as maxima when such rates exceed the Pittsburgh-Baltimore rates.

Grafton, Connellsville, and Johnstown, Pa.—The rates to these points are made by the addition of arbitraries

to such rates as are established to Pittsburgh, observing the requirements as to minimum rates. This adjustment is more fully dealt with, however, in Chapter XXII, and a detailed discussion of the adjustment of rates on grain and grain products will be found therein.

Cumberland, Md.—The rates to Cumberland, Md., are made ½ cent per 100 pounds less than the rate established to Baltimore from the same point of origin observing as minimum rates such rates as are established from the same point of origin to Johnstown, Pa.

Belington-Elkins, W. Va.—To the Belington and Elkins group, the rates are the same as from the same points of origin to the Cumberland group, observing the rates established from Columbus, Ohio (a 77 per cent point) to the Cumberland group as minimum subject to a further minimum requirement that no rate is to be less than 10.8 cents per 100 pounds.

Virginia Cities.—The rates to the Virginia Cities from points east of a line described in footnote 5 of Table 22 are the same as the rates from the same points to Baltimore, except that in no case are they to be less than the rates established from Columbus, Ohio (a 77 per cent point) to Baltimore. From other points in percentage territory, the rates are the same as to Baltimore without regard to the minimum.

The foregoing includes the general adjustment of rates on grain and grain products but, before disposing of the subject, it is well to consider some of the reshipping rates that are established from the primary western grain markets, among which Chicago, Peoria, and St. Louis loom prominently.

Reshipping Rates

It will be recalled that the Chicago reshipping rates, previously given, plus certain specific rates, make the

rates from points in the territory lying west of group 1. The reshipping rates from East St. Louis, Ill. (Table 27) are uniformly 3 cents over the reshipping rates from Chicago to New York while the reshipping rates from Peoria are 1½ cents per 100 pounds over the Chicago reshipping rates.

There are also reshipping rates applicable on ex-lake grain, that is, grain arriving at these lake ports from the west and northwest by vessel, for example, from Buffalo, N. Y., and Toledo, Ohio. The Toledo rates are to Buffalo reshipping rates as 78 is to 60 or 130 per cent of the Buffalo rate.

The Chicago reshipping rates apply from all stations within the city limits and from Chicago district stop-over points on shipments originating at points west of the west bank of the Mississippi River and at all points north of the Illinois-Wisconsin state line and west and north of Lake Michigan from which through rates are not in effect.

TABLE 27

RESHIPPING RATES IN CENTS PER 100 POUNDS ON GRAIN AND GRAIN PRODUCTS IN CARLOADS FROM CHICAGO, PEORIA, AND EAST ST. LOUIS TO NEW YORK

To New York FROM	GRAIN		GRAIN PRODUCTS		
	Domestic	Export net	Domestic	Export except flour	Export flour
Chicago	19.5	18	20	20	19
Peoria	21	19.5	20	20	19
East St. Louis........	22.5	21	23	23	22

The reshipping rates named from East St. Louis are published from East St. Louis, Ill., St. Louis, Mo., Hannibal, Mo., and Louisiana, Mo., and apply on shipments from all originating points beyond, from which through rates are not in effect.

The reshipping rates from Peoria apply from that
point, also from Pekin, Ill., on shipments originating at
points west of the west bank of the Mississippi River
and also at points north of the Illinois-Wisconsin state
line and west and north of Lake Michigan, from which
no through rates are in effect. On grain and grain
products from points west of the west bank of the
Mississippi River and located north and west of a line
drawn via the Chicago, Milwaukee & St. Paul Railway,
via Sabula, Ia., to Tama, Ia., and thence via the Chicago
and North Western Railway to Council Bluffs, Ia., the
rates via Peoria to points east of the western termini of
the eastern trunk lines are the same as current via Chi-
cago on the basis of the local rates to Chicago plus the
reshipping rates therefrom.

On shipments from the northwest to eastern groups,
the through rates via the west bank of Lake Michigan
ports, Mackinaw City, and Manistique, Mich., are the
same as via Chicago. The reshipping rates from Mil-
waukee, Kewaunee, Manitowoc, and Marinette, Wis., and
Menominee and Mackinaw City, Mich., on shipments
forwarded via routes across Lake Michigan are the
same as from Chicago.

From Manistique, Mich., the reshipping rates are
1 cent in excess of the rates from Chicago. The reship-
ping rates published on grain and grain products from
Milwaukee, Wis., via routes across Lake Michigan,
apply also via Chicago or via Chicago Junctions. The
same arbitraries and percentages apply to the eastern
groups on all through rates on grain and grain products,
that is, the arbitraries and percentages shown in Table
26 apply on rates from groups on Map 15 and also on
through rates from points west of these groups.

The purpose that these reshipping rates are designed
to serve (and they serve it well) is to equalize through
rates from points beyond, and to enable the grain to be

stopped in transit at some convenient point where it is milled and the product reforwarded at a reasonable through rate, which is materially less than the rate that would be applied were a combination of full local rates to and from the milling points exacted.

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TABLE 28

BASIS FOR CONSTRUCTION OF RATES FROM 60 PER CENT TERRITORY TO EASTERN BASING POINTS

From / To	Group 1 Dunkirk, N. Y. Classes	Group 2 Erie, Pa. Classes	Group 3 North East, Pa. Classes	Group 4 Oil City, Pa. Classes	Group 5 Clarion, Pa. Classes	Group 6 Waterson, Pa. Classes	Group 7 Holden, Pa. Classes
	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
Boston, Mass.	5 4 3 3 2½ 2½ over New York	5 4 3 3 2½ 2½ over New York	5 4 3 3 2½ 2½ over New York	5 4 3 3· 2½ 2½ over New York	5 4 3 3 2.5 2½ over New York	5 4 3 3 2½ 2½ over New York[1]	5 4 3 3 2½ 2 over New York[1]
New York, N. Y.	60% of Chicago-New York	60% of Chicago-New York	60% of Chicago-New York	60% of Chicago-New York	7.4 7.4 7.4 6.3 5.3 4.2 higher than Oil City	7.4 7.4 6.8 5.8 4.7 3.2 higher than Oil City	6.3 6.3 6.3 5.3 4.2 3.2 higher than Oil City[1]
Philadelphia, Pa.	[1]6 6 2 2 2 2 less than to New York	6 6 2 2 2 2 less than to New York	[2]6 6 2 2 2 2 less than to New York[1]	6 6 2 2 2 2 less than to New York	6 6 2 2 2 2 less than to New York[1]	6 6 2 2 2 2 less than to New York[1]	6 6 2 2 2 2 less than to New York
Baltimore, Md.	[1]6 6 2 2 2 2 less than to New York	[2]8 8 3 3 3 3 / [2]6 6 2 2 2 2 less than to New York	[2]6 6 2 2 2 2 less than to New York[1]	8 8 3 3 3 3 less than to New York	8 8 3 3 3 3 less than to New York[1]	8 8 3 3 3 3 less than to New York[1]	8 8 3 3 3 3 less than to New York
Albany, N. Y.	85% of Dunkirk-New York	92% of Erie, Pa.-New York, N. Y.	92% of North East, Pa.-New York, N. Y.	92% of Oil City, Pa., New York, N. Y.	100% of Clarion, Pa., New York, N. Y.[1]	100% of Waterson, Pa., New York, N. Y.	100% of Holden, Pa., New York, N. Y.[1]
Utica, N. Y.	80% of Dunkirk-New York	80% of Erie, Pa.-New York, N. Y.	80% of North East, Pa.-New York, N. Y.	85% of Oil City, Pa., New York, N. Y.	Arbitrary rates 56.5 50 42.5 30 25.5 21	Arbitrary rates	Arbitrary rates
Syracuse, N. Y.	75% of Dunkirk-New York	75% of Erie, Pa.-New York, N. Y.	75% of North East, Pa.-New York, N. Y.	78% of Oil City, Pa., New York, N. Y.	Arbitrary rates	Arbitrary rates	Arbitrary rates
Rochester, N. Y.	[4]55% of Dunkirk-New York	62% of Erie-New York, N. Y.[5]	62% of North East, Pa.-New York, N. Y.[5]	4 3 2 2 1.7 1.4 higher than to Buffalo	Arbitrary rates	Arbitrary rates	Arbitrary rates
Emporium, Pa.	[4]60% of Dunkirk-New York	[6]62% of Erie-New York, N. Y.[5]	62% of North East, Pa.-New York, N. Y.[5]	4 3 2 2 1.7 1.4 higher than to Buffalo	Arbitrary rates	Arbitrary rates	Arbitrary rates

[1] When routed via B. & O. R. R. or Wn. Md. Ry. the scale is as follows:
Classes. 1 2 R25 3 R26 R28 4 5 6
Rates ..50.4 43.4 36.9 32.9 26.3 26.1 22.5 18.9 15.5
[2] Except via B. & O. R. R. or Wn. Md. Ry.
[3] When routed via B. & O. R. R. or Wn. Md. Ry. the scale is as follows:
Classes.. 1 2 R25 3 R26 R28 4 5 6
Rates ...49.4 42.4 36 31.9 25.5 25.1 21.5 17.9 14.5
[4] When delivery is made via B. & O. or Wn. Md. Ry.
[5] But not less than 4-3-2-2-1-1 above rates from same points to Buffalo, N. Y., unless the addition of such arbitraries makes higher rates from origin points than from points beyond (West) or higher rates to Rochester, etc., than to points east, in which event the arbitraries shall be reduced to such an extent as not to cause higher rates from or to such intermediate points than from or to points beyond.
[6] 62% works on Classes 1-2-5-6. Arbitrary on Classes 3-4.

CHAPTER XVI

ALL-RAIL RATES EASTBOUND—Continued

SPECIFIC COMMODITY ADJUSTMENT—Continued

(a) Adjustment from the 60 Per Cent Group

From Table 22 it will be observed that under the bases for rate construction as concerned with the 60 per cent group, varying percentages are indicated to apply therefrom. This is occasioned by the fact that via some of the more indirect routes and from some of the more distantly located points in the groups exceptions have been taken from the use of the lowest adjustment of rates applying therefrom and via such routes and from such points a somewhat higher basis has been established.

It is not desirable in a treatise of this character to exemplify the many specific adjustments that are established by the carriers from points in this group. One may be taken as representative of the others.

For this purpose, the author has selected stations lying west of Buffalo to Erie, Pa., inclusive, on the line of the New York Central Railroad, formerly the Lake Shore & Michigan Southern Railroad, also the division taking in Oil City, Pa., and stations on the Lake Erie, Franklin & Clarion Railroad. The stations on the latter line are assigned to the Clarion, Pa., group, the Waterson, Pa., group, and the Holden, Pa., group.

The subdivision of this group, in so far as this par-

ticular territory is concerned, takes among others the following stations, which are the most important:

STATION	GROUP	STATION	GROUP
Brocton, N. Y.	1	Irvineton, Pa.	2
Butler, Pa.	2	Jamestown, N. Y.	1
Clarion, Pa.	5	Mayville, N. Y.	1
Corry, Pa.	2	Meadville, Pa.	4
Dayton, N. Y.	4	North East, Pa.	3
Dunkirk, N. Y.	1	Oil City, Pa.	4
Erie, Pa.	2	Orient, Pa.	2
Falconer Junction	1	Titusville, Pa.	4
Franklin, Pa.	4	Union City, Pa.	2
Holden, Pa.	7	Waterson, Pa.	6
Westfield, N. Y.	1		

In Table 28 is set forth the current bases applied in establishing the rates from points in this subdivision to the principal eastern seaboard and interior base points.

In the application of these formulas it is necessary that the rates from the various base points to New York be kept in mind, as the rates 'to other eastern destinations are made with respect thereto. The first item of the table, for example, indicates that the rates to Boston are (in the case of each point of origin) the same differentials over New York rates. The rates from Dunkirk to Boston would be made by first taking 60 per cent of the Chicago-New York rates, obtaining the following:

Classes	1	2	3	4	5	6
Rates	54	47.5	36	25	21.5	18

to which the arbitraries are added, resulting in the following scale:

Classes	1	2	3	4	5	6
Rates	59	51.5	39	28	24	20

This does not mean that the rates from all points of origin to Boston are the same, for, under the formula for the construction of rates from the Clarion group, it will be found that the rates from Oil City to New York (which are made 60 per cent of the Chicago-New

York rates) are used and certain arbitraries are added
thereto; this results in the following scale:

Classes	1	2	3	4	5	6
Rates	61.5	55	43.5	31	27	22

The addition of the Boston arbitraries makes the scale
from Clarion to that point as follows:

Classes	1	2	3	4	5	6
Rates	66.5	59	46.5	34	29.5	24

To Rockland, Me., and Stanstead, Que., the same
minimum rates are observed as from other percentage
groups, namely, the rates from 71 per cent points to
Boston are held as minima to Rockland, and the rates
from 78 per cent points to Boston are applied to
Stanstead.

*Philadelphia, Pa., Baltimore, Md., and Points Basing
Thereon.*—In each instance, Philadelphia and Baltimore
are conceded differentials under such rates as are estab-
lished to New York. These differentials, however, are
not always the same, as will be observed by comparing
those applying in connection with Dunkirk and North
East, Pa., where Baltimore takes the same differentials
as Philadelphia, these stations thus being put on a
parity in so far as transportation rates from these
points are concerned. Note should be made of the
exception of the route via the Baltimore & Ohio Rail-
road or the Western Maryland Railway. This route
requires a higher scale of rates, as is shown in the
tables.

To Albany and Points Basing Thereon.—In construct-
ing these and the rates to interior base points subse-
quently discussed, the application of the double per-
centage is involved, as follows: (1) the ascertainment of
the rate to New York and (2) the application of the
authorized percentage of the New York rate indicated

in the table. These percentages vary, as will be noted;
that obtaining in the Dunkirk, N. Y., adjustment is 85
per cent, that in the Erie, Pa., adjustment 92 per cent,
and that in the Clarion, Pa., adjustment 100 per cent.

As an example, were it desired to construct the rates
from Erie, Pa., to Albany, it would be necessary in the
first instance to construct the rates from Erie, Pa., to
New York. Item 2 of Table 28 indicates that these rates
are made on the basis of 60 per cent of the Chicago-New
York rates which are as follows:

Classes	1	2	3	4	5	6
Rates	54	47.5	36	25	21.5	18

and 92 per cent of these figures, would produce the
following:

Classes	1	2	3	4	5	6
Rates	49.5	43.5	33	25	20	16.5

These are the rates currently in effect from Erie and
Erie rate points to Albany and Albany rate points.

From Clarion, Waterson, and Holden, the rates to
Albany are made the same as the rates obtaining from
those points of origin to New York.

To Syracuse and Points Basing Thereon.—So far as
main line groups are concerned, the rates to Syracuse
are made under the same principle as employed in the
construction of rates to Albany, the percentage
employed being somewhat less than that used in making
rates to Albany.

From Clarion, Waterson, and Holden, there is no fixed
basis to be used in establishing rates. Such rates as are
published are made by the individual lines, observing as
maximum the rates applying from and to more distant
groups.

*To Rochester, N. Y., Emporium, Pa., and Points Basing
Thereon.*—In this case, as in the adjustment from per-

centage groups west, the rates from the 60 per cent
group are established on either a percentage basis or on
an arbitrary basis, using the rate to Buffalo as a factor,
retaining the highest rate.

Taking Erie, Pa., as a representative point of origin,
the rates to New York which are 60 per cent of the Chi-
cago-New York rates, are as follows:

Classes	1	2	3	4	5	6
Rates	54	47.5	36	25	21.5	18

and 62 per cent of this scale would be as follows:

Classes	1	2	3	4	5	6
Rates	33.5	29.5	22.5	20	13.5	11

The rates from Erie to Buffalo are as follows:

Classes	1	2	3	4	5	6
Rates	33.5	28.5	22.5	17	11.5	9.5

The addition of the arbitraries indicated in the basis,
results in the following combination:

Classes	1	2	3	4	5	6
Rates	37.5	31.5	24.5	19	12.5	10.5

It will be observed that on the Buffalo combination,
Classes 2, 4, 5, and 6, are less than under the percentage
adjustment. For Class 3, however, rates based on the
combination are higher. The result is that a compromise
scale is effected by retaining the highest rates obtained
under the respective formulas, which produces the follow-
ing scale to be applied from Erie, Pa., to the Rochester
group:

Classes	1	2	3	4	5	6
Rates	33.5	31.5	24.5	20	13.5	11

In some cases, the scale of class rates to Buffalo, used
as a factor in constructing the rates to Rochester, is not
the same as the scale of class rates which applies from

point of origin to Buffalo, proper. For example, the class rates applicable from North East, Pa., to Buffalo, proper, are as follows:

Classes	1	2	3	4	5	6
Rates	31.5	27	21	16	11	9

At the same time, and in the tariff which contains the class rates published to Rochester, N. Y., a different scale of rates is named to Buffalo, for example, as to North East, the scale is that shown in Table 29. The application of this latter scale is taken care of in the tariff by a note which provides that it is to be used only for basing purposes in connection with points taking arbitraries higher (as is the case with Rochester).

For the purpose of illustration, to enable those who so desire to work out the individual rates to the various points of origin, current rates published from several of the base points to various eastern destinations have been reproduced in Table 29.

TABLE 29

CONSTRUCTION OF RATES FROM 60 PER CENT TERRITORY TO EASTERN BASING POINTS

FROM	To	RATES IN CENTS PER 100 POUNDS								
		Classes								
		1	2	R25	3	R26	R28	4	5	6
Group 1 Dunkirk, N. Y.	Boston, Mass.	59	51.5	44	39	31	32	28	24	20
	New York, N. Y..	54	47.5	40.5	36	29	29	25	21.5	18
	Philadelphia.Pa.¹ ⎫ Baltimore, Md.². ⎰	48	41.5	33.5	34	27	27	23	19.5	16
	Albany, N. Y.....	46	41.5	34.5	33	24.5	24.5	21.5	18.5	15.5
	Utica, N. Y......	43	38	32	29	23	23	20	17	16
	Syracuse, N. Y....	40.5	35.5	30.5	27	22	22	19	16	13.5
	Rochester, N. Y...	29.5	26	22	20	16	16	14	12	10
	Emporium, Pa....	32.5	28.5	24.5	21.5	17.5	17.5	15	13	11
	Cumberland, Md..	53	46.5	39.5	35	28	28	24	20.5	17
	Pittsburgh, Pa....	48.5	41	35	32.5	26	27.5	24.5	17	13.5
	Buffalo, N. Y.....	26.5	22.5	19	18	14.5	15	13.5	9.5	7.5

TABLE 29—Continued

CONSTRUCTION OF RATES FROM 60 PER CENT TERRITORY TO EASTERN BASING POINTS

FROM	To	RATES IN CENTS PER 100 POUNDS								
		Classes								
		1	2	R25	3	R26	R28	4	5	6
Group 2 Erie, Pa.	Boston, Mass.	59	51.5	44	39	31	32	28	24	20
	New York, N. Y..	54	47.5	40.5	36	29	29	25	21.5	18
	Philadelphia, Pa. } Baltimore, Md.[34] }	48	41.5	33.5	34	27	27	23	19.5	16
	Albany, N. Y.....	49.5	43.5	37.5	33	26.5	26.5	25	20	16.5
	Utica, N. Y......	43	38	32	29	23	23	20	17	16
	Syracuse, N. Y....	40.5	35.5	30.5	27	22	22	19	16	13.5
	Rochester, N. Y. } Emporium, Pa.. }	33.5	29.5	25	22.5	18	18	15.5	13.5	11
	Cumberland, Md...	46	39.5	32.5	33	26.5	26	22	18.5	15
	Pittsburgh, Pa. ...	45	38.5	32.5	30	24	25	22.5	16	12.5
	Buffalo, N. Y....	33.5	28.5	24	22.5	18	19	17	11.5	9.5
Group 3 North East, Pa.	Boston, Mass.	59	51.5	44	39	31	32	28	24	20
	New York, N. Y..	54	47.5	40.5	36	29	29	25	21.5	18
	Philadelphia,Pa.[1] } Baltimore, Md.[3] }	48	41.5	35.5	34	27	27	23	19.5	16
	Albany, N. Y.....	49.5	43.5	37.5	33	26.5	26.5	25	20	16.5
	Utica, N. Y......	43	38	32	29	23	23	20	17	16
	Syracuse, N. Y...	40.5	35.5	30.5	27	20	20	19	16	12.5
	Rochester, N. Y. } Emporium, Pa.. }	33.5	29.5	25	22.5	18	18	15.5	13.5	11
	Cumberland, Md...	53	46.5	39.5	35	28	28	24	20.5	17
	Pittsburgh, Pa. ...	48.5	41	35	32.5	26	27.5	24.5	17	13.5
	Buffalo, N. Y.....	31.5	27	19	21	14.5	15	16	11	9
Group 4 Oil City, Pa.	Boston, Mass.	59	51.5	44	39	31	32	28	24	20
	New York, N. Y..	54	47.5	40.5	36	29	29	25	21.5	18
	Philadelphia, Pa..	48	41.5	35.5	34	27	27	23	19.5	16
	Baltimore, Md. ...	46	39.5	33.5	31	26.5	26	20	16.5	16
	Albany, N. Y.....	49.5	43.5	37.5	33	26.5	26.5	25	20	16.5
	Utica, N. Y......	46	40.5	34.5	30.5	24.5	24.5	21	18.5	15.5
	Syracuse, N. Y....	42	37	31.5	28	22.5	22.5	19.5	17	14
	Rochester, N. Y. } Emporium, Pa.. }	39	33	28	26	21	22	19.5	13.5	11
	Cumberland, Md...	46	39.5	33.5	33	26.5	26	22	18.5	15
	Pittsburgh, Pa.. } Buffalo, N. Y.. }	45	38.5	32.5	30	24	25	22.5	16	12.5
Group 5 Clarion, Pa.	Boston, Mass.	66.5	59	50	46.5	37	38	34	29.5	24
	New York, N. Y.	61.5	55	46.5	43.5	34	35.5	31	27	22
	Philadelphia, Pa...	55.5	49	41.5	41.5	33.5	33.5	29	25	20
	Baltimore, Md. ...	53.5	47	40	40.5	32.5	32.5	28	24	19
	Albany, N. Y.....	61.5	55	46.5	43.5	34	35.5	31	27	22
	Utica, N. Y......	56.5	60	44	42.5	34	34.5	30	25.5	21
	Syracuse, N. Y...	51	45	39.5	25.5	29	26	22.5	19	
	Rochester, N. Y. } Emporium, Pa.. }	52	46	40.5	36.5	29.5	30	26.5	23	19.5
	Cumberland, Md...	54.5	48	41	41.5	33	33.5	29	24.5	20
	Pittsburgh, Pa. ...	43.5	37.5	32	28	22.5	22.5	19.5	17	14.5
	Buffalo, N. Y.....	51	44.5	38	35	28	28.5	25	21	17.5

TABLE 29—Continued

Construction of Rates from 60 Per Cent Territory to Eastern Basing Points

FROM	To	RATES IN CENTS PER 100 POUNDS								
		Classes								
		1	2	R25	3	R26	R28	4	5	6
Group 6 Waterson, Pa.	Boston, Mass.	66.5	59	50	46	37	38	34	28.5	23
	New York, N. Y..	61.5	55	46.5	43	34.5	35	31	26	21
	Philadelphia, Pa..	55.5	49	41.5	41	33	33	29	24	19
	Baltimore, Md. ...	53.5	47	40	40	32	32	28	23	18
	Albany, N. Y.....	61.5	55	46	43	34.5	35	31	26	21
	Utica, N. Y......	55.5	49	42.5	41	33	33	29	24	19
	Syracuse, N. Y...	52	46	40	36	29	29.5	26	22.5	18
	Rochester, N. Y. ⎫ Emporium, Pa.. ⎬	52	46	40	36	29	29.5	26	22.5	18
	Cumberland, Md...	54.5	48	41	41	33	33	28.5	24	18.5
	Pittsburgh, Pa. ...	43.5	37.5	32	28	22.5	22.5	19.5	17	14.5
	Buffalo, N. Y.....	51	44.5	38	34.5	27.5	28	24.5	20.5	16
Group 7 Holden, Pa.	Boston, Mass.	65.5	58	49.5	45	36	37.5	33.5	28	23
	New York, N. Y...	60.5	54	46	42	35.5	34.5	30.5	25.5	21
	Philadelphia, Pa..	54.5	48	41	40	32	32.5	28.5	23.5	23
	Baltimore, Md. ...	52.5	46	39	39	31	31.5	27.5	22.5	18
	Albany, N. Y.....	60.5	54	47	42	35.5	35	30.5	25.5	21
	Utica, N. Y......	55	48.5	42.5	41	33	33.5	29	24.5	19.5
	Syracuse, N. Y...	50	44	38.5	34.5	28	25	21	18	28
	Rochester, N. Y. ⎫ Emporium, Pa... ⎬	50.5	44.5	39	35	28.5	29	25.5	22	18
	Cumberland, Md...	53	46.5	39.5	40	32	32	28	23.5	18.5
	Pittsburgh, Pa. ...	43.5	37.5	32	28	22.5	22.5	19.5	17	14.5
	Buffalo, N. Y.....	49.5	43	36.5	33.5	27	27.5	24	20	16

1 Via B. & O. R. R. and Wn. Md. Ry., rates are as follows:

Classes	1	2	R25	3	R26	R28	4	5	6
Rates	58	50	42.5	38	30.5	30	26	22	18

2 Via B. & O. R. R. and Wn. Md. Ry., rates are as follows:

Classes	1	2	R25	3	R26	R28	4	5	6
Rates	57	49	42	37	30	29	25	20	17

3 These rates do not apply in connection with B. & O. R. R. or Wn. Md. Ry.

4 Via B. & O. R. R. and Wn. Md. Ry., rates are as follows:

Classes	1	2	R25	3	R26	R28	4	5	6
Rates	45	38	32	32	26	25.5	22	18	15

CHAPTER XVII

SPECIFIC COMMODITY ADJUSTMENTS—Continued

(a) Live Stock and Dressed Meat Rates

In this adjustment we have an example in which is shown the competition of commodities since any considerable increase in the rates or bases for rates on dressed meat not followed by a corresponding increase with respect to live stock rates, in all probability, would impair the meat packing industry at a given point by favoring the shipment of animals on the hoof or vice versa.

Consequently, an adjustment has to be built to enable abattoirs and packing houses at Indianapolis, Ind., Cincinnati, Ohio, and other eastern points to draw the cattle in from western ranges and to slaughter and distribute their products in competition with the great industries in this line at Chicago, St. Louis, and Missouri River points.

The transportation of live stock involves many considerations that do not have to be taken into account in the transportation of other freight. In the first place, special equipment is required for the accommodation of the stock which, as a rule, moves in one direction necessitating the return of the empty car to the loading point. In the second place, a very expeditious service is essential in order to enable the stock to be transported to market and disposed of with as little delay as pos-

207

sible. In the third place, free transportation is generally given to one or more attendants to look after, water, and feed such stock while in transit, and frequently return transportation is given the attendant as well. In the fourth place, the federal requirement that stock is not to be confined in cars for periods in excess of 28 hours, frequently necessitates the stopping of the stock in transit, short of the ultimate destination, for unloading, rest and water, which entails more or less expense. Most of these factors are eliminated in the transportation of dressed meats and meat products with the exception of an expedited service.

Concurrent with the general advance in rates in Official Classification Territory, changes were suggested in the basis obtaining heretofore for the construction of rates on live stock and dressed meats, and in the following pages the one adopted is set forth and, having been approved by the Commission, bids fair to stand for some time to come. The rates on dressed meats and packing-house products from Chicago to New York at the present time are shown in Table 30. These rates apply from all points in the 100 per cent group to New York and New York rate points and are used as a basing factor in establishing rates from other percentage groups to points in Trunk Line and New England territories.

As was the case with grain products, the list of packing-house products is quite diversified and includes many items, and as such, in several publications are included dried-chipped beef, boneless chicken, canned corned beef, extract of beef, lard, oleo, pigs feet (canned or pickled), roast beef canned, sausages of various kinds, soups, tallow, roast chicken and roast turkey

canned, also various dried salted meats and sweet pickled meats and in general, except where specific commodity rates are authorized, they are on a basis of the existing fifth-class rate, as provided in the current Official Classification.

TABLE 30

Rates on Dressed Meats, Packing-House Products, and Live Stock from Chicago to New York as Bases for Rates from Percentage Points on Map 4 to Points in Trunk Line and New England Territories

Commodities in Carloads	Minimum Weights	Rates (Notes 2 and 3)
Dressed beef, hogs, and sheep	21,000 lbs.	55
Live stock, viz:		
Cattle	21,000 lbs.	38
Calves, double-deck	21,000 "	38
Calves and hogs, single-deck	17,000 "	43.5
Goats and sheep, single-deck	14,000 "	47.5
Goats, double-deck	18,000 "	38
Sheep and lambs, double-deck	18,000 "	38
Hogs, double-deck	22,000 "	38
Horses and mules	(^{1})	74

[1] As per Official Classification or current tariffs of exceptions thereto.
[2] Except for rates on horses and mules, the following rule (which constitutes an exception to the general rule) will govern the disposition of fractions in computing rates: When a fraction is .25 or less than .25 of a cent, omit it; when more than .25 and .75 or less, assume it to be ½ cent; and when more than .75, assume it to be 1 cent.
For horses and mules, fractions will be disposed of as follows: When a fraction is less than .50 of a mill, omit it; when .50 of a mill, or over, increase to 1 mill.
[3] From points in Illinois, Indiana, Kentucky, and prorating points on the Mississippi River taking higher than 100 per cent of Chicago-to-New York City rates, to all points east of the western termini of eastern trunk lines, including Virginia points, rates will be made by adding the following differentials to the rates from Chicago:

From	Differentials above Chicago rates In cents per 100 lbs.
Points taking over 100% to and including 108%	2
" " " 108% " " " 110%	3
" " " 110% " " " 112%	4
" " " 112% " " " 117%	5
" " " 117% " but excluding 120%	7
" " " 120%	8

There is no definite relationship at this time existing between live stock, dressed meat, and packing-house-products rates. It has been felt by the traffic officials and has been reiterated from time to time by the Commission that the rates on these commodities should bear a definite relationship to each other but the basis has not yet been worked out.

As an exception to the general adjustment of rates applicable on domestic traffic, it will be observed from Table 31 that to Boston, Mass., the rates are made the same as the New York rates.

From percentage groups lying east of the 100 per cent group, the rates are made on the authorized percentages of the New York-Chicago rates applicable from such groups—that is, the rates from Cincinnati, Ohio (an 87 per cent point), would be 87 per cent of the rates applying from Chicago, Ill., indicated in Table 30.

From percentage points west of the 100 per cent group to New York, the rates are made by the addition of arbitraries to the Chicago-New York rates, these arbitraries being indicated in the foregoing table. For example, the rates on cattle from percentage points west of the 100 per cent group to New York are 38 cents per 100 pounds as shown in Table 30, plus the arbitrary shown in footnote 3 for the respective groups lying west of the 100 per cent group as indicated on Map 4, *Atlas of Railway Traffic Maps.*

The rate on dressed beef from Peoria, Ill., a 110 per cent point, is 55 cents plus 3 cents or 58 cents. The rate on dressed beef from St. Louis, Mo., a 117 per cent point, is 60 cents, which is obtained by adding the 5 cents arbitrary indicated in footnote 3, Table 30, for the 117 per cent group, to the Chicago basing rate of 55 cents.

In the application of this adjustment, as in that for grain and grain products, the special mode of rate con-

struction, while differing in some respects, does not result in rates that are radical departures from those that would obtain under the application of the general percentage principle. The rate on sheep from Chicago to New York is 38 cents, and from St. Louis the rate is 43 cents, while 117 per cent of 38 cents yields 44.5 cents.

With reference to fractions, it is well to state that the rule employed in the live stock and dressed meat adjustment, is that when the fraction is .25 of a cent, omit it, when more than .25 and to and including .75, assume it to be ½ cent, and when more than .75, assume it to be 1 cent.

In justifying the higher rates on dressed meats and packing-house products than those applying on the animals on the hoof, it is well to call attention to the fact that while the risk of loss to the carrier by reason of damage to the stock or delay in transit, has been eliminated, the value of the same quantity has been enhanced a number of times, as pound for pound the prices on dressed meat as contrasted with the prices on live animals, are in many cases as three is to one.

To Other Eastern Base Points

In the following table are enumerated the various eastern base points and the formula for the construction of rates on live stock and dressed meat from percentage territory to other eastern groups; these rates are predicated on the rates that are established from Chicago to New York. Consequently, any change in the base rates from Chicago to New York is reflected by corresponding change in the rates to points based thereon.

TABLE 31

Basis for Rates on Live Stock, Dressed Meats, Packing-House Products, Provisions, etc., from Percentage Territory (Map 4) to Eastern Groups (Map 10)

Item	To Eastern Groups	From Percentage Groups	Basis for Rates in Carloads
1	Boston, Mass.	60-120	Same as to New York from same points
2	Rockland, Me.	60-120	Same as to Boston, but not less than from Cleveland, Ohio, to Boston
3	Stanstead, Que.	60-120	Same as to Boston, but not less than from Toledo, Ohio, to Boston
4	Philadelphia, Pa.	60-120	Two cents less than from same points to New York
5	Baltimore, Md.	60-120	Three cents less than from same points to New York
6	Albany, N. Y.	60-120	Percentages of New York rates as shown in item 7, Table 22, for class rates
7	Utica, N. Y.	60-120	Percentages of New York rates as shown in item 8, Table 22, for class rates
8	Syracuse, N. Y.	60-120	Percentages of New York rates as shown in item 9, Table 22.
9	Rochester-Mt. Morris, N. Y.	66½-78	Add the following arbitraries, in cents per 100 pounds to Buffalo rates: Cattle, calves, hogs, and sheep, 2; meats, packing house products, and provisions, 2; and horses and mules, 3[1] [2]
		79-120	Same basis as for class rates (Table 22)
10	Pittsburgh-Buffalo	60-120	Basis given on page 254 of this treatise
11	Grafton, W. Va.	60-120	Cents over Pittsburgh rates: Cattle and hogs, 2; dressed meats, calves, and sheep, 3; and horses or mules, 4
12	Cumberland, Md.	60	Specific rates as per tariffs
		66½-120	Same percentages of rates to New York as apply on class rates (Table 22, item 11)

TABLE 31—Continued

BASIS FOR RATES ON LIVE STOCK, DRESSED MEATS, PACKING-HOUSE
PRODUCTS, PROVISIONS, ETC., FROM PERCENTAGE TERRITORY
(MAP 4) TO EASTERN GROUPS (MAP 10)

ITEM	TO EASTERN GROUPS	FROM PER-CENTAGE GROUPS	BASIS FOR RATES IN CARLOADS
13	Belington-Elkins, W. Va.	60-120	Cumberland rates but not less than from Columbus, Ohio, to Cumberland, subject to minimum rate of 10.8 cents
14	Virginia Cities	60-76	On cattle and other live stock (except horses and mules) rates will be made 3 cents less than applicable to New York on basis of 76 per cent of Chicago-to-New York rates; on horses and mules, rates will not be less than those applicable from Columbus, Ohio, to Baltimore, Md., on same traffic
		77-87	On cattle and other live stock (except horses and mules) rates will be made 3 cents less than applicable to New York on basis of 87 per cent of Chicago-to-New York rates; on horses and mules, the rates to Baltimore, Md., will govern as minima, except that from points taking higher than 77 per cent of Chicago-to-New York rates which are located in the territory on and east of the N. and W. Ry., Columbus to Portsmouth, Ohio, and south of the P. C. C. & St. L. Ry., Columbus to and including Steubenville the rates will be not less than that applicable from Columbus, Ohio, to Baltimore, Md., on the same traffic
		88-120	Baltimore rates (subject to basis set forth in footnote 3 of Table 30)

[1]Should the addition of these arbitraries make higher rates from points taking 66½ per cent to 78 per cent of rates from Chicago to New York, to Rochester, etc., than apply from points farther distant, or should it make higher rates to Rochester, etc., than apply to points east of Rochester, the arbitraries shall be reduced to such an extent as not to cause higher rates from 66½ per cent to 78 per cent points to Rochester, etc., than from or to points beyond.

[2]Under the foregoing, the rates to Rochester, etc., are not to be less than rates determined by using bases shown in item 10 of Table 22.

It is hardly necessary to explain the basis for each item, as the adjustment does not differ materially from that obtaining in the case of the class rates. For this

purpose it will be sufficient to call attention to the
agreements with the general basis for the construction
of class rates and a few exceptions thereto.

Rates from percentage territory to Boston, Mass.,
Rockland, Me., and Stanstead, Que., are on a different
basis than that obtaining in connection with the class-rate
and general commodity-rate adjustment. On the classi-
fied and general commodity traffic, these groups take
arbitraries over the New York rates, while on live stock
and dressed meats the same rates apply as to New
York with certain minor exceptions. The rates to Phila-
delphia and Baltimore are the customary differentials
less than the rate currently in effect to New York,
while to Albany, Utica, Syracuse, and Rochester, the
same percentages of the New York rates are applied as
obtain in connection with the class-rate adjustment.

CHAPTER XVIII

ALL-RAIL RATES EASTBOUND—Continued

Specific Commodity Adjustments—Continued

(a) Rates on Iron and Steel Articles

To enumerate the many articles of iron and steel manufacture which are classified fourth, fifth, and sixth class in the current Official Classification, would involve a list far beyond the scope of this treatise. It does not of course comprise such articles as are manufactured from iron and steel which have a very high value as tools, utensils, implements, etc., but on the contrary it takes in the more crude and rough items of production. A few such representative commodities, selected at random, are reproduced in the following:

Angles, Iron	Ferrosilicon	Poles, Electric Wire
Axles, Car	Frogs, Railroad	Rods
Bands, Hay	Iron, Band	Shoes, Horse, Mule, or Ox
Beams, Brake	Iron, Bar	Spiegeleisen
Beams, Iron	Iron, Chain	Tubing
Bolsters, Car	Iron, Sheet	Weights, Bed or Elevator
Castings	Nails	Wire
Chains	Nuts	
Culverts	Pipe, Cast, Sheet, or	
Fastenings, Rail	Wrought	
Ferromanganese	Plate, Boiler	

In connection with the adjustment of rates employed with respect to grain and grain products and live stock and dressed meat, it should be noted that they are generally authorized and applied throughout the territory, both as to points of origin, on the one hand, and

as to points of destination, on the other, since these commodities may reasonably be inferred to move from and to any of the points therein.

As there are facilities for the working of iron at comparatively few points throughout the territory, and as the industry has, to a large extent, centered in eastern Ohio, western Pennsylvania, and New York the special iron and steel adjustments are confined in their application to these groups.

(b) Grouping of Territory

The territory above mentioned has been roughly divided into a number of groups, and the principal point therein has usually been the name assigned to the group.

The Pittsburgh group takes in some 400 points in western Pennsylvania adjacent to Pittsburgh.

The Wheeling group includes some 40 stations near Wheeling in West Virginia and Ohio.

Cleveland rates apply from some 120 points in eastern Ohio near Cleveland.

The Youngstown group takes in some 160 stations in eastern Ohio and western Pennsylvania not included in either the Cleveland or Pittsburgh groups.

The Marietta-Zanesville group includes points mentioned and some 75 additional points in eastern Ohio not embraced in any of the foregoing groups.

The Dunkirk group applies from Dunkirk and relative points, the southwestern part of New York, and the extreme northwestern part of Pennsylvania.

The rates on manufactured articles of iron and steel, also pig iron, iron and steel billetts, blooms, etc., are generally expressed, in so far as the manufactured articles are concerned, at rates in cents per 100 pounds, while the heavier commodities such as pig iron, iron and steel billets and blooms are quoted at rates, in

cents per ton at 2000 pounds or gross 2240 pounds, as
indicated.

The rates on manufactured articles of iron and steel,
also pig iron, iron and steel billets, blooms, etc., from
percentage points shown on Map 4 to the New York
group shown on Map 10 are based on the rates from
Chicago to New York, except from the more important
groups named above, which adjustments will subsequently
be taken up.

The rates currently in effect from Chicago to New
York and used as basing factors are as follows:

```
Pig iron, mill cinder scale and ore
    cinder  ......................$5.20 per gross ton
Ingot molds  ....................  5.20  "   net   "
Billets, blooms, scrap iron, old rails,
    old car wheels, chain iron, tin plate,
    rods, etc.  .................  5.30  "   gross "
Pig molds  ......................  5.20  "   net   "
```

The rates from percentage territory, other than the
groups above mentioned, are constructed by the appli-
cation of the percentages employed in connection with
the general commodity-rate adjustment, both as to points
of origin, other than Chicago on the one hand, and to
points of destination, other than New York, on the other
hand.

From the special groups, the rates are constructed
under the application of an arbitrary basis, namely,
from the Pittsburgh-Wheeling groups, the rates to New
York are made the same as from Buffalo, with the
exception that on articles taking fourth-class, fifth-class,
and sixth-class rates, the rates are made 60 per cent of
those obtaining from Chicago to New York.

From the Cleveland group, the rates are 3 cents per
100 pounds or 60 cents per ton higher than from
Pittsburgh.

From the Youngstown group to the New York group,

the rates are 2 cents per 100 pounds or 40 cents per ton higher than from Pittsburgh.

From the Marietta-Zanesville group to the New York group, the rates are $3\frac{1}{2}$ cents per 100 pounds or 70 cents per ton higher than from Pittsburgh.

The rates from Dunkirk are the Pittsburgh rates, not to exceed in any event the rates that may be established from Youngstown. This was necessitated by the application of the long-and-short-haul clause.

Under the foregoing, in computing the rates on articles of iron and steel rated per gross ton from percentage points, except those mentioned above, the following method would be employed:

The base rate from Chicago to New York is established, we will say, on a per gross ton basis, and the rate for 100 pounds is obtained by using the weight of 2000 pounds per ton as a factor and dividing the rate per ton by 20 to obtain the rate per 100 pounds, retaining the actual fractions. With this rate obtained, the rates from percentage points other than the 100 per cent group are secured by applying the proper percentages shown on Map 4, *Atlas of Railway Traffic Maps*.

A basing rate of $5.30 per gross ton on billets named from Chicago to New York is equivalent to a rate of 26.5 cents per 100 pounds. The rates from Defiance, Ohio, to New York is 85 per cent of the 26.5 cent rate from Chicago to New York which makes the rate from Defiance 22.5 cents or $4.50 per gross ton.

To Eastern Base Points Other Than New York.—In the following table there has been reproduced the current basis for the establishment of rates on iron and steel articles and articles manufactured therefrom, from a few of the representative groups. These may be taken as typical of those applying from other groups and serve, in a measure, to illustrate the general adjustment that obtains with respect to this traffic.

TABLE 32

Basis[1] for Rates in Carloads on Iron and Steel Articles from Pittsburgh, Cleveland, Youngstown, Etc., to Eastern Groups.

From / To	PITTSBURGH-WHEELING GROUP — In cents per 100 pounds (Iron and steel articles classified) Classes 4 5 6	PITTSBURGH-WHEELING GROUP — In cents per ton (Billets, pig iron, etc.)	CLEVELAND GROUP — In cents per 100 pounds (Iron and steel articles classified) Classes 4 5 6	CLEVELAND GROUP — In cents per ton (Billets, pig iron, etc.)	YOUNGSTOWN GROUP — In cents per 100 pounds (Iron and steel articles classified) Classes 4 5 6	YOUNGSTOWN GROUP — In cents per ton (Billets, pig iron, etc.)	MARIETTA-ZANESVILLE GROUP — In cents per 100 pounds (Iron and steel articles classified) Classes 4 5 6	MARIETTA-ZANESVILLE GROUP — In cents per ton (Billets, pig iron, etc.)
Albany, N. Y.	100% of rates from Pittsburgh to New York	from New York	2 2 higher than Pittsburgh	30 Pittsburgh	1 1 higher than Pittsburgh	20 Pittsburgh	3 3 3 higher than Pittsburgh	60 Pittsburgh
Baltimore, Md.	3 3 3 less than to New York	30 New York	3 3 higher than Pittsburgh	60 Pittsburgh	2 2 higher than Pittsburgh	40 Pittsburgh	3½ 3½ 3½ higher than Pittsburgh	70 Pittsburgh
Boston, Mass. Rockland, Me. Stanstead, Que.	3 2½ 2 higher than New York rates	40 New York	3 3 higher than Pittsburgh	60 Pittsburgh	2 2 higher than Pittsburgh	40 Pittsburgh	3½ 3½ higher than Pittsburgh	70 Pittsburgh
New York, N. Y.	60% of Chicago to New York rates	Buffalo rates	3 3 higher than Pittsburgh	60 Pittsburgh	2 2 higher than Pittsburgh	40 Pittsburgh	3½ 3½ higher than Pittsburgh	70 Pittsburgh
Philadelphia, Pa.	2 2 2 less than to New York	20 New York	3 3 higher than Pittsburgh	60 Pittsburgh	2 2 higher than Pittsburgh	40 Pittsburgh	3½ 3½ higher than Pittsburgh	70 Pittsburgh

TABLE 32—Continued

BASIS FOR RATES IN CARLOADS ON IRON AND STEEL ARTICLES FROM PITTSBURGH, CLEVELAND, YOUNGSTOWN, ETC., TO EASTERN GROUPS

FROM / To	Pittsburgh-Wheeling Group — In cents per 100 pounds, Iron and steel articles classified (Classes 4 5 6)	Pittsburgh-Wheeling Group — In cents per ton, Billets, pig iron, etc.	Cleveland Group — In cents per 100 pounds, Iron and steel articles classified (Classes 4 5 6)	Cleveland Group — In cents per ton, Billets, pig iron, etc.	Youngstown Group — In cents per 100 pounds, Iron and steel articles classified (Classes 4 5 6)	Youngstown Group — In cents per ton, Billets, pig iron, etc.	Marietta-Zanesville Group — In cents per 100 pounds, Iron and steel articles classified (Classes 4 5 6)	Marietta-Zanesville Group — In cents per ton, Billets, pig iron, etc.
Rochester, N.Y., Mt. Morris, N.Y.	72% of rates, burg to New York	72% Pitts-	Same as from burgh	Pitts-	$\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ less than Pittsburgh	10 Pitts burgh	3 2 2 higher than burgh	40 Pitts-
Syracuse, N.Y.	84% of rates, burgh to New	Pitts-York	Same as from burgh	Pitts-	3/10 4/10 5/10 Less than from Pittsburgh	Same as from Pitts-burgh	1 1 1 higher than burgh	20 Pitts-
Utica, N.Y.	92% of rates, burgh to New	Pitts-York	Same as from burgh	Pitts-	0 0 $\frac{1}{2}$ less than Pitts burgh	10 Pitts burgh	1 1 1 higher than burgh	20 Pitts-
Virginia Cities	Columbus, Ohio, to Baltimore, Md., rates	20 higher than New York	Same as from Pittsburgh	20 higher than Pitts-burgh	Same as from Pittsburgh	20 higher than Pitts-burgh	Same as from Pittsburgh	20 higher than Pitts-burgh
Punxsutawney, Pa.	Same as to Buffalo, N.Y.		Same as to Rochester		Same as to Rochester			

¹ Arbitraries are in cents per 100 pounds on classified traffic and per ton, net or gross, on billets, pig iron, etc.

This table shows the formula to be employed in making rates to certain eastern groups only. To such eastern groups as are not shown in this table, the general commodity adjustment applies from the special groups in percentage territory. However, the arbitraries over Pittsburgh rates, indicated therein, as applied to existing rates will indicate, in some cases, a disregard of this adjustment which is optional with the several carriers.

The base rate for groups in the eastern part of percentage territory to eastern groups is the rate from Pittsburgh to New York. The rates from Pittsburgh to New York are 60 per cent of those from Chicago to New York except on billets, pig iron and articles taking the same rate and articles in the special list of iron and steel articles. On the excepted articles, rates from Pittsburgh are the same as from Buffalo.

The rates from the Pittsburgh-Wheeling group are usually a certain percentage of the rates from Pittsburgh to New York. However, there are a number of exceptions to this general statement. From Cleveland, Youngstown, Marietta, and Zanesville, the rates are usually arbitraries over or under those from Pittsburgh. The details of this basis are set forth in the preceding table. In most items of the table, the rates to the eastern groups in question are either percentages of the rates from Pittsburgh to New York or arbitraries over the Pittsburgh rates.

On the application of the basis set forth in the table, representative rates from Cleveland and Youngstown, Ohio, on articles of iron and steel manufacture, classified fourth class in less than carloads, are as follows:

	CLEVELAND	YOUNGSTOWN
New York	28	27
Boston	31	30
Philadelphia	26	25
Albany	27	26

	CLEVELAND	YOUNGSTOWN
Utica	23	23
Syracuse	21	21
Rochester	18	17.5

The rate on new iron and steel rails which are rated per gross ton is as follows from Cleveland and from Youngstown:

	CLEVELAND	YOUNGSTOWN
New York	$3.70	$3.50
Boston	4.20	4.00
Philadelphia	3.60	3.30
Baltimore	3.50	3.30
Albany	3.50	3.40
Utica	2.90	2.80
Syracuse	2.70	2.70
Rochester	2.30	2.20

CHAPTER XIX

Ocean-and-Rail and Rail-and-Ocean Rates

(a) Eastbound Rates

In railroad phraseology the arrangement of the names of the agencies employed in these routes indicates the course of the movement. A "rail-and-ocean route" means a rail haul in the first instance, and then an ocean haul, whereas the reverse order is meant by the term "ocean-and-rail route."

This service was inaugurated by the Baltimore and Virginia Cities' lines, which are the Baltimore & Ohio Railroad, the Chesapeake & Ohio Railway, the Norfolk and Western Railway, and the Southern Railway, and designed to give them an entrance into Trunk Line and New England territories and to enable them to compete with the all-rail lines serving these territories.

The principal ocean carriers engaged in this traffic are the Clyde Steamship Company, Old Dominion Steamship Company, and the Merchants & Miners Transportation Company. These carriers collectively serve the ports of Boston, Providence, New York, Philadelphia, Baltimore, Norfolk, and Newport News.

Owing to the necessity of the transfer from cars to vessel, or from dock to vessel and to the subsequent discharge from vessel to cars or docks, the time in transit considerably exceeds that of the rail lines. As thereby the element of risk is also considerably increased, the route has its disadvantages as compared with the

standard all-rail route. In order to attract tonnage it is necessary for the water-and-rail routes to establish transportation charges which are less than those that obtain via the all-rail lines.

The question as to what is a proper scale of rates to be maintained by the ocean-and-rail routes has been a very vexatious problem confronting the traffic managers of the various organizations. Out of a series of rate wars, however, the present system has evolved. The all-rail lines, conceding to the demands of the rail-and-water lines agreed to the establishment of rates which should be on fixed figures, or differentials as they are called, to the extent that the rates by the water-and-rail routes might be established under the existing all-rail rates from and to the same points. Indeed, the lines are frequently designated as "differential routes" or "differential lines." The terms so used refer to routes or lines which, on account of a slightly inferior service, are conceded rates based on differentials under existing standard all-rail rates.

The basis for rates via rail-and-ocean lines from Central Freight Association Territory to certain north Atlantic ports and to interior eastern points taking the same rates is set forth in Table 33. All the differentials are shown in Table 14, which should be consulted in this connection.   TABLE 33

BASIS FOR RATES VIA RAIL AND OCEAN FROM CENTRAL FREIGHT ASSOCIATION POINTS TO NORTH ATLANTIC SEABOARD PORTS AND INTERIOR EASTERN POINTS

ITEM	TO POINTS SPECIFIED IN ITEMS	FROM PERCENTAGE POINTS	DIFFERENTIALS IN CENTS PER 100 POUNDS						REMARKS
			Classes						
			1	2	3	4	5	6	
1	To Boston[1] and Fall River, Mass., Providence, R. I., and New York via Baltimore and Philadelphia	60–76	3	$2\frac{1}{2}$	2	$1\frac{1}{2}$	1	1	Under all-rail rates
		77–119	8	6	4	3	2	2	Under all-rail rates[2]

TABLE 33—Continued

ITEM	To Points Specified in Items	From Per-centage Points	Differentials in Cents per 100 Pounds — Classes						Remarks
			1	2	3	4	5	6	
2	To all points speci- fied in the heading of the table via Virginia ports.	60–119	8	6	4	3	2	2	Under all-rail rates[3]

[1] But not to Boston via Fall River or Providence.
[2] But not less than rates established from 76 per cent points.
[3] The rates to Baltimore via all rail are the minima for through rates, except from St. Louis and other 117 per cent points. From the St. Louis group the Baltimore rates are not the minima.

The ocean-and-rail rates eastbound, it will be observed, apply via two distinct groups of points, namely, (1) Baltimore and Philadelphia and (2) the Virginia ports, including Norfolk and Newport News.

As Baltimore and the Virginia Cities are the termini of rail lines it is, of course, natural to find that no adjustment is prescribed for rates to such ports.

To New York and to the New England ports specified and to points taking the same rates, the rates are made the differentials indicated in Table 33, under the all-rail rates applicable from and to the same points.

For example, the all-rail rates from the 117 per cent group to Boston are the following New York rates:

Classes	1	2	3	4	5	6
Rates	105.5	92.5	70	49	42	35

to which are added the following differentials: [1]

Classes	1	2	3	4	5	6
Rates	7	6	5	4	3	2

resulting in the following through rates from East St. Louis to Boston via all-rail routes:

Classes	1	2	3	4	5	6
Rates	112.5	98.5	75	53	45	37

[1] Table 22, item 2.

Using the foregoing all-rail rates from East St. Louis to Boston as a basis, the rates via Baltimore or Philadelphia in connection with the ocean-and-rail lines, are established by deducting the 8-cent scale of differentials, which results in the following rates:

Classes	1	2	3	4	5	6
Rates	104.5	92.5	71	50	43	35

The same principles are employed in establishing the rates via Virginia ports, but with the proviso that rates so established must not in any event be less than the rates established to Baltimore via all-rail routes. This has the effect of making the rates (except from St. Louis, Mo., East St. Louis, Ill., and points basing thereon) the following differentials under the all-rail rates:

To	DIFFERENTIALS IN CENTS PER 100 POUNDS					
	Classes					
	1	2	3	4	5	6
Boston, Mass.	8	6	4	3	2	2
Providence, R. I.	8	6	4	3	2	2
New York, N. Y.	3	3	3	3	2	2
Jersey City, N. J.	3	3	3	3	2	2
Philadelphia, Pa.	1	1	1	1	1	1

As far as destinations are concerned, the base-point rates are not established to such wide zones as obtain in connection with the all-rail adjustment. To the greater part of New England, especially to interior points more distantly removed from the ports of Providence and Boston, the rates are made by the addition of certain arbitraries over the port rates, these arbitraries in some cases are the full local rates of the rail carriers serving the ports, and in other cases, they are certain amounts less than the local rates. This information is given in the guide books of these routes.

(b) Westbound Rates

On westbound traffic from New York, there are two scales of differentials in use. One scale is based on a 16.8-cent scale applicable during the open season of navigation on the Great Lakes, which causes competition that is felt by the ocean-and-rail lines to a considerable degree. The other scale is based on a 10-cent differential on first class, and is applicable when navigation is closed, and results in rates slightly higher during the winter months than those that obtain during the summer months.

Table 14 indicates the rates applicable via the various ocean-and-rail routes, and from this it may be observed that while the rates from Boston and New York to Chicago during the season of open navigation are on the same basis when navigation on the Great Lakes is closed, the rates applicable via the ocean-and-rail routes from Boston are on a 5-cent scale of differentials over the rates from New York via the same routes.

It may be said in passing, that in recent years, due to improved methods in the handling of cargo freight, the time consumed by these routes has been materially reduced and modern marine equipment has greatly minimized the opportunities for loss or damage. Consequently the lines afford a service that is but slightly inferior to that of the all-rail routes, and they have succeeded in attracting to themselves a large volume of business which formerly moved via all-rail lines at higher rates.

CHAPTER XX

Lake-and-Rail Rates

On the entrance of this country into the European war a large number of the lake boats were requisitioned for the Atlantic trade, consequently reducing the movement of merchandise to a minimum on the Great Lakes. Another important feature was Director-General McAdoo's order that all differential rates be removed, thus bringing the rates to the level of the all-rail routes. This naturally transferred the great bulk of freight to the railroads as there was no advantage in shipping over the slower routes. An outcry against this order was raised both by the lake carriers and the shippers, with the probability that these rates will be returned to their former status, and should therefore be very closely studied.

Navigation is possible upon the Great Lakes during the open season, when the lakes are unobstructed by ice. During this period, which usually extends from April 15 to November 15, from sixty million to one hundred million tons of freight are moved thereon. A large portion of the westbound tonnage, which is destined to and beyond western freight ports, originates at New York, Philadelphia, and Boston, and at other points in New England and Trunk Line territories.

The nature of the service, of course, is such that it attracts only such traffic for which the question of time and service is of secondary importance.

The figures shown in the following list are taken from a recent report of the United States Engineer Department.

	RECEIPTS	SHIPMENTS
Duluth-Superior	$9,424,962	$21,247,884
Manistique	....	278,594
Gladstone Harbor	....	449,223
Menominee	....	222,604
Marionette	....	83,899
Green Bay	751,326	129,455
Sturgeon Bay	....	571,773
Kewanee	143,584	73,282
Manitowoc	579,747	1,437,229
Milwaukee	6,224,239	1,388,002
Chicago	2,452,554	1,573,022
Calumet Harbor (South Chicago)	5,010,187	1,597,809
Buffalo	7,641,841	4,776,021

The shipments of the northern ports, such as Duluth and Superior, are confined to a greater extent to shipments of ore, grain, and grain products, and to other commodities that are peculiar to the northwest. Coal is also an item that figures in a large proportion in the lake traffic of the several ports. The following summary of the receipts at the port of Buffalo presents, however, a very diversified list of articles of commerce and may be taken as typical of those of other ports:

Beer	1,002	casks
Blanks, Button	97	sacks
Blocks, Butchers'	298	
Cakes, Oil	80,353	sacks
Casings	495	tons
Cereals	147,590	cases
Coal	71,395	tons
Cooperage	4,677	tons
Copper	99,830	tons
Cotton	10,660	bales
Feed	1,928,007	sacks
Fish	57	tons
Glucose	105,132	bbls.
Goods, Canned	42,980	cases
Goods, Woolen	42	cases
Grain and Flour—		
Barley	9,284,961	bu.
Corn	29,430,222	bu.
Flax	4,569,862	bu.
Flour	6,978,220	bu.
Oats	9,581,224	bu.
Rye	755,299	bu.
Wheat	68,427,588	bu.
Hair	13,736	bales

Hides	3,750	bales
Hops	1,050	bales
Implements, Agricultural	7,114	tons
Iron, Pig	62,487	gross tons
Iron, Scrap	235	gross tons
Lard	900	tubs
Lath	3,386,000	
Lead	2,000	pigs
Lead, White	236	cases
Leather	227	bundles
Lumber	104,434,000	ft. bd. meas.
Matting	7,746	rolls
Merchandise	165,671	tons
Ore, Iron	2,317,048	gross tons
Oat Meal	290	bbls.
Ore, Sulphur	31,000	gross tons
Paint	21	tons
Peas	6,025	bu.
Pebbles	5,790	sacks
Pelts	396	bundles
Pickles	1,260	bbls.
Pork	10,923	bbls.
Posts	17,000	
Rags	19,296	bales
Rubber	12,608	bales
Sand, Furnace	1,100	tons
Seed, Grass	11,944	bu.
Shingles	688,000,590	
Starch	643,706	boxes
Stone	34,065	tons
Syrup	5,195	bbls.
Tallow	130	bbls.
Ties, Railroad	4,000	
Tobacco	145	cases
Twine	275	tons
Vinegar	1,090	bbls.
Water, Mineral	1,023	bbls.
Wool	13,144	bales
Zinc	45	tons

These figures, which were also obtained from the engineers' report previously mentioned, represent a valuation of $230,304,221.

For a number of years it has been the policy of the trunk-line carriers to establish lake lines and to operate them as subsidiary properties. The more important of the lake lines with their parent companies were as follows (Annual Report—U. S. Engineer Department, 1912):

Anchor Line (Pennsylvania Railroad).
Erie & Western Transportation Company ("Anchor Line") (Pennsylvania Railroad).

Canada Atlantic Transit Company (Grand Trunk Railway).

Canadian Pacific Steamship Lines (Canadian Pacific Railway).

The Lehigh Valley Transportation Company (Lehigh Valley Railroad).

Mutual Transit Company (the joint property of the Lehigh Valley, the Erie, the Delaware, Lackawanna & Western, and the New York Central railroads).

The Western Transit Company (New York Central Railroad).

Rutland Transit Company (Rutland Railroad).

Erie Railroad Lake Lines (Erie Railroad).

The map in Diagram 9 has been reproduced in this treatise[1] because it indicates the routes and the various ports of call served by several of the important companies.

The propriety of the continuance of the lake lines under railroad control was made the subject of legislation in the so-called Panama Canal Act. The ownership by rail carriers of water craft which, if operated as independent lines, might compete for trade was made an issue in the case of the lake lines, and the Interstate Commerce Commission decreed that a continuance of such ownership was contrary to the statute and contrary to the public interest. It therefore ordered the railroads to dispose of their interest in the lake lines not later than December 15, 1915.

In the issue above mentioned, it was alleged that the boat lines when operating as a distinct unit have been losing, but that by reason of the financial strength of the owning railroads the boats have been kept in service, though operating at a loss; that this condition could not or would not prevail if it were not for the joint ownership; that the boats would otherwise disappear from the lakes; and that the keeping of these boats in the service is indispensable and advantageous to the convenience and commerce of the people.

Even under these new conditions the rates maintained by the lake lines under railroad management for

_____
[1] See Diagram 9, page 106.

some years will serve as the criterion by which such rates as may be established in the future may be measured.

Owing to the aggressive competition between many lines participating in the traffic and in the complaints broughts by rival communities as to the adjustment, the general basis for the construction of rail-and-lake rates has been subject to many fluctuations. The adjustment currently in effect has been reproduced in Table 34, which shows the basis for rail-and-lake rates on classes from the eastern groups specified in the table to various western destinations.

TABLE 34

Basis for Rates via Rail and Lake on Classes from Eastern Groups to Western Points Specified

Item	From New York Rate Group to	Rates or Differentials in Cents per 100 Pounds Classes						Remarks
		1	2	3	4	5	6	
1	Chicago, Ill., Milwaukee and Manitowoc,[1] Wis. Also to Gladstone[1] and Sault Ste. Marie,[1] Mich., for Lake Line Delivery	13	11	9	5	5	4	Lower than New York-to-Chicago all-rail rates
2	Cleveland, Ohio	5.9	5.5	3.3	3.1	2.4	1.7	Lower than all-rail rates
3	Detroit and Port Huron, Mich.	11.5	8.3	6	4.7	4.6	2.5	Lower than all-rail rates
4	Duluth, Minn., Marquette,[1] Mich. Superior, Wis., Hancock,[1] Houghton, Dollar Day,[1] and Hubbel,[1] Mich.							Same rates as from New York to Chicago via rail and lake
5	Sault Ste. Marie,[1] Mich., and stations on M. St. P. & S. S. M. Ry., St. Mary's Transfer to Rapid River and Trenary, Mich., inclusive, via Lake Lines to Gladstone, Mich., thence via rail	3	3	3	3 (Inf. 11951)	2½	2½	Higher than New York-to-Chicago rail-and-lake rates

[1] At the time of revision of this treatise the rail-and-lake rates are in a very uncertain state because the rail lines have been obliged to relinquish their control of the boat lines operating on the Great Lakes. A number of the boats formerly owned by the railroads are being operated by The Great Lakes Transit Corporation, an organization independent of the rail lines. The basis of rates therefore shown is subject to change, and careful investigation should be made to determine the rates in effect at any specified time.

TABLE 34—Continued

BASIS FOR RATES VIA RAIL AND LAKE ON CLASSES FROM EASTERN GROUPS TO WESTERN POINTS SPECIFIED

ITEM	FROM NEW YORK RATE GROUP TO	RATES OR DIFFERENTIALS IN CENTS PER 100 POUNDS Classes						REMARKS
		1	2	3	4	5	6	
6	St. Paul rate territory	21	18	13	8	7	5	Higher than Duluth rail-and-lake rates
	Aurora-Elgin, Ill.	14.3	11.1	8.2	6.4	5.7	4.1	
	Altamont, Annawan, Laura	14.4	12.2	8.9	5.7	5.5	4.5	
	Mason City	14.3	11.5	8.8	6.2	5.3	4.5	
	Galva, St. Louis	14.2	11.9	8.4	6.1	5.9	4.8	
	St. Marys	14.2	11.3	8.1	5.9	5.4	4.1	
7	Westville	14.1	11.8	8.7	5.7	6	4.4	Lower than all-rail rates
	Neponset	14.6	11.5	8.4	6.3	5.2	4.2	
	Danville, Joliet, Kankakee, Racine	13.8	11.3	8.5	5.8	5.5	4.3	
	Peoria, Streator	13.7	11.1	8.8	5.5	5.7	3.9	
	Atkinson, Carthage, Monmouth, Moline	12.2	9.9	7.4	5.1	4.9	3.8	
	Springfield	14	12.2	8.3	5.6	5.6	4.7	
	FROM PHILADELPHIA RATE GROUP TO							
8	All destination territories above enumerated	6	6	2	2	2	2	Lower than rail-and-lake rates from New York
	FROM BALTIMORE RATE GROUP TO							
9	All destination territories above enumerated	8	8	3	3	3	3	Lower than rail-and-lake rates from New York
	FROM CERTAIN POINTS IN VICINITY OF NEW YORK[2] TAKING NEW YORK BASIS ON RAIL-AND-LAKE TRAFFIC, TO							
	Galion, Ohio	5.9		4.9	1.9	3	1.9	2	
	Tiffin, Ohio Forest, Ohio	7.5		6.3	3		3.7	2.6	2.5	
10	Findlay, Ohio	9		7.6	4		4.4	3.2	3	
	Urbana, Ohio	10.6	9		5.1	5.2	3.8	3.6	Lower than New York all-rail rates[2]
	Springfield, Ohio	11.4		9.7	5.6	5.5	4.1	3.8	
	Dayton, Ohio	12.2	10.4	6.1	5.9	4.5	4.1	
	Ansonia, Ohio	13		11.1	6.6	5.3	4.8	4.4	
	Union City, Ohio	12.8	10.7	7.2	5.6	5.1	3.6	

TABLE 34—Continued

BASIS FOR RATES VIA RAIL AND LAKE ON CLASSES FROM EASTERN GROUPS TO WESTERN POINTS SPECIFIED

ITEM	FROM CERTAIN POINTS IN VICINITY OF NEW YORK[2] TAKING NEW YORK BASIS ON RAIL-AND-LAKE TRAFFIC, TO	RATES OR DIFFERENTIALS IN CENTS PER 100 POUNDS						REMARKS
		Classes						
		1	2	3	4	5	6	
10	Cincinnati, Ohio	13.6	10.4	7.7	6	5.4	3.9	Lower than New York all-rail rates[2]
	Winchester, Ind.	13.3	11.1	8.2	5.4	5.7	4.1	
	Muncie, Ind.	12.9	10.5	8.3	5.1	5.4	3.7	
	Anderson, Ind.	13.5	10.8	8.3	5.9	5	4.2	
	Indianapolis, Ind.	13.3	11.5	7.8	5.2	5.3	4.5	
	Fairmount, Ind.	13.9	10.9	7.9	6	4.9	4	
	Lebanon, Ind.	13.6	11.6	8.4	5.3	5.2	4.2	
	Martinsville, Ind.	13.4	11.3	7.9	5.7	5.6	4.5	
	Crawfordsville, Ind.	13.8	11.3	8.5	5.8	5.5	4.3	
	FROM BOSTON RATE GROUP[4] TO							
11	Cleveland, Ohio	7.9	6.5	4.3	4.1	3.4	1.7	Lower than Boston all-rail rates
12	Detroit, Port Huron, Chicago, Milwaukee, Manitowoc, Gladstone, Sault Ste. Marie, Duluth, Superior, Marquette, Hancock, Houghton, Dollar Bay, Hubbel, St. Paul, Green Bay, Racine, Joliet, Kankakee, Aurora, Elgin, Streator, Neponset, Laura, Galva, Annawan, Atkinson, Moline, and Monmouth rate territories							Same as rail-and-lake rates from New York
13	Danville, Ill.	8.8	7.3	5.5	4.8	3.5	2.3	Lower than Boston all-rail rates
	St. Mary's, Ind.	9.2	7.3	5.1	4.9	3.4	2.1	
	Westville, Ill.	9.1	7.8	5.7	4.7	4	2.4	
	Peoria, Ill.	8.7	7.1	5.8	4.5	3.7	1.9	
	Mason City, Ill.	9.3	7.5	5.8	5.2	3.3	2.5	
	Springfield, Ill.	9	8.2	5.3	4.6	3.6	2.7	
	Altamont, Ill.	9.4	8.2	5.9	4.7	3.5	2.5	
	St. Louis, Mo. Trans-Mississippi	9.2	7.9	5.4	5.1	3.9	2.8	
	Carthage, Ill.	7.2	5.9	4.4	4.1	2.9	1.8	

[2] Included are Brooklyn, Jersey City, New York City, and stations on Hudson Division of New York Central Railroad, New York north to and including Castleton, N. Y.—a point 9 miles south of Albany.

[2] But not less than the following scale:

Classes	1	2	3	4	5	6
Rates	54	47	38	25	22	18

[4] See explanation of status of rail-and-lake, etc., rates, page 232.

Table 34 indicates only some of the important terminal points. Other points are grouped with these, and the same rate is made thereto.

It will be observed that this adjustment is applied as far west as St. Paul, and that through rates are published by the rail-and-lake lines governed by the Official Classification, although a considerable portion of the territory involved lies wholly within Western Classification Territory.

In general, it may be stated that the rail-and-lake rates are certain arbitraries under the all-rail rates between the same points. This scale of differentials, however, is not the same in all cases, as it varies to a considerable degree as is indicated in Table 34.

The rates to Duluth are at present the same as the rail-and-lake rates to Chicago. These rates were established by the carriers under an order of the Interstate Commerce Commission resulting from a complaint made by the Commercial Club of Duluth that the then existing rates, which were made on a 68-cent scale, were unduly prejudicial to the interests of Duluth and favored Chicago as a distributing point for northwestern territory at the expense of the Duluth interests.

In touching upon the adjustment employed in the establishment of rail-and-lake rates, the Commission called attention to the fact that in addition to the general investment in boats, wharves, and other property used in the service there are, of course, a number of special factors that properly enter into these rail-and-lake rates that are not characteristic of all-rail rates. The capacity of the boat, for example, is necessarily an important element. Properly related to this is the depth of the channels through which the boat must pass—this controls its loading. The sufficiency and convenience of the wharf and dock facilities is another matter which must be considered. The character and condition of the

harbor and of the harbor entrance are of no less
importance. The length of haul is entitled to some con-
sideration, although mere distance, as all agree, has even
less influence on a water rate than it has on a rail rate.
The time taken in making the trip has some relation to
the rate, although a difference of merely a few hours is
not of great importance. A feature of more importance
is the conditions of navigation with respect to the
matter of storms, fogs, and similar perils that are
incident to water transportation. And finally, as with
all rates, the density of the traffic and the cost of
operation must not be overlooked.

A comparison of the distance to Duluth with the
distance to Chicago on traffic originating in the seaboard
indicates that it is practically the same. As a matter of
fact, the actual distance in favor of Chicago as reckoned
from New York is but 96 miles.

The rates to Sault Sainte Marie, Mich., and to other
points taking the same rates are the differentials shown
in item 5 of Table 34 higher than the rail-and-lake rates
from New York to Chicago.

The lake-and-rail rates to points south and west of
Chicago shown in item 7 of the Table 34 are arbitraries
under the all-rail rates to the same points.

DIFFERENTIAL RATES—Continued

Lake-and-Rail Rates—Continued

The water-and-rail-rates from New York and from other points taking the same rates to Canadian percentage groups shown on Map 9, *Atlas of Railway Traffic Maps,* are set forth in Table 35.

TABLE 35

Basis for Rates via Water and Rail on Classes from Eastern Groups to Western Points Specified

Item	From New York Rate Group to Canadian Percentage Groups	Rates or Differentials in Cents per 100 Pounds					
		Classes					
		1	2	3	4	5	6
1	76C, 76D, 78C, 78D % points via water-and-rail lines via Long Island Sound, New London, Conn., or Boston, Mass., or Portland, Me.	53.5	47.3	37	25.7	21.6	18.5
	Points taking higher than 78% rates via water-and-rail lines via Long Island Sound, New London, Conn., or Boston, Mass., or Portland, Me., are not less than on basis of the following differentials below standard all-rail-rates.	8	6	4	3	3	2

The rates from New York via the New York, Ontario & Western Railway via the Niagara Frontier are slightly less than the all-rail rates; thus, from New York to Canadian percentage groups, via Rouse's Point, the rates are not less than the standard all-rail rates. From New York points to points taking not higher than 78 per cent of the rates from New York to Chicago via water lines through Long Island Sound and New England ports, the rates are slightly less than the all-rail rates, as is shown by the

differentials in Table 35. To the Canadian percentage groups taking higher than 78 per cent of the rates from New York to Chicago via water lines through Long Island water routes and through New England ports, the rates are made certain differentials under the all-rail rates.

From Philadelphia and Baltimore via rail and lake to all destination groups named in Table 35, except in Canadian percentage territory, the rail-and-lake rates are regular Philadelphia and Baltimore differentials under the rail-and-lake rates from New York to the same points. The Philadelphia and Baltimore differentials are based on the 6-cent scale and 8-cent scale respectively, as shown in items 8 and 9 of Table 34.

From certain points in the vicinity of New York to certain groups in Central Freight Association Territory, rail-and-lake differentials are the scales shown in Table 34. These scales are lower than the regular scale applying from New York proper.

Rail-and-Lake and Rail-Lake-and-Rail Rates from C. F. A. Territory

The basis for rates from C. F. A. Territory to Lake Huron, Lake Superior, and Lake Michigan ports, and also to Detroit, Port Huron, St. Paul, and points taking the same rates is set forth in Table 36. For rates between these points C. F. A. Territory is divided into the following groups:

Akron ....Ohio	Indianapolis ....Ind.	New Philadelphia
Beaver ....Pa.	Jeffersonville ....Ind.	.............Ohio
Cambridge ......Ohio	Louisville ....Ky.	Orrville ....Ohio
Canal Dover.....Ohio	Mahoning and Shen-	Parkersburg...W. Va.
Canton ....Ohio	ango Valley	Pittsburgh ....Pa.
Cincinnati ......Ohio	Points ....Ohio-Pa.	Springfield .....Ohio
Columbus ......Ohio	Marietta ....Ohio	Steubenville ....Ohio
Dayton ....Ohio	Massillon ......Ohio	Toledo ....Ohio
Ellwood City......Pa.	New Albany.....Ind.	Wheeling .....W. Va.
Evansville ......Ind.	New Cornerstown	Zanesville ......Ohio
Hamilton ....Ohio	.............Ohio	

From C. F. A. Territory to a number of the groups the rates are made by a combination of the local rates to and from the Lake Erie ports, observing the rail-and-lake rates from Baltimore, Md., as maxima. From C. F. A. Territory to other groups the rates are usually certain differentials under the all-rail rates, subject in some cases to the combination of local rates to and from Lake Erie ports and the rail-and-lake rates from Baltimore, Md., as maxima.

TABLE 36

BASIS FOR RATES VIA RAIL AND LAKE AND VIA RAIL, LAKE, AND RAIL FROM C. F. A. TERRITORY TO LAKE HURON, LAKE MICHIGAN, AND LAKE SUPERIOR PORTS, ST. PAUL, AND POINTS TAKING THE SAME RATES[1]

ITEM	FROM C. F. A. TERRITORY TO	DIFFERENTIALS IN CENTS PER 100 POUNDS						REMARKS
		Classes						
		1	2	3	4	5	6	
1	Alpena (Au Sable, Oscada, Harrisville, and Alpena. Mich.)	..	..	..	..	..	..	Combination of local rates to and from Lake Erie ports, observing the rail-and-lake rates from Baltimore, Md., to Sault Ste. Marie, Mich., as maxima
2	Bay City (Bay City, Saginaw, La Peer. and Flint, Mich.)	3	3	3	2	1	1	Less than all-rail rates
3	Cheboygan (Mich.)[2]	..	..	..	..	..	..	Combination of local rates to and from Lake Erie ports, observing the rail-and-lake rates from Baltimore, Md., as maxima
4	Detroit (Detroit and Sugar Island Park, Mich.)	3	3	3	2	1	1	Less than all-rail rates
5	Duluth (Minn.)[2]	..	..	..	..	..	..	Combination of local rates to and from Lake Erie ports, observing the rail-and-lake rates from Baltimore, Md., as maxima

TABLE 36—Continued

BASIS FOR RATES VIA RAIL AND LAKE AND VIA RAIL, LAKE, AND
RAIL FROM C. F. A. TERRITORY TO LAKE HURON, LAKE
MICHIGAN, AND LAKE SUPERIOR PORTS, ST. PAUL,
AND POINTS TAKING THE SAME RATES

ITEM	FROM C. F. A. TERRITORY TO	DIFFERENTIALS IN CENTS PER 100 POUNDS						REMARKS
		Classes						
		1	2	3	4	5	6	
6	Gladstone (Mich.)	..	..	..	..	..	..	Combination of local rates to and from Lake Erie ports, observing the rail-and-lake rates from Baltimore, Md., as maxima
7	Harbor Beach (Lexington, Port Sanilac, Forester, Harbor Beach, and Port Hope, Mich.)	3	3	3	2	1	1	Less than all-rail rates, subject to combination of local rates to and from Lake Erie ports and rail-and-lake rates from Baltimore, Md., as maxima
8	Port Huron (Marine City, St. Clair, Port Huron, Sarnia, and South Port Huron, Mich.)	..	..	..	..	..	..	All-rail rates, subject to rail-and-lake rates to Bay City, Mich., as maxima
9	St. Paul (Minn.)[4]	10	10	10	5	5	5	Less than all-rail rates
10	Sault Ste. Marie (Mich.)[5]	..	..	..	..	..	..	Combination of local rates to and from Lake Erie ports, observing the rail-and-lake rates from Baltimore, Md., as maxima

[1] The groups of C. F. A. Territory are shown on page 238.
[2] Glen Haven, Glen Arbor, South Manitou, North Manitou, Leland, Northport, Omena, Suttons Bay, Traverse Bay, Elk Rapids, Old Mission, Norwood, Charlevoix, Ironton, South Arm, East Jordan, Boyne City, Petoskey, Harbor Springs, St. James, St. Ignace, Rogers City, Cheboygan, and Mackinac Island, Mich., except that when via the C. & D. Tr. Co., St. Ignace and Mackinac Island, Mich., take Sault Ste. Marie rates.
[3] Duluth and Superior, Wis., points on shore of Lake Superior from Superior, Wis., to but not including Ashland, Wis., territory, lying north of line of the C. & N. W. Ry., Ashland to Saxon, Wis.; thence territory north of the line of the D. S. S. & A. Ry., Saxon, Wis., to Marquette, Mich.; thence all points on shore of Lake Superior to but not including Sault Ste. Marie, Mich., also Sault Ste. Marie, Ft. Williams, and Port Arthur, Ont.
[4] East of the Mississippi River, Minneapolis, Minn., to La Crosse, Wis., including South St. Paul, Red Wing, St. Louis Park, Hopkins, and Winona, Minn.; thence on and north of the line of the C. M. & St. P. Ry., through Portage, Wis., to Madison, Wis.; thence via an imaginary line to Schleisinger-ville, Wis.; thence on and west of the line of the M. St. P. & S. S. M. Ry., to Fond du Lac, Wis.; thence on, north, and west of the line of the C. & N. W. Ry., through Sheboygan, Wis., to Manitowoc, Wis.; thence on and south of the line of the St. P. & S. S. M. Ry., to Menasha, Wis.; thence on and west of the line of the C. & N. W. Ry. to Green Bay, Wis.; including stations

Green Bay to Kewaunee, Wis., on the R. G. B. & W. R. R.; thence on and
west of the west shore of Green Bay and north bank of the Menominee
River to Menominee, Mich.; thence on, west, and north of the line of the
C. & N. W. to Narenta, Mich.; thence north of an imaginary line to Larch,
Mich. (M. St. P. & S. S. M. Ry.), including stations west thereof on the
M. St. P. & S. S. M. Ry.; thence via an imaginary line to a point west of
Alecto, Mich., on the C. & N. W. Ry.; thence on and west of the line of the
C. & N. W. Ry. to Ashland, Wis.; and thence south of the shore of Lake
Superior to the city limits of Superior, Wis.; thence south of the corporation
boundaries of Superior, Wis., to a point whence an imaginary line drawn
westward to Cloquet, Minn., will include Summit, Minn., on the Northern
Pacific Ry.; thence on and east of the line of the Northern Pacific Ry.; to
Minneapolis, Minn., the point of beginning.
    [5] Stations on the M. St. P. & S. S. M. Ry., Masonville to Sault Ste. Marie,
Mich.; Detour, Mich., via the Arnold Transit Co.; Mackinac Island and St.
Ignace, Mich., via the C. & D. Tr. Co.

The rates presented in Table 36 are fixed via the shorter
or more direct routes, but apply also via the longer or
more circuitous routes. The lines that comprise the
shorter or more direct routes from and to some groups
are the longer and more circuitous routes from and to
other groups, and the fourth section of the Act to Regu-
late Commerce is violated in many cases via the cir-
cuitous routes.

Ocean-Rail-and-Lake Rates

Certain traffic is carried from New York via ocean-rail-
and-lake routes. The principal route of this character is
from New York via Long Island Sound to New London,
thence via rail to Georgian Bay, and thence via lake. The
scale of rates via this route from New York to Chicago is
shown in Table 14 and is established on a stated differen-
tial lower than the rates of the standard rail-and-lake
routes.

Another route is that from Boston, Mass., or Provi-
dence, R. I., via Merchants & Miners Transportation
Company (ocean route) to Baltimore, thence via rail
to Sandusky, Ohio, and Ashley & Dustin Steamer Line
to Detroit, or via rail to Cleveland, and Detroit and
Cleveland Navigation Company to Detroit.

Rates via this route are the following differentials
below the Boston-to-Detroit all-rail rates:

Classes	1	2	3	4	5	6
Cents per 100 lbs	15.5	12.3	9	7.7	6.6	3.5

River-Canal-and-Lake Rates

The Erie Canal, begun in 1816 and completed in 1825, represented at that time an initial cost of $7,602,000. Up to and including 1896, it was estimated that the cost of construction, upkeep, and improvements aggregated $52,540,000. So effective did this agency prove in the past decades, as a transportation medium, that the question of its improvement was put to popular vote and a vast appropriation was authorized to improve the canal to enable vessels of one thousand to twelve hundred tons capacity to use it. This work is rapidly nearing completion.

With the resumption of independent water line competition on the Great Lakes it may reasonably be inferred that the Erie Canal will be similarly favored. No through rates have been in effect for a number of years by independent water lines. The New York & Western Canal Line, Inc., of New York, however, published for the season of 1916, the following rates from New York to western destinations:

FROM NEW YORK TO	RATES IN CENTS PER 100 POUNDS					
	Classes					
	1	2	3	4	5	6
Utica, N. Y.	17	15	14	12	11	10
Syracuse, N. Y. Rochester, N. Y.	20	18	15	12	11	10
Buffalo, N. Y.	21	19	15	12	11	10
Cleveland, Ohio	40	35	28	19	17	15
Detroit, Mich.	41	37	29	20	17	16

The foregoing rates are not made on a fixed basis. This company has not extended service, at this writing, to Lake Michigan and Lake Superior ports, but it is its intention to do so. The canal-and-lake rates to Cleveland and Detroit are much less than the rail-and-lake rates, and the service provided by the all-water route compares favorably with that of the rail-and-lake service.

Whether or not there is any traffic on the Erie Canal, the potential competition is of incalculable value since any considerable increase in rail charges causes the competition to become sufficiently active and aggressive to divert the tonnage from the rail lines.

There are numerous other artificial waterway projects under consideration, among the important ones are a 9-foot stage of water on the Ohio and Mississippi rivers and a proposed canal which would connect the Ohio River with Lake Erie, and run along the eastern part of the state of Ohio thus serving as an outlet to the Pittsburgh district.

TEST QUESTIONS

1. Define the term "short-haul points."

2. At the present time does the same rule for the disposition of fractions apply in computing both eastbound and westbound rates?

3. Are the outlines of the percentage groups the same for both eastbound and westbound traffic?

4. How do the rates from Chicago to the Virginia Cities compare with the Chicago-to-Baltimore rates?

5. What minimum rate must be observed in constructing rates from percentage groups to Rockland, Me.?

6. How are rates from the 60 per cent group to Cumberland, Md., constructed?

7. What condition is established in connection with the construction of rates to the Virginia Cities from points taking less than 77 per cent of the Chicago-New York rates?

8. How do the class rates from Chicago to Boston compare with the rates in the reverse direction?

9. What arguments may be advanced to substantiate the disparity between the eastbound adjustment and the westbound adjustment?

10. As concerns New England, how does the Interstate Commerce Commission view the propriety of the existing rate adjustment?

11. Enumerate the more important interior eastern basing points.

12. How does the eastbound commodity-rate adjustment correspond with the adjustment obtaining in connection with the establishment of class rates?

13. When the commodity rate is not the same as the class rate, how would you determine the proper differential to be added or to be deducted?

14. Illustrate the construction of a commodity rate from Cincinnati to New York, on the basis of a rate of 21 cents from Chicago to New York.

15. On the basis of 33 cents, Chicago to New York, what will be the corresponding rate from East St. Louis to Albany?

16. How do you view the propriety of making rates "what the traffic will bear"?

17. On what basis must the rates on grain be adjusted?

18. What is accomplished through the establishment of low commodity rates?

19. On what basis may the distinction in rates applicable on grain as compared with those on grain products be defined?

20. What competing factors influence the adjustment of rates on grain and grain products from points in Central Freight Association Territory to the Atlantic seaboard?

21. Is the adjustment widely different from that applicable on general commodities?

22. What is the reshipping rate on domestic grain from Chicago to New York?

23. What is the reshipping rate on grain for export from Chicago to Baltimore?

24. Do Boston, Mass., and New York, N. Y., compete on the same basis for export grain trade?

25. For what purpose are reshipping rates established?

26. What is the necessity of the varying percentages established in connection with the adjustment of rates obtaining from the 60 per cent group?

27. What is the adjustment for the establishment of rates from Dunkirk, N. Y., to Albany, N. Y., and points basing thereon?

28. In what manner do the rates on dressed meat and live stock influence each other?

29. What class of goods is included in the designation, packing-house products?

30. What prime factors are to be considered in the establishment of rates on live stock?

31. Illustrate the construction of rates on dressed meats from Peoria to Syracuse.

32. What class of iron and steel articles are generally accorded specific rate adjustments?

33.   What is the basing rate applicable on pig iron?

34.   How are the rates on iron and steel articles from the Pittsburgh district to Boston constructed?

35.   How do the rates from Youngstown compare with these?

36.   How are the rates from Cleveland to Albany constructed?

37.   Name several of the differential routes available between Chicago and New York.

38.   What is the character of the traffic handled by the lake lines?

39.   What is the principal item of tonnage?

40.   On what scale of differentials are lake-and-rail rates established from Chicago to New York?

41.   What are the class rates from New York to Canadian percentage group 76-C via water-and-rail routes?

42.   How are the lake-and-rail rates to St. Paul, Minn., from Central Freight Association adjusted with respect to the all-rail rates?

43.   How does the river-canal-and-lake rate on first-class traffic from New York to Detroit compare with the all-rail rates?

44.   Is the lake-and-rail service available to shippers at all times?

WESTERN TERMINI ADJUSTMENT

RATES TO AND FROM WESTERN TERMINI POINTS

The Western Termini Points, of which Buffalo, N. Y., Oil City, Pa., Pittsburgh, Pa., Wheeling, W. Va., Charleston, W. V., and Ashland, Ky., are the more important, originally marked the western termini of the "Eastern Trunk Lines," namely, The New York Central Railroad, the Erie Railroad, the Pennsylvania Railroad, the Baltimore & Ohio Railroad, and the Chesapeake & Ohio Railway. In the early days the Western Termini Points as such gained considerable prominence as jobbing centers from which goods were distributed to the then undeveloped Middle West. At the present time, these points also represent the eastern termini of many Central Freight Association roads, and owing to the fact that a different adjustment of rates applies between points in Trunk Line Territory, on the one hand, and in Central Freight Association Territory, on the other, it has been necessary to design a special adjustment in construction of rates which eliminates, as far as possible, abrupt breaks in the intraterritorial rate adjustment.

This particular zone is an intensified manufacturing district, and from Buffalo on the north to Charleston, W. Va., on the south, traffic of various kinds moves in immense quantities. Competition in various localities with the principal termini points has led to the establish-

ment of the termini adjustment to other points, and as a result the tariffs of the individual lines name many points other than the termini points proper to which application of termini rates is authorized.

To exemplify this adjustment, the construction of rates to Buffalo, N. Y., and Pittsburgh, Pa., may be taken as typical, and accordingly in Table 37 have been reproduced some of the rates applicable from some of the more important common points on the line of the New York Central Railroad (formerly the Lake Shore & Michigan Southern Railway) to Buffalo, N. Y., and to Pittsburgh,

TABLE 37

CLASS RATES FROM CENTRAL FREIGHT ASSOCIATION POINTS TO BUFFALO, N. Y., AND PITTSBURGH, PA.

MILES TO BUFFALO	FROM	To BUFFALO, N. Y. RATES IN CENTS PER 100 POUNDS Classes						To PITTSBURGH, PA. RATES IN CENTS PER 100 POUNDS Classes					
		1	2	3	4	5	6	1	2	3	4	5	6
40	Dunkirk, N. Y.	26.5	22.5	18	13.5	9.5	7.5	48.5	41	32.5	24.5	17	13.5
58	Westfield, N. Y.	30	25.5	20	15	10.5	8.5	48.5	41	32.5	24.5	17	13.5
73	North East, Pa.	31.5	27	21	16	11	9	48.5	41	32.5	24.5	17	13.5
88	Erie, Pa.	33.5	28.5	22.5	17	11.5	9.5	45	38.5	30	22.5	16	12.5
103	N. Girard, Pa.	35.5	30	24	18	12.5	10	33.5	28.5	21.5	15	11.5	9
183	Cleveland, Ohio	35	30.5	23.5	16	13	10	33.5	28.5	21.5	15	11.5	9
208	Elyria, Ohio	43	36.5	27.5	19	15	12	35.5	30	23	15.5	12.5	9.5
243	Sandusky, Ohio	47.5	40	30.5	21	16.5	13	52	44	34	24.5	19.5	15.5
296	Toledo, Ohio	41.5	36	27.5	19.5	15.5	12.5	42	35.5	27.5	18.5	14.5	11.5
361	Detroit, Mich.	42	35.5	27.5	18.5	14.5	11.5	45	38	29.5	20	16	13
350	Bryan, Ohio	46	39	30.5	20.5	16.5	13.5	44	37	29	19.5	15.5	12.5
329	Adrian, Mich.	44	37	29	19.5	15.5	12.5	44	37	29	19.5	15.5	12.5
408	Sturgis, Mich. .	47	40	31.5	21.5	17	14	47	40	31.5	21.5	17	14
454	So. Bend, Ind.	50	42.5	33.5	23	18.5	15.5	45	38	29.5	20	16	13
481	LaPorte, Ind.	61	52	41	30.5	21.5	17	61	52	41	30.5	21.5	17
540	Chicago, Ill.	62	52.5	41.5	31	21.5	17.5	62	52.5	41.5	31	21.5	17.5

Pa., as well as the distance such points are removed from Buffalo.

It will be noted from the foregoing table that, from the short-haul points, the rates to Buffalo (owing to the fact that the distance is so much less than to Pittsburgh) are lower than to Pittsburgh, but as the points of origin become more and more distant the rates to Pittsburgh and to Buffalo are the same although the mileage to one or the other of these points might be such as to warrant the application of a lower scale to such points.

To place these points on an equality, however, it has long been the custom to make the rates to or from all of them the same where the distance was such as not to involve the integrity of the Central Freight Association scale, as far as rates to or from intermediate points in Central Freight Association Territory might be concerned. Consequently, throughout that part of Central Freight Association Territory lying east of the Indiana-Illinois state line, the Central Freight Association scale adjusted to distance via reasonably workable routes is applied in the construction of rates to the various Western Termini Points. As far, however, as Ashland, Ky., and Charleston, W. Va., are concerned, lower rates are sometimes named, especially from the southern part of the territory, to Ashland on the one hand, and higher rates to Charleston on the other, which is occasioned by the lack of competition in so far as the production of certain commodities and the movement of other traffic is concerned.

From the territory lying beyond, and including, the 100 per cent group the rates to the Western Termini Points are made on a percentage relationship using Chicago-to-New York rates as basing factors. The current adjustment, in so far as class rates are concerned, is set forth in Table 38. [1]

[1] At the time of revision of this treatise the current rates are at variance with the basis because the carriers have increased the rates between the points mentioned by adding 25% to the rates rather than by taking the various percentages of the new base rates. It is presumed that the interested carriers will restore rates on the old basis, that is, will again establish the percentage relationship.

TABLE 38

BASIS FOR CLASS RATES BETWEEN THE WESTERN TERMINI AND
PERCENTAGE GROUPS 100-120 IN CENTRAL
FREIGHT ASSOCIATION TERRITORY [1]

Points on Map 4 taking 100 per cent or higher of the rates from Chicago to New York	Per cent of rates from percentage groups to New York
100 per cent	60
Over 100 to and including 110 per cent	62
Over 110 to and including 116 per cent	64
117 per cent	$64\frac{1}{2}$
Over 117 to and including 120 per cent[2]	70

[1] Petition No. 2 of Central Freight Association for Relief from the Fourth Section of the Act to Regulate Commerce.
[2] Except that to and from points listed below and stations usually taking the same rates, the rates are eastbound, 64 per cent, westbound, 70 per cent of those between Chicago and New York.

Benton, Ill.	Eldorado, Ill.	Parker City, Ill.
Brooklyn, Ill.	Enfield, Ill.	Percy, Ill.
Carbondale, Ill.	Gale, Ill.	Pinckneyville, Ill.
Carmi, Ill.	Marion, Ill.	Shawneetown, Ill.
Chester, Ill.	Mound City, Ill.	Sparta, Ill.
Coulterville, Ill.	Murphysboro, Ill.	Tamaroa, Ill.
DuQuoin, Ill.	Norris, Ill.	
East Cape Girardeau, Ill.	Paducah, Ky.	

While rates between the Western Termini and points named below are $64\frac{1}{2}$ per cent of New York rates.
    Cairo, Ill.
    Henderson, Ky.
    Owensboro, Ky.
    Thebes, Ill.

It is necessary in the application of this adjustment to construct the rates from the required percentage groups in question to New York and then to apply to the base rate thus determined, the percentages shown in the above table applying from the corresponding groups.

For example, if class rates were desired from the 110 per cent group to the Western Termini Points, the rates from the 110 per cent group to New York would first be constructed, resulting in the following:

Classes	1	2	3	4	5	6
Rates	99	87	66	46	40	33

From these rates, then, 62 per cent should be figured, according to Table 38, and the result, which is as follows:

Classes	1	2	3	4	5	6
Rates	61.5	54	41	28.5	24.5	20.5

would be the rates to all of the Western Termini Points from Ashland, Ky., on the south, to Buffalo, N. Y., on the north, from the 110 per cent group.

So likewise, the rates from Chicago to Pittsburgh are made 60 per cent of the rates from Chicago to New York. The rates from Evansville, Ind., to Buffalo are 62 per cent of the rates from Evansville to New York, and the same rates apply westbound. The rates from Evansville, Ind., to New York are 105 per cent of the rates from Chicago to New York. The westbound rates from New York to Evansville are 110 per cent of the rates from New York to Chicago, as shown on Map 3 in *Atlas of Railway Traffic Maps*. This 110 per cent of the New York-to-Chicago rate is not used as a basis for class rates from the Western Termini Points to Evansville as the adjustment obtained under the application of the eastbound New York rates is applied in both directions.

General Commodity Rates

Rates on general commodities that take rates of 26.3 cents per 100 pounds or higher, are made under the same formula that is applied in the establishment of class rates. In other words, on such commodities, the basis set forth in Table 38 is to be used, with this exception, that on eastbound traffic, rates are based on eastbound rates and percentage groups, and on westbound traffic, on westbound rates and percentage groups.

This is necessary owing to the dissimilarity of freight traffic movement. The preponderance of tonnage eastbound is confined to crude and raw materials, agricultural products, live stock, and lumber while the westbound movement is, to a large extent, of textiles, machinery, and other manufactures, and under the foregoing, if a commodity takes a rate of 40 cents per 100 pounds between Chicago and New York, the rate from Evansville to New York is 105 per cent of 40, or 42 cents; whereas the rate

from New York to Evansville is 110 per cent of the rate from New York to Chicago, or 44 cents, and the rates on the commodity adjustment from or to Western Termini Points would be adjusted on these figures according to the direction of the movement.

As concerns commodities bearing a rate of less than 26.3 cents per 100 pounds, they are established under an adjustment which is proportionately higher than the class-rate adjustment between percentage points in the 100 to 120 per cent groups, inclusive, and the current basis has been reproduced in the following table.

TABLE 39

BASIS FOR COMMODITY RATES BETWEEN THE WESTERN TERMINI AND PERCENTAGE GROUPS 100-120 FOR COMMODITIES ON WHICH THE NEW YORK-CHICAGO RATES ARE LESS THAN 26.3 CENTS PER 100 POUNDS

Points taking percentages shown below of the rates from Chicago to New York or from New York to Chicago	Per cent of rates to or from New York
110 per cent	$62\frac{1}{2}$
Over 100 to and including 110 per cent	$64\frac{1}{2}$
Over 110 to and including 117 per cent	$66\frac{1}{2}$
Over 117 to and including 125 per cent[1]	$72\frac{1}{2}$

[1] Except that between points listed in footnote 2 of Table 38 and Western Termini the rates are $66\frac{1}{2}$ per cent of those to or from New York. But on westbound traffic, to all points in said footnote, except Cairo, Ill., Henderson and Owensboro, Ky., and Thebes, Ill., rates are made 72 per cent of New York-to-Chicago rates.

Rates between the percentage points shown in Table 39 and the Western Termini Points are, as before stated, based on the rates applicable either from or to New York. That is, if the rates were desired from Buffalo to Springfield, Ill., the basing rates would be the rates on the same commodity from New York to Springfield. Whereas if the rates were desired in the opposite direction, the rates from Springfield to New York would be employed in connection with the percentages.

It will be recalled that the rates on live stock to eastern cities from percentage groups lying west of the Indiana-Illinois state line were made certain arbitraries over the rates on like traffic from Chicago to the same eastern cities. For example, the rate from St. Louis, a 117 per cent point, to New York on horses would be made by adding a 5-cent arbitrary to the basing rate of 74 cents, resulting in 79 cents as the rate from East St. Louis to New York, and if, under the foregoing, it were desired to construct the rate on horses to the Western Termini Points, the commodity rate being higher than 26.3 cents, the formula in Table 38 would be employed, and as a final result, 50.95 cents, or 51 cents would be obtained as the rate on horses from East St. Louis to any of the Western Termini Points.

If, on the other hand, a commodity rate were established between Chicago and New York which was less than the 26.3 cents per 100 pounds, Table 39 would be used. Consequently, in the construction of commodity rates, two things must be borne in mind, namely, the basing rate and the direction of the movement.

If a commodity rate is authorized between Chicago and the Western Termini of trunk lines as a basing rate which is not the same as the established class rate between the same points, the same percentage of reduction is made between other points taking 100 per cent or less, on the one hand, and Western Termini Points on the other, as between Chicago and the Western Termini. If, however, a duly authorized commodity rate is made applicable only between specified points and not as a basing rate, it is not applied to or from the Western Termini Points. It might so happen, for example, that there be a movement of a certain class of traffic or of a certain commodity to only one of the termini points and there is no logical reason therefore to extend its application to other termini points thereby burdening the tariff

publications of the carriers with a lot of unnecessary or ''paper'' rates.

Rates on Grain and Grain Products

To feed the industrial population of this district, vast quantities of foodstuffs are required, and rather than establish a special adjustment to the Western Termini Points, rates on both grain and grain products are made, to a great extent, with relation to existing class rates, the authorized basis being, at this time, that on both grain and grain products rates are to be 86.66 per cent of the existing sixth-class rate from the same point of origin to destination. In some few instances, specific rates on a lower basis are established by carriers to off-set the disadvantage of location in so far as one or more of the mills on their line may be concerned, which as a general rule, will be found to be on the basis set forth above.

Rates on Live Stock and Dressed Meats

Likewise no formula is announced for the construction of rates on live stock or dressed meats, rates applicable thereon being made in accordance with the principles obtaining in the class-rate adjustments. Rates are established from some of the primary markets, such as Cincinnati, Indianapolis, Chicago, and St. Louis which, in some cases, in accordance with the mileage scale prescribed by the Interstate Commerce Commission, are slightly lower than the rates that would obtain under the application of the classification basis.

Rates on Iron and Steel Articles

As to these articles, this district is a producer rather than a consumer, although quantities of crude iron, etc., are transported through Official Classification Territory

for smelting and working. No general basis has been
authorized for the construction of rates, and as a gen-
eral rule, the general commodity adjustment is applied,
except in such instances where it is necessary to estab-
lish specific rates to overcome competitive influences.

RATES TO POINTS ADJUSTED WITH REFERENCE TO WESTERN
TERMINI POINTS

As before stated, while many points in this district
have been accorded the termini adjustment, there are
other points the location of which is such as not to war-
rant the application of the termini adjustment proper,
and as a result, rates thereto or therefrom are made on
an arbitrary relationship, the arbitrary indicating, as far
as it is possible by this medium, the disadvantage of
location.

Within recent years, additional groups have been
established by several of the trunk lines, among the more
important of which may be mentioned, Belle Vernon,
Bessemer, Blairsville, Connellsville, Crabtree, Driftwood,
Du Bois, Elizabeth, Indiana, Johnstown, Kittanning,
Lekrone, and Oil City, Pa.

To illustrate the present adjustment of rates to some
of these points, it is well to consider the current basis as
set forth in the bases for rate construction to points in
these groups as announced by the terminal lines.[1]

In announcing this adjustment, the terminal lines,
through the medium of the Central Freight Association,

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[1] The following data (except for Blairsville, Driftwood, DuBois, Kittan-
ning, and Oil City) is taken from Circular No. 785 issued by the Baltimore
& Ohio Railroad and is authentic only as to the interest of the issuing com-
pany. The exceptions are covered by the provisions of Circular No. 10
issued for the Pennsylvania Lines West of Pittsburgh, by Eugene Couffer,
Chief of Tariff Bureau, and the same statement as to authenticity is
applicable in this connection, the two issues conflicting in minor detail.

divided the territory, as to points of origin, into two groups, which are defined as follows: Group A—all points east of a line drawn from Sandusky through Monroeville, Chicago Junction, Plymouth, Shelby, Mansfield, Mount Vernon, Newark, Thornville, New Lexington, Corning, and Athens, Ohio, to the Ohio River at Pomeroy (See Map 4 *Atlas of Railway Traffic Maps*). Group B— all points on and west of the above line.

Belle Vernon, Pa.—From points in group A, specific rates have been named, these rates to a great extent respecting the distance principle employed in establishing rates from and to western termini points under the application of the Central Freight Association scale.

Commodity rates are such as are announced in Central Freight Association circulars issued from time to time.

From group B, Pittsburgh rates should be applied to Belle Vernon, Pa., on both classified and commodity traffic.

Bessemer, Pa.—The same basis of rates is applicable to this point as obtains to Belle Vernon.

Blairsville, Pa.—From points in group A, such class and commodity rates as are announced through the Central Freight Association from time to time will be applied.

From group B, class and commodity rates will be established by the addition of the following arbitraries in cents per 100 pounds governed by the same minimum weight, classification rating, and rules and regulations, or exceptions thereto, as apply to the rate to Pittsburgh:

						Iron & Steel Articles	
Classes ... 1	2	3	4	5	6	C. L.	L. C. L.
Rates 7½	5½	3½	3	2½	2	1½	2

The Baltimore rates are to be observed as maximum rates except on traffic originating south of the Ohio River and east of that portion of the Mississippi River extend-

ing from Cairo, Ill., to New Orleans, La. On such traffic, there will be no deviation from the basis shown.

Connellsville, Pa.—From group A, class and commodity rates will be as named in Central Freight Association circulars issued from time to time. In the absence of such rates, commodity rates will be made by the addition of the arbitraries shown below, applying from group B to the rates current to Pittsburgh, Pa.

From group B, rates will be established by the addition of the following arbitraries, in cents per 100 pounds, governed by the same minimum weight and classification rating, and rules and regulations or exceptions thereto, as apply over the rates to Pittsburgh:

							Iron & Steel Articles	
Classes 1	2	3	4	5	6	C. L.	L. C. L.	
Rates 5	4	3	2	2	2	1½	2	

Cumberland, Md., rates to be observed as maximum.

Driftwood, Pa.—From group A, class and commodity rates will be as named in Central Freight Association circulars issued from time to time.

From group B, class and commodity rates will be established on same basis as maintained from the same points of origin to Baltimore, Md.

Du Bois, Pa.—From group A, class and commodity rates will be as named in Central Freight Association circulars issued from time to time, except that from certain points in 60 per cent territory, the current rate from the same point to Buffalo, N. Y., will be applied to Du Bois, Pa.

From group B, class and commodity rates will be the same as those currently maintained and in effect to Rochester, N. Y.

Elizabeth, Pa.—From group A, class and commodity rates will be as named in Central Freight Association circulars issued from time to time.

From group B, such rates as are currently in effect and apply to Pittsburgh will be applied to Elizabeth.

Grafton, W. Va.—From group A, class and commodity rates will be as announced in Central Freight Association circulars issued from time to time.

From group B, class and commodity rates will be established by the addition of the following arbitraries in cents per 100 pounds, governed by the Official Classification to the rates currently in effect to Pittsburgh:

Classes .	1	2	3	4	5	6	Iron & Steel Articles	
							C. L.	L. C. L.
Rates ...	5	4	3	2	2	2	1½	2

observing rates from the 60 per cent group to Baltimore as minimum rates.

Indiana, Pa.—From group A, class rates will be as named in Central Freight Association circulars. Commodity rates will be made the arbitraries noted below in addition to the current rates applicable to Pittsburgh, Pa.

From group B, class and commodity rates will be the Pittsburgh rates plus the following arbitraries in cents per 100 pounds:

Classes .	1	2	3	4	5	6	Iron & Steel Articles	
							C. L.	L. C. L.
Rates ...	10	8	6	5	4	3	1½	2

the Cumberland rates to be observed as maximum rates.

Johnstown, Pa.—From group A, class rates will be as named in the circulars of the Central Freight Association issued from time to time. Commodity rates will be the arbitraries noted below in addition to. the rates current to Pittsburgh, Pa.

From group B, class and commodity rates will be the Pittsburgh rates plus the following arbitraries in cents per 100 pounds:

Classes .	1	2	3	4	5	6	Iron & Steel Articles	
							C. L.	L. C. L.
Rates ...	10	8	6	5	4	3	1½	2

the Baltimore rates to be observed as maximum rates.

Kittanning, Pa.—From group A, class and commodity rates will be as announced in Central Freight Association circulars issued from time to time.

From group B, the rates currently in effect to Pittsburgh, Pa., will be applied to Kittanning, Pa.

Lekrone, Pa.—From points in group A, class and commodity rates will be the same as those announced in Central Freight Association circulars issued from time to time. Commodity rates will be the arbitraries noted below in addition to the rates currently in effect to Pittsburgh, Pa.

From group B, class and commodity rates will be established which are the Pittsburgh rates plus the following arbitraries in cents per 100 pounds:

							Iron & Steel Articles	
Classes .	1	2	3	4	5	6	C. L.	L. C. L.
Rates ...	5	4	3	2	2	2	$1\frac{1}{2}$	2

the Cumberland rates to be observed as maximum rates.

Oil City, Pa.—From group A, class and commodity rates will be the same as those announced in Central Freight Association circulars.

From group B, class and commodity rates will be the same as those established from Buffalo, N. Y., observing the rates from the same point of origin to Pittsburgh, Pa., as minimum.

Rules Governing the Arbitraries Upon Articles Taking Special Commodity Rates to the Foregoing Base Points

(1) If the special or commodity rate is the same as the class rate between the same points, the arbitrary for such class rate will apply to the special or commodity rate.

(2) When the special or commodity rate is not the same as the standard class rate between the same points, the arbitrary to be used will be that applying to the class which the special or commodity rate most nearly approximates.

(3) When the special or commodity rate as nearly approximates one class as another, the arbitrary for the next higher class will be used.

(4) Where the arbitrary is the same to all classes, rates on articles classified higher than first class shall be constructed by using the Official Classification to the basing point and adding thereto the arbitrary.

(5) The foregoing rules will apply only where the specific arbitrary has not been provided.

Grain and Grain Products.—No special basis has been announced in connection with the construction of rates applicable on grain and grain products, and under the provision of the foregoing rule, rates to these points are constructed by the addition of the regular classification basis, as for example, rates to Grafton on grain and grain products will be made 2 cents over the Pittsburgh rate, Connellsville 2 cents, and Johnstown 3 cents above.

Live Stock.—Exceptions to the foregoing basis have been announced in connection with the transportation of live stock, and as specific arbitraries are not provided, the following class arbitraries will be used:

Horses and mules	Class 2
Sheep and calves	Class 3
Hogs	Class 4
Cattle	Class 5

Rates to Chesapeake & Ohio Railway Stations.—Chesapeake & Ohio Railway also maintains some arbitrary adjustments with respect to points on its line which are made with respect to rates established to Ashland, Ky. The more important points are Huntington, Charleston, and Gauley Bridge, W. Va.

If a commodity rate, for example, be established from Chicago to Pittsburgh that is not the same as an established class rate from the same point of origin and if a corresponding reduction below the established class rate is to be made from all other Central Freight Association points, the same percentage adjustments are to be made

to Huntington, Charleston, Gauley Bridge, and Parkers-
burg as are made to Pittsburgh from the same points of
origin; that is, if a commodity rate of 25.2 cents is estab-
lished from Chicago to Pittsburgh on an article classified
as first-class in the Official Classification and the rates
are to be established on a corresponding basis from other
points in Central Freight Association Territory, the
rates from the same points of origin to Charleston, Gau-
ley Bridge, Huntington, and Parkersburg are reduced
relatively.

From some percentage points taking higher than the
100 per cent basis, the rates are not based directly on
the rates from Chicago to New York but are made by
adding arbitraries to the Western Termini rates as illus-
trated in the preceding adjustment.

In connection with group A, it has not been possible
to tabulate the many rates authorized by the Central
Freight Association on classified traffic in a treatise of
this character, since to do so would virtually amount to
a reproduction of all of the tariffs obtaining in this par-
ticular territory which would serve no particular end and
unduly burden the treatise.

A comparison of the bases set forth in these chapters
with tariff publications of the carriers shows that to a
very great degree the bases authorized are not disre-
garded but generally observed throughout the territory.

CHAPTER XXIV

SPECIAL ADJUSTMENTS

The Virginian Railway

The location of this line is such that it might reasonably be inferred that it could be governed, as far as its rates and fares are concerned, by the Southern Classification. Owing to the fact that it must compete for traffic, of which there is a considerable volume, with both the Chesapeake & Ohio Railway and Norfolk and Western Railway to and from the Virginia ports, it is necessary for it to apply the same medium and to adjust its rates on the same general basis as obtains in connection with the other roads.

The local traffic of the line consists largely of coal, a great portion of which is shipped to tidewater for export or for distribution by means of vessel throughout the entire Atlantic Coast.

The latest available statistics of the Interstate Commerce Commission indicate that this line carried 4,410,-622 tons of revenue freight, the average return per ton per mile being .00343 cents, which is considerably less than the average for all railroads in the country (which is slightly in excess of 7 mills).

Coal needs low rates to stimulate its movement, and it is not surprising therefore that, as far as classified traffic is concerned, this road establishes the rates to the greater part of its line on local traffic on a somewhat higher basis than obtains with respect to business destined to competitive points, or to Virginia Gateways on business destined beyond.

For the purpose of enabling the reader to follow the adjustments, the map showing the location of this line and the stations thereon, has been incorporated in the treatise.

The basis to Virginian Railway stations as announced in Table 40 is set forth geographically, beginning at the western terminus, Deepwater, Va. It will be noted there are really two distinct bases—that for the percentage territory lying west of the Cleveland-Marietta-Belpre line as described in footnote 1 under Table 40 and that for the percentage territory lying east of the line.

To Roanoke, Norfolk, Sewalls Point, and Suffolk from all the territory both east and west of the lines mentioned, the rates are naturally the rates to Virginia Cities since these points constitute part of the groups known as "Virginia Common Points."

To Alberta, Brookneal, Jarratt, and Meherrin, Va., on shipments which are destined to southern points beyond, the rates to Virginia Cities are applied as proportional rates from the percentage territory which lies west of the lines described in footnote 1 under Table 40, including points which are located directly on that line. From points in the percentage territory lying east of the Cleveland-Marietta-Belpre line to other points on the Virginian Railway except (a) points east of Roanoke to, and including, Altavista and (b) points east of Altavista through, but not including, Suffolk, Va., and to, but not including, Norfolk, the rates are the same as currently applicable to those destinations from Baltimore, Md. To points covered by the last two exceptions noted above, the rates are made on the basis outlined in Table 40. It will be noted that this basis includes Alberta, Brookneal, Jarratt, and Meherrin, named above, on local shipments.

From points on the Cleveland-Marietta-Belpre line and from the percentage territory lying west thereof, the
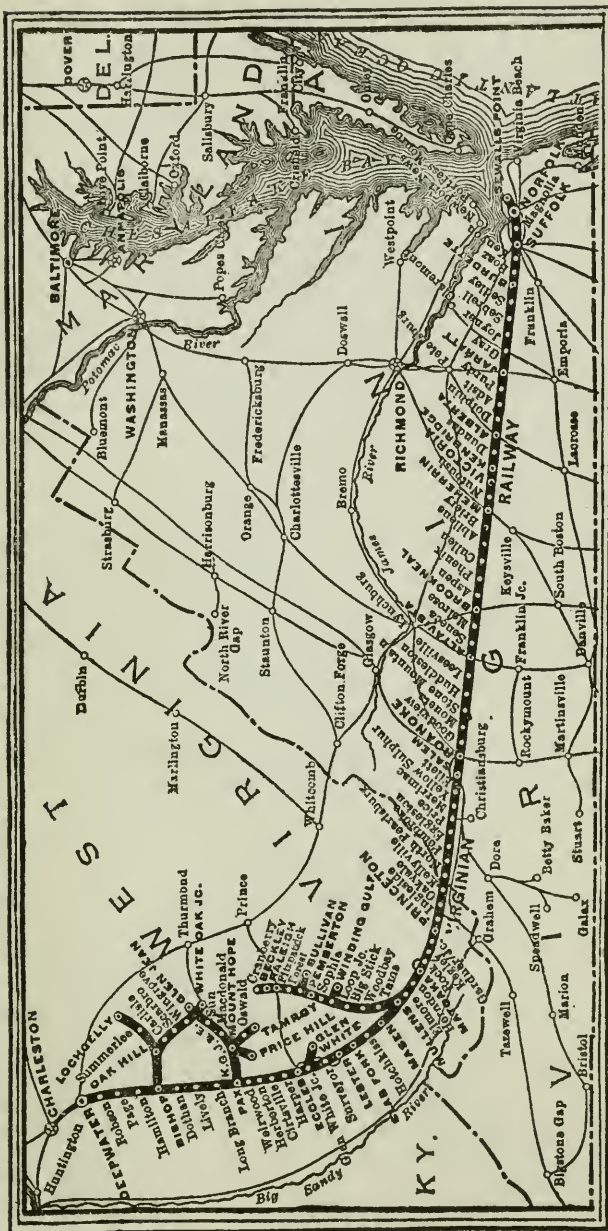
same rates are made to Salem and to points east of Roanoke to, and including, Altavista, Va., as are made to Virginia Cities, while to other points the rates are made certain arbitraries in excess thereof, as noted in items 1, 2, and 6 of Table 40.

There are exceptions to the application of the basis set forth in Table 40. For example, in applying the rate basis in Table 40 on various commodities, it will be found through published tariffs, that on several commodities, such as bleach, brick, calcium chloride, sulphate, paper filler, soda ash, etc., the full sixth-class rate is charged owing to notice served by the terminal Virginia lines that they will not join in a lower basis, this rate being observed as a minimum rate.

This condition governs also rates on salt from wells in Michigan and Ohio, and a further condition governs rates on this commodity named proportionally to Virginia Gateways, such as Alberta, Brookneal, Jarratt, and Meherrin. These commodity rates are lower than the sixth-class rates (but somewhat higher than the rates to Virginia Cities, announced in item 7 of Table 40) because they are made necessary through competition with wells in the state of New York from which rates are based on

TABLE 40

Basis for Rates from Percentage Groups on Map 4 to Stations on the Virginian Railway

Item	To Stations	From Points in Percentage Territory	Arbitraries in Cents per 100 Pounds Classes						Remarks
			1	2	3	4	5	6	
1	First station south of Deep Water, W. Va., to, and including, Lester, W. Va.	On and *west* of the Cleveland-Marietta-Belpre line[1]	^{2}6	5	4	3	2	2	Over rates to Virginia Cities
		East of Cleveland-Marietta-Belpre line[1]							Rates currently applicable from Baltimore to same destinations

TABLE 40—Continued

BASIS FOR RATES FROM PERCENTAGE GROUPS ON MAP 4 TO STATIONS ON THE VIRGINIAN RAILWAY

ITEM	TO STATIONS	FROM POINTS IN PERCENTAGE TERRITORY	ARBITRARIES IN CENTS PER 100 POUNDS Classes 1 2 3 4 5 6	REMARKS
2	*South* and *east* of Lester, W. Va., to, but *not* including, Salem, Va.	On and *west* of the Cleveland-Marietta-Belpre line[1]	[2]12 10 8 7 6 5	Over rates to Virginia Cities
		East of Cleveland-Marietta-Belpre line[1]		Rates currently applicable from Baltimore to same destinations
3	Salem, Va.	On and *west* of the Cleveland-Marietta-Belpre line[1]		Rates to Virginia Cities
		East of Cleveland-Marietta-Belpre line[1]		Current rates from Baltimore to Salem
4	Roanoke, Va.	All points in Central Freight Association Territory		Rates to Virginia Cities
5	*East* of Roanoke, Va., to, and including, Altavista, Va.	On and *west* of the Cleveland-Marietta-Belpre line[1]		Rates to Virginia Cities
		East of Cleveland-Marietta-Belpre line[1]	[3]20 16 13 11 9 8 (Classes) A B C D E F H 7 8 7 7 9 14 11	Over current rates to Virginia Cities
6	*East* of Altavista, Va., through, but *not* including, Suffolk, Va., to, but *not* including, Norfolk, Va. (See item 7 for proportional basis to Alberta, Brookneal, Jarratt, and Meherrin, Va.)	On and *west* of the Cleveland-Marietta-Belpre line[1]	[2]12 10 8 7 6 5	Over rates to Virginia Cities
		East of Cleveland-Marietta-Belpre line[1]	[3]20 16 13 11 9 8 (Classes) A B C D E F H 7 8 7 7 9 14 11	Over current rates to Virginia Cities

TABLE 40—Continued

BASIS FOR RATES FROM PERCENTAGE GROUPS ON MAP 4 TO STATIONS ON THE VIRGINIAN RAILWAY

ITEM	TO STATIONS	FROM POINTS IN PERCENTAGE TERRITORY	ARBITRARIES IN CENTS PER 100 POUNDS Classes 1 2 3 4 5 6	REMARKS
7	Alberta .....Va. Brookneal ...Va. Jarratt ......Va. Meherrin ....Va. on shipments destined bevond.	On and *west* of the Cleveland-Marietta-Belpre line[1]		Rates to Virginia Cities[4]
8	Norfolk .....Va. Sewalls Point,Va. Suffolk .....Va.	*All* points in Central Freight Association Territory		Rates to Virginia Cities

[1] Description of Cleveland-Marietta-Belpre line: Beginning at, and including, Cleveland, Ohio; thence via, and including points on the Pennsylvania Lines West of Pittsburgh to, and including, Hudson, Ohio; thence via, and including points on, the C. A. & C. Ry. to, and including, Akron, Ohio; thence via, and including points on, the B. & O. R. R. to, and including, Canton, Ohio; thence via, and including points on, the B. & O. R. R. to, and including, Valley Junction, Ohio; thence via, and including points on, the lines of the Pennsylvania Lines West of Pittsburgh to, and including, Canal Dover, Ohio; thence via, and including points on, the B. & O. R. R. to Uhrichsville, Ohio; thence via, and including points on, the P. C. C. & St. L. Ry. to, and including, New Comerstown, Ohio; thence via, and including points on, the lines of the Pennsylvania Lines West of Pittsburgh to, and including, Marietta, Ohio; thence via, and including points on, the B. & O. S. W. R. R. to, and including, Belpre, Ohio.

[2] Governed by Official Classification or exceptions thereto.

[3] Governed by Southern Classification.

[4] Rates to Virginia Cities will be applied proportionally to Alberta, Brookneal, Jarratt, and Meherrin, Va., only on shipments destined to points named in Agent J. J. Cottrell's Tariff I. C. C. No. 66 (Carolina Basing Tariff No. 3) and supplements thereto or reissues thereof.

specifics to the Virginia Gateways when shipments are destined to the southeastern territory involved.

Wherever the rates from the percentage points west of the line (referred to above) to Deepwater plus the local rates from Deepwater to stations on the Virginian Railway lying west of Salem make lower rates than on the regular basis, the lower rates will apply.

It will be noted that the rates are made on a combination basis, using the rates to Virginia Cities as basing factors and adding thereto the arbitraries specified in the various items of the table.

Since the Virginian Railway lies between two rate adjustment territories, this is a natural consequence. It is extremely interesting to the rate student to note the blending of the two systems. Where the rates from percentage territory to points on the Virginian Railway are made on the rates to Virginia Cities plus the arbitraries, the resulting through rates are usually less than the combination rates breaking on the Virginia Gateways.

Taken as a whole, it is but natural and just to accord to these stations lying within Trunk Line Territory and Southern Territory, rates neither so high as the combination rates to southern points, nor so low as the rates to Virginia Cities. This adjustment will bring out the non-observance on the long-and-short-haul clause as concerns local points on this line. The carriers justify procedure under the competition that exists on the more important junction points not found at the other points on the line.

CHAPTER XXV

SPECIAL ADJUSTMENTS—Continued

RATES BETWEEN POINTS EAST OF THE WESTERN TERMINI
AND ST. PAUL, MINN., AND POINTS WEST OF
LAKE MICHIGAN

In the preceding chapters the various rail rates based
on the New York-Chicago percentage system have been
explained. The rates to and from percentage territory,
shown on Maps 3 and 4, *Atlas of Railway Traffic Maps,*
applicable on local shipments have been set forth. In
addition to these local rates moving between percentage
territory on the west and points east of the Western
Termini, there is also a large movement of freight be-
tween points lying west of Lake Michigan, west of the
Mississippi and the Missouri rivers, and south of the
Ohio and the Potomac rivers, that moves on proportional
rates applying within the New York-Chicago territory.
A notable example of this is the proportional rate apply-
ing east of Chicago, Chicago Junctions, and Lake Michi-
gan on shipments between the Atlantic seaboard, on the
one hand, and points grouped with St. Paul, Minn., on
the other.

(a) Westbound

The rates from the Atlantic seaboard territory to St.
Paul, Minneapolis, Minnesota Transfer, Duluth, Minn.,

and points taking the same rates are based on the rates
from the Atlantic seaboard points to Chicago, plus pro-
portional rates shown in Table 41 applying on the portion
of the haul west of Chicago. The proportional rates

TABLE 41

BASIS FOR RATES FROM ATLANTIC SEABOARD POINTS EAST OF THE
WESTERN TERMINI OF TRUNK LINES TO ST. PAUL, MINNE-
APOLIS, MINNESOTA TRANSFER, DULUTH, MINN., SUPERIOR
AND ASHLAND, WIS., AND STATIONS TAKING SAME
RATES AS NAMED IN TARIFFS OF THE
INDIVIDUAL LINES

ITEM	WHEN FROM	To	PROPORTIONAL RATES APPLYING WEST OF CHICAGO①					
			IN CENTS PER 100 POUNDS					
			Classes					
			1	2	3	4	5	6
1	All points named in eastern lines' tariffs, except the Syracuse group.②	St. Paul, Minneapolis, Minnesota Transfer, and Duluth, Minn.③	40	34	26	18	16	13
2	Syracuse group.	St. Paul, Minneapolis, Minnesota Transfer, and Duluth, Minn.③	42	34	26	18	16	13

①Governed by the Official Classification.
②The Syracuse group is shown on Map 9 of the *Atlas of Railway Traffic Maps*.
③And stations taking the same rates as provided in eastern lines' tariffs.

shown in item 1 of Table 41 apply west of Chicago, Chi-
cago junctions, Kankakee, Bloomington, Peoria, and cer-
tain lake ports on shipments from eastern groups east of
the Syracuse group. On shipments from the Syracuse
rate points the proportional rates applying west of
Chicago, etc., are shown in item 2 of the table. They are

the same as those from other groups except on the first class, in which case the rates are 2 cents higher than the proportion applying over the same part of the route from other eastern groups. It should not be concluded from this, however, that the first-class rate from the Syracuse group to St. Paul is higher than that from New York to St. Paul. The rates from the Syracuse group to Chicago are only 70 per cent of the rates from New York to Chicago. The rate on first-class freight is only 63 cents. The first-class rate from Syracuse to St. Paul is therefore 63 cents plus 42 cents, or only 105 cents, which is 25 cents less than the rate from New York to St. Paul.

From points east of the Western Termini, shown in the groups of Map 9, to Albert Lea and points grouped therewith, and also to points on the Chicago Great Western Railroad shown in section 2 of Table 42 the rates are arbitraries over the rates from the same groups to St. Paul. These arbitraries are shown in Table 42. The arbitraries applying to Albert Lea and other points grouped therewith are a 15-cent scale, while those applying to Mankato are a 20-cent scale.

Table 43 shows the rates applying on the part of the haul east of Chicago and other junctions and on the portion west of Chicago, and on through rates on shipments from eastern groups, Map 9, to St. Paul, Albert Lea, and Mankato, each of which is taken as representing a group of stations. It may be seen that the rates from New York to St. Paul are a 130-cent scale. The rates from New York to Albert Lea and points taking the same rates are a 145-cent scale, and the rates from New York to the Mankato group are a 150-cent scale. The scales of rates presented in Table 43 are merely illustrative of the rates from the other eastern groups to the three groups specified. From Syracuse, Cumberland, and other eastern groups the rates are less, but they are made up of the rates to Chicago plus the proportional

rates shown in Table 41. The rates from all eastern groups, shown on Map 9, to St. Paul, Albert Lea, Mankato, and other points taking the same rates are made up of the local rates from the eastern groups to Chicago, and the proportional rates and arbitraries, shown in Tables 41 and 42, applying west of Chicago and other junctions.

TABLE 42

ARBITRARIES OVER ST. PAUL RATES APPLYING FROM ATLANTIC SEABOARD TO GROUPS SPECIFIED

To	ARBITRARIES IN CENTS PER 100 POUNDS							
	Classes						Canned fish, fruits, meats, and vegetables C. L.	Commodities except canned fish, fruits, meats, vegetables, sugar, and coffee C. L.
	1	2	3	4	5	6		
Albert Lea.....Minn. Austin ....Minn. Faribault .....Minn. Hastings ......Minn. Le Roy........Minn. Owatonna .....Minn. Rochester .....Minn. Waseca ....Minn. Zumbrota .....Minn.	15	12	10	7	4	4	4	Class arbitraries
Mankato ......Minn.	20	17	13	9	6	6	6	Class arbitraries
Chicago Great Western Railroad stations named below Douglas ....Minn. Judge ....Minn. Lena ....Minn. Le Roy........Minn. Ostrander .....Minn. Pine Island....Minn. Racine ....Minn. Simpson ......Minn. Spring Valley..Minn. Stewartville ...Minn. Zumbrota .....Minn.	15	12	10	7	4	4	4	Class arbitraries

The rates from the eastern groups to points west of Lake Michigan, south of Lake Superior, and east of Du-

TABLE 43

THROUGH CLASS RATES FROM NEW YORK TO ST. PAUL, ALBERT
LEA, AND MANKATO, MINN.[1]

ITEM	To		RATES IN CENTS PER 100 POUNDS					
			Classes					
			1	2	3	4	5	6
1	St. Paul, Minn.	N. Y.-Chicago	90	79	60	42	36	30
		Chicago-St. Paul	40	34	26	18	16	13
		Through	130	113	86	60	52	43
2	Albert Lea, Minn.	N. Y.-Chicago	90	79	60	42	36	30
		Chicago-Albert Lea	55	46	36	25	20	17
		Through	145	125	96	67	56	47
3	Mankato, Minn.	N. Y.-Chicago	90	79	60	42	36	30
		Chicago-Mankato	60	51	39	27	22	19
		Through	150	130	99	69	58	49

[1]The rates east of Chicago and the proportional rates west of Chicago are
governed by the Official Classification and exceptions.

luth and St. Paul are made in relation to the St. Paul
rates or are arbitraries over the rates to Chicago or the
Lake Michigan ports. The rates from the eastern groups
to certain points on the west bank of Lake Michigan are
the same as from the same groups to Chicago. That is,
certain points on the west bank of Lake Michigan are
accorded the 100 per cent rates. The rates to other points
immediately west of the western shore of Lake Michigan
are arbitraries over the Chicago rates, while to points
farther west and to points south of Lake Superior the
rates are either arbitraries over the Chicago rates with
the St. Paul rates as maxima, or in some cases are higher
than the St. Paul rates by certain arbitraries. For rates
from C. F. A. Territory the area lying south of Lake
Superior and west of Lake Michigan is grouped into the
following territories: The Duluth-St. Paul, the Winona,
the New London, Wis., the Marquette-Michigamme,
Mich., and the Hancock-Houghton groups.

(b)   Eastbound

The rates from territory lying south of Lake Superior
and west of Lake Michigan, as far west as the St. Paul

group, to points east of Lake Michigan and the Illinois-
Indiana state line are made on combinations breaking
on Chicago, Chicago junctions, Peoria junctions, and
lake ports. However, there are no proportional rates,
as in the case of the westbound rates applying west of
Chicago and the lake ports. The rates are made up of
the local rates from point of origin to Chicago or the
other junctions indicated and the rates east of those
junctions. The western proportion is governed by the
Western Classification to the Chicago junctions or lake
ports, while the rates east of Chicago and other points
are governed by the Official Classification. From St.
Paul to Chicago, for example, the rates are the following
scale:

Classes	1	2	3	4	5	A	B	C	D	E
Rates	60	50	40	25	20	25	20	17	14	13

In a few cases the combinations are made on interior
C. F. A. or eastern points, such as Toledo, Ohio, or Buf-
falo, N. Y.

This 60-cent scale applies on classes from St. Paul to
Chicago as a proportion of a thorough rate to eastern
points instead of the 40-cent scale governed by the Offi-
cial Classification, shown in Table 41, on through west-
bound rates. The rates from St. Paul to Chicago, shown
above, are the local rates. From the other groups south
of Lake Superior and west of Lake Michigan to C. F. A.
points and eastern groups, the rates are made in rela-
tion to the St. Paul rates.

RATES BETWEEN TRANS-MISSISSIPPI TERRITORY AND POINTS EAST OF THE WESTERN TERMINI

Between points in Trans-Mississippi Territory [1] and
points east of the Western Termini, rates are made on

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[1] Map 1 of the *Atlas of Railway. Traffic Maps.*

combinations breaking on the Mississippi River, on St.
Paul, or on the Missouri River. When rates break on
the Mississippi River the rates east of the river are the
same as the St. Louis rates. The St. Louis rates are
those for the 117 per cent group. That is, on all ship-
ments between points east of the Western Termini and
points in Trans-Mississippi River Territory that pass
through the Mississippi River Crossings (St. Louis to
Dubuque, inclusive) the rates are the 105.5-cent scale—
the St. Louis rates.

Rates from C. F. A. Territory to Mississippi Valley Points

The rates from Central Freight Association Territory
to specified Mississippi Valley points are based under or
over the rate from St. Louis, Mo., or Louisville, Ky., to
the same points of destination. To the specified Missis-
sippi Valley points the rates from St. Louis, Mo., are the
same as from Louisville, Ky.

The rates from Central Freight Association Territory
to Mississippi Valley points are governed by the South-
ern Classification and are contained in C. F. A. Tariff
No. 15 Series, published by E. Morris, Agent. The differ-
entials or arbitraries under or over the St. Louis-Louis-
ville rates used in arriving at the through rates from the
several C. F. A. groups are shown in Table 44. Some of
the representative Mississippi Valley points are Gulf-
port, Miss., Memphis, Tenn., Mobile, Ala., New Orleans,
La., and Pensacola, Fla.

Rates from Points East of the Illinois-Indiana State Line to Points in Green Line Territory

From points in the states of Indiana, Ohio, and Michi-
gan to points in Green Line Territory (Map 5) the rates
are based on the rates fixed by the southern lines from
the Ohio River Crossings, Hagerstown, Md., Strasburg
Junction, Va., Shenandoah Junction, W. Va., Potomac

TABLE 44

Bases for Rates from Central Freight Association Territory to Mississippi Valley Points—Differentials or Arbitraries Over or Under the St. Louis-Louisville Rates ①

Group No.	To Mississippi Valley Points From	In Cents per 100 Pounds — Classes												Per Bbl.
		1	2	3	4	5	6	A	B	C	D	E	H	F
1	Evansville (under St.L.-L.)..	3	3	3	2	2	2	2	2	2¼	2	2	3	5
2	Vincennes.................	No Arbitraries (apply same rates)												10②
3	Indianapolis.........(over)	10	10	10	5	5	5	5	5	5	5	4	7	10②
4	Ft. Wayne-Columbus.. "	20	15	10	8	7	6	6	6	6	6	5	8	12
5	Detroit-Toledo....... "													
6	Cleveland........... "	26	20	14	11	9	8	8	8	8	8	7	11	16
7	Buffalo-Pittsburgh.... "													
8	Howard City......... "	31	24	17½	13½	10½	9	9	9	9	9	8	12	18
9	Owendale........... "	32	25	18	14	11	10	10	10	10	10	9	13	20
10	Clare............... "	35	28	21	16	13	10½	10½	10½	10½	10½	9½	13½	21
11	Cadillac............. "	37	29	21	16	13	11	11	11	11	11	10	14	22
12	Traverse City........ "	43½	35	25½	19	15	13	13	13	13	13	12	16	26
13	Cheboygan........... "	46	37	28	21	17	14	14	14	14	14	13	17	28
14	Manistique③......... "	23	17½	12	9½	8	7	7	7	7	7	6	9	14
15	Kentucky④.......... "	20	18	16	10	8	7	6	7	5	5	7	10	10

①The rates are governed by the Southern Classification.
②New Orleans: 8, 8, 8, 4, 4, 3, 4, 2, 2, 3, 4, 4.
③Applicable only on traffic originating beyond.
④New Orleans, only; Memphis, 22, 20, 18, 11, 9, 8, 8, 8, 8, 8, 8, 13, 16.

Yards, D. C., Baltimore, Md., and the Virginia Gateways plus the established rates from points of origin to said crossings and gateways.

From Western Termini and points grouped therewith to Green Line Territory the rates are also made up of the rates south of the Ohio River Crossings and other gateways mentioned above, plus the rates from the Western Termini to those crossings and gateways. However, these rates cannot exceed the all-rail rates from New York to the same points in Green Line Territory by more than the following differentials:

Classes	1	2	3	4	5	6
Rates	15	13	11	9	7	6

Rates between Western Termini and southern points may also break on the South Atlantic ports. Where

rates are made through the South Atlantic ports the following basing rates from the Western Termini to Charleston, Savannah, and Brunswick are used.

Classes	1	2	3	4	5	6
Rates	95	80	75	70	58	46

All-rail rates to Charleston, Savannah, and Brunswick proper are observed as minima to points of destination through these ports.

In constructing through rates on the combinations through the Virginia Gateways and the Ohio River Crossings the first six classes of the Southern are used as equivalent to the six classes of the Official, and the lettered classes of the Southern Classification are assimilated as follows with Classes 4, 5, and 6 of the Official:

Southern Classification, Class	A	B	C	D	E	H		F
Equivalent to								
Official Classification, Class...	6	6	6	6	5	4		twice-sixth class

The through rates on commodities not covered by published tariffs are made not higher than combinations of established rates to the Ohio River Crossings and Virginia Cities plus the full rates south of such crossings and Virginia Cities. The through rates constructed on the combination of the rates north and south of the crossings and the gateways are governed by the Southern Classification, except that to the territory of the associated railways of Virginia and the Carolinas the associated railways' exceptions are applied. When commodity rates are made on combinations they are subject to class rates as maxima, except on petroleum and its products.

Rates on classes and commodities from points in Buffalo-Pittsburgh Territory to points in Florida on, and south of, the Jacksonville-Lake City-Live Oak Line (ex-

cept to Jacksonville, Fla., and group) are made on the
Virginia Cities, the Ohio River, or the Jacksonville com-
bination, whichever makes lower. If rates are made by
combination on Ashland, Ky., or Kenova, W. Va., in
order to take care of the Chesapeake & Ohio Ry., and
Norfolk & Western Ry., and connections to the South-
east, east of the Chattanooga-Athens-Augusta-Macon-
Carbolt Line, the Cincinnati combination rates will ap-
ply as minima. Via Kenova, W. Va., the Cincinnati
combination is equalized to Southern Ry. Stations from
Atlanta to Brunswick. To destinations west of Atlanta
to Brunswick the Cincinnati combination will be equal-
ized from points on and east of Chicago-Indianapolis-
Cincinnati line only.

CHAPTER XXVI

CANADIAN FREIGHT RATES

Eastern Provincial Rates

The topography and climate of the Dominion of Canada is such that railroad construction has, to a great extent, adhered closely to the international border. A few lines have been constructed east of Winnipeg that penetrate north of 50 degrees latitude, and west of Winnipeg that extend to 55 degrees latitude.[1] The density of population is also greatly less than that throughout the states in general. Consequently, it has been the policy of the Canadian carriers to look beyond their local territory for additional traffic from which to derive their revenue.

In 1853 the Grand Trunk Railway had its American beginning through the leasing of a line from Portland, Me., running northwesterly through the states of Maine and New Hampshire. In the construction of the Grand Trunk Railway as well as other railways in the Dominion, the government has largely assisted by means of subsidies, or land grants, which amount to many thousands of dollars for each mile constructed. To their promoters, the Canadian lines do not represent such an expenditure as is involved in the construction of lines in the United States east of the Mississippi River.

Government ownership is being tested. The Dominion owns several thousand miles of railway, the services of which compare favorably with those rendered by pri-

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[1] See Map 1, *Atlas of Railway Traffic Maps.*

vately owned interests and the properties of which are naturally operated on a high scale of efficiency.

It is not surprising to find that the element of capitalization and density of traffic affects in some degree the measure of transportation charges, as will be disclosed in these chapters, and that the local rates established by the Canadian railways are generally lower (particularly as applied to long hauls) than the rates obtaining for similar distances in this country.

The advance of the Grand Trunk Railway as a factor in the commerce of this country is marked by a substantial reduction in the previously existing rates on certain commodities from New England to western points. For instance, the rate of $1.50 previously prevailing on boots and shoes from Boston to Chicago by way of the Boston & Albany Railroad and its connections was reduced to 50 cents per hundred pounds. So successful was this venture that, at the instance of the mercantile interests of Chicago, an extension of the system from Port Huron, Mich., to Chicago was undertaken and completed in 1880. A similar action was then taken by the Canadian Pacific Railway, which thereby gained an entrance to Duluth and subsequently into St. Paul, Milwaukee, and Chicago.

When lake navigation is closed, the competition of these lines is the most potent factor in influencing the establishment by American railways of a lower standard, or base rate, to or from Chicago. From this it may be seen that practically the entire commerce of the country, whether actually passing over the Canadian routes or not, receives an absolute and direct benefit from Canadian railway competition.

There is no question that when the competition was at its height, the rates named did not bear a fair share of the transportation costs. Indiscriminate and senseless competition, however, has been dispensed with to a great degree through the concession of agreed differentials by

the direct American lines on the one hand and by the
indirect Canadian lines on the other. On this basis, the
Canadian lines are permitted to adjust their rates to cer-
tain figures below the rates obtaining via the standard
all-rail routes. This adjustment, however, will be taken
up in a later part of the chapter devoted to the Canadian
adjustment.

Before the discussion of the international rate adjust-
ment is taken up, it seems appropriate to discuss the
interprovincial and the intraprovincial and the regional
rate structures obtaining within the Dominion of Canada.

It will be noted from the *Atlas of Railway Traffic Maps*
that railroad building in the Dominion has, to a great
extent, in so far as the eastern section of the country is
concerned, followed the natural waterways of that terri-
tory. The maritime provinces, New Foundland, New
Brunswick, and Nova Scotia, all have important ports
which are served by many boat lines affording a cheap
and ready means of distribution. The St. Lawrence
River and the Great Lakes offer the same advantages to
many of the inland provinces. It will be observed also
that the transportation lines parallel the shores of the
St. Lawrence and the shores of the Great Lakes. The
fact that these waters are navigable the greater portion
of the year has occasioned the application of a very low
scale of local rates, that is, considering the volume of
traffic involved.

In Table 45 are given representative distance rates
applicable on traffic moving on the Grand Trunk Railway
System from Toronto, Ont., to stations between York and
Montreal, both inclusive. The figures in the left-hand
column indicate the distance such points are removed
from the point of origin.

A comparison of these rates with the rates obtaining
under the Central Freight Association scale[2] and the

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[2] See Chapter II.

TABLE 45

CLASS RATES APPLYING BETWEEN TORONTO, ONT., AND STATIONS
SHOWN BELOW

Governed by the Canadian Classification

MILES To	RATES IN CENTS PER 100 POUNDS									
	Classes									
	1	2	3	4	·5	6	7	8	9	10
6 York ....Ont.	11.5	9	8	7	6	6	4.5	4.5	4.5	4.5
10 Scarboro Jct....Ont.	14	12.5	10.5	9	7	7	6	6	6	4.5
17 Port Union ....Ont.	16	14	12.5	10.5	8	7	7	7	7	6
23 Pickering ......Ont.	18.5	16	14	11.5	9·	8	7	8	8	6
29 Whitby Jct. ....Ont.	20.5	18.5	16	12.5	10.5	9	8	9	8	7
34 Oshawa Jct. ...Ont.	23	20.5	17.5	15	11.5	10.5	8	9	9	7
49 Newcastle .....Ont.	27.5	24	20.5	17.5	14	12.5	10.5	11.5	10.5	8
56 Newtonville ....Ont.	30	26.5	23	18.5	15	14	11.5	12.5	11.5	9.5
70 Cobourg ......Ont.	32	29	24	20.5	16	15	12.5	14	12.5	10.5
78 Grafton ....Ont.	37	32	27.5	23	18.5	16	14	15	14	11.5
93 Brighton ....Ont.	39	34.5	30	24	19.5	17.5	15	16	15	12.5
102 Trenton ....Ont.	41.5	37	31	26.5	20.5	18.5	16	17.5	16	14
136 Napanee ....Ont.	46	40.5	34	29	23	20.5	17.5	18.5	18.5	15
186 Gananoque Jct..Ont.	53	46	40.5	33.5	26.5	24	19.5	20.5	20.5	17.5
197 Mallorytown ...Ont.	53	46	40.5	33.5	26.5	24	20.5	22	22	18.5
221 Prescott ....Ont.	57.5	50.5	43.5	35.5	29	26.5	22	23	24	19.5
260 Moulinette .....Ont.	62	54	47	39	31	29	23	24	26.5	20.5
297 Coteau Jct. ....Que.	69	61	52	43.5	34.5	32	24	25.5	27.5	23
335 Montreal ......Que.	76	66.5	57.5	47	38	35.5	26.5	27.5	30	25.5

Trunk Line scale is not practicable because the rates applicable on traffic in the Dominion of Canada are governed by the Canadian Classification, which is adjusted on a ten-class division instead of on the regular six-class division as provided by the Official Classification.

It will be observed that no rates are indicated for Class 9. The rate for this group, according to the classification, applies to special tariffs issued by the individual carriers on live stock, reference being made in their class-rate applications for the commodity publications carrying such rates.

The rates shown as applying between Toronto, Ont., and the points designated are constructed in accordance with the advanced basis which the Canadian Railway Commission recently authorized upon application of the carriers. This scale of rates is applied solely throughout

the territory lying east of Lake Huron and north of Lakes Erie and Ontario, and far enough east to include points in the Province of Quebec, west of Montreal.

To continue the adjustment farther east, and to exemplify certain modifications of the application of the Canadian mileage scale, the line of the Intercolonial Railway has been taken from Montmagny, Que., to Halifax, N. S., and to Sydney, N. S. The Temiscouata Railway (connec-

TABLE 46

Class Rates from Montreal, Que., to Stations in Canada East Thereof

Governed by the Canadian Classification

Miles	To	Rates in Cents per 100 Pounds									
		Classes									
		1	2	3	4	5	6	7	8	9	10
	Intercolonial Ry.										
199	Montmagny .....Que.	38	33	29	24	19	17	15	15	..	13
229	Ste. Louise ......Que.	40	35	30	25	20	18	16	16	..	14
265	St. Alexandre....Que.	42	37	32	26	21	19	17	17	..	15
293	Isle Verte ......Que.	44	39	33	28	22	20	17	18	..	15
323	St. Fabien ......Que.	46	40	35	29	23	21	18	19	..	16
342	Rimouski ....Que.	48	42	36	30	24	22	18	19	..	16
369	Petit Metis .....Que.	50	44	38	31	25	23	19	20	..	17
396	Val Brillant ....Que.	52	46	39	33	26	24	20	20	..	18
435	Millstream ......Que.	54	47	41	34	27	25	20	21	..	19
465	Campbellton ....N. B.	56	49	42	35	28	26	20	21	..	19
651	Moncton ....N. B.	58	51	44	36	29	27	21	22	..	20
775	Truro ....N. S. ⎫										
836	Halifax ......N. S. ⎬	60	53	45	38	30	28	21	22	..	20
830	Pictou ....N. S. ⎭										
897	Mulgrave ....N. S.	64	56	48	40	32	30	22	23	..	21
998	Sydney ....N. S.	68	60	51	43	34	32	23	24	..	22
	Temiscouata Ry.										
284	Ste. Modeste ....Que.	66.5	58.5	50.5	41.5	33.5	31	24	25.5	..	23
294	Whitworth ......Que.	69	61	52	43.5	34.5	32	24	25.5	..	23
304	St. Honore .....Que.	73.5	64.5	55	46	37	34.5	25.5	26.5	..	24
311	Vauban ....Que.	73.5	64.5	55	46	37	34.5	25.5	26.5	..	24
315	St. Louis du Ha! Ha! ....Que.	73.5	64.5	55	46	37	34.5	25.5	26.5	..	24
320	Cabano ....Que.	73.5	64.5	55	46	37	34.5	25.5	26.5	..	24
338	Ste. Rose ....Que.	76	66.5	57.5	47	38	35.5	26.5	27.5	..	25.5
353	St. Jacques Ch..N. B.	78	69	58.5	49.5	39	37	26.5	27.5	..	25.5
359	Edmunston Jct..N. B.	78	69	58.5	49.5	39	37	26.5	27.5	..	25.5
372	Baker Brook ....N. B.	78	69	58.5	49.5	39	37	26.5	27.5	..	25.5
383	Ledges ....N. B.	80.5	70	61	50.5	40.5	38	27.5	29	..	26.5
390	Connors ....N. B.	80.5	70	61	50.5	40.5	38	27.5	29	..	26.5

tion or feeder extending from Riviere du Loup to Connors) is also included, the rates being indicated in Table 46.

A comparison of rates with the length of haul between Montreal and Sydney, a distance of 998 miles, with the rates from Chicago to New York, 912 miles, seemingly indicates an advantage of lower rates applying via the Canadian lines. The comparison is not correct, however, for reason of the differences existing in the classifications governing the respective rate systems.

So far as the Intercolonial Railway is concerned, it will be observed that the rates applied for distances that correspond with those shown in Table 45 are relatively on the same basis, illustrating in some degree that main line rates have to be built on the same measure, or scale, in order to avoid abrupt increases or decreases where the differences or measures overlap.

To the stations on the Temiscouata Railway (although the distances are very much shorter), the rates are considerably higher in all cases. The rates to Ste. Modiste, although but 284 miles from the point of origin via the route traveled, are the same as the main line rates on the Intercolonial Railway to Millstream, Que., a distance of 435 miles. The propriety of making joint-line rates somewhat higher than those that obtain for single-line hauls and of making rates on branch lines or feeders higher than main or parent lines has long been recognized by the Interstate Commerce Commission and the Board of Railway Commissioners for Canada and others connected with the establishment of freight rates.

Take the instance of the Temiscouata Railway, for example, for the statistical year of 1913, it handled 187,553 tons of revenue freight. A great bulk of the traffic handled (no less than 92 per cent) on this road originated thereon, and of this tonnage 93 per cent is concerned with forest products, while of the total tonnage carried by the road 87.4 per cent is represented by the

same item. By taking up the more important items of freight, the following result is obtained on percentages:

Anthracite coal 1.7%
Bituminous coal 1.7%
Manufactures 2.7%
Products of agriculture................................. 4.9%
Miscellaneous 3.7%
, Forest products 87.4%

The average haul per ton is 43.35 miles; the length of the road is 113 miles; freight train mileage on the Temiscouata Railway is to mixed train mileage as one is to seven, while the preponderance of mixed train mileage vitiates somewhat many averages computed as to the tonnage per train. Subject to this caution, it appears that the average tonnage per train moving freight is 97 tons.

For the year 1912 the average haul per ton on the Canadian Pacific Railway was 372 miles, while the average tonnage per freight train was 392 tons. In the case of the Grand Trunk Railway the figures were respectively 304 and 102. It is stated by officials of the Temiscouata Railway that the railway is disadvantageously situated, as 50 per cent of its line is said to have one and one-half per cent grade.[3]

From the foregoing we have a preponderance of very low grade traffic, namely, (1) forest products; (2) short average hauls; (3) a low train-tonnage loading; and, (4) an ascending or grading roadbed. All of these argue for, and compel the application of, higher rates in order to produce revenue and profit.

WESTERN PROVINCIAL RATES

For that portion of the Dominion lying west of the Great Lakes the Board of Railway Commissioners for Canada recently investigated the propriety of the then

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[3] Ninth Report of the Board of Railway Commissioners for Canada, 1914.

existing rates, and the complaint of shippers that these rates were unduly high as contrasted with those applicable throughout the territory lying east, and the complaint that to this extent these rates restricted the development of this vast western territory.

The findings of the commission, in some measure, sustained this contention, and lower rates for the future were prescribed. The territory was first divided into three divisions—the first, the Prairie Division, extending from the Great Lakes to the Rocky Mountains; the second, or the Pacific Section, including the main-land rail lines and British Columbia; and the third, the British Columbia Lake Regions, including the inland navigable waters in that province.

Having this outline of the zones the commission established the standard scale of maximum freight rates for each zone. The commission took the current Manitoba rates as a basis and with modifications adopted them as a standard. The resulting scale of rates provides for a progression of mileage rates up to and including 2100 miles. It applies generally throughout the entire provincial sections and the British Columbia Lake Regions, abolishing the previous and higher scales formerly charged in the provinces of Saskatchewan and Alberta. The Pacific scale, applicable in the Pacific section, was adjusted on a slightly higher basis.

Both of these scales, however, are subject in some degree to the influence of the lines operating within the northern part of the United States, such as the Great Northern and the Northern Pacific railways. As concerns through traffic to eastern Canadian destinations, their rates cannot materially exceed the rates established by the United States lines if they are to hold their share of the traffic. The adjustment of rates in the United States affecting this region is more fully dealt with in the treatise on *Freight Rates: Western Territory.*

It is true, in general, that rates established from Fort William, Ont., are made the same from Minneapolis, St. Paul, and Duluth. To give the reader some idea of the measure of rates so established under the foregoing rule, the rates currently in effect to some of the more important points, Winnipeg and west thereof, are reproduced in the following table:

TABLE 47

CLASS RATES FROM MINNEAPOLIS, ST. PAUL, AND DULUTH, MINN., TO CANADIAN PROVINCIAL POINTS INDICATED

Governed by the Canadian Classification

To	RATES IN CENTS PER 100 POUNDS									
	Classes									
	1	2	3	4	5	6	7	8	9	10
Portage La Prairie ..... Man.	110.5	92	73.5	55	49.5	41.5	30	31	..	24
Winnipeg .. .... Man.	98	81.5	64.5	48.5	43.5	37	27.5	27.5	..	22
Brandon ..... Man.	126.5	106	84	63.5	57.5	48.5	34.5	34.5	..	29
Regina .... Sask.	170	147.5	117.5	88	79	68.5	49	46.5	..	41
Moosejaw ..... Sask.	184	154	122.5	92.5	83.5	73	51	49	..	43.5
Saskatoon .... Sask.	196.5	164.5	131.5	98.5	89	77.5	54.5	51	..	45.5
Medicine Hat.. Alta.	224	186.5	149	112	100.5	89	64	57	..	52.5
Lethbridge ... Alta.	239	199	158	119	107.5	95	68.5	59	..	56
Henry House .. Alta.	280.5	236	186.5	141	126	116.5	83.5	70.5	..	69.5
Prince George.. B. C	317.5	261	205	158	143	129.5	96	81	..	80

Most of these points appear in Map 1 of the *Atlas of Railway Traffic Maps*. Their location can readily be determined, and an estimate formed of the relative location of the points, and the measure of rates established for such distances as can be taken as representative of those employed in this territory.

INTER-REGIONAL RATES

Taking the rates enumerated in the foregoing section as the basis, the rates are then constructed between destinations and points of origin in eastern Canada, on the one hand, and in western Canada, on the other. These rates are adjusted on an arbitrary basis, using Montreal

rates as the base rates in so far as the territory lying east of Montreal is concerned. The rates from Montreal to representative destinations in western Canada are expressed in Table 48.

TABLE 48

CLASS RATES FROM MONTREAL, QUE., TO CANADIAN PROVINCIAL POINTS

To	RATES IN CENTS PER 100 POUNDS									
	Classes									
	1	2	3	4	5	6	7	8	9	10
Winnipeg	166	138	111	86	71	63	50	50	..	45
Portage La Prairie....	177	147	119	92	76	67	52	53	..	47
Regina	227	189	153	117	98	87	65	63	..	59
Calgary	294	245	197	150	128	116	86	77	..	75
Saskatoon	245	204	165	126	107	95	70	67	..	63
Moosejaw	234	195	157	121	102	91	67	65	..	61
Yellow Head	322	268	216	165	143	130	97	85	..	85
Prince George	350	288	229	178	154	140	106	93	..	93

Taking the line of the Grand Trunk Railway, east of Montreal to Quebec, and the Intercolonial Railway, east of Montreal to Halifax, the representative grouping of the lines may be thus given:

GROUPING OF STATIONS EAST OF MONTREAL

Stations	Group
Grand Trunk Railway Stations	
St. Lambert to St. Bazile...................................	3
Beloeil to Ste. Rosalie Junct................................	5
Britannia Mills to St. Liboire...............................	6
Upton to Victoriaville......................................	7
Princeville to Quebec.......................................	10
Intercolonial Railway Stations	
St. Charles Junct. to Dalhousie..............................	15
Eel River to Painsec Junct..................................	17
Calhoun's to Halifax..	19

The rates from the above groups are constructed with reference to the rates established from Montreal, on a

differential-higher adjustment. The differentials from
the groups enumerated above are as follows:

TABLE 49

DIFFERENTIALS TO BE ADDED TO MONTREAL RATES TO CONSTRUCT
RATES FROM EASTERN GROUPS OF ORIGIN

FROM	RATES IN CENTS PER 100 POUNDS									
	Classes									
	1	2	3	4	5	6	7	8	9	10
Group 3....................	6	5	5	4	3	3	3	3	..	2
Group 5....................	8	7	6	5	4	4	4	4	..	3
Group 6....................	10	8	7	6	5	5	4	4	..	4
Group 7....................	12	11	9	8	6	6	5	5	..	4
Group 10....................	14	12	11	9	7	7	6	6	..	5
Group 15....................	18	16	14	11	9	9	9	9	..	9
Group 17....................	20	18	15	13	10	10	10	10	..	10
Group 19....................	22	20	17	14	11	11	11	11	..	11

The through rates are constructed by adding the fore-
going differentials to the Montreal base rates. This is
to equalize to some degree various production points in
Canada and to enable them to compete with each other
on somewhat equal terms. By a comparison of these
differentials with the local rates applying to Montreal,
it will be seen that they are materially less than the local
rates. Taking Halifax as the point of origin, it will be
noted that the manufacturer or merchant located thereat
is by no means at so great a disadvantage under the
application of the differential adjustment as he would
be were the full combination of locals exacted on this
traffic.

COMMODITY RATES

Because the advantage of location that one point pos-
sesses over another is preserved to each as far as is prac-
ticable on local traffic, it is unnecessary to burden this
treatise with an illustration of typical commodity rates
which are, as a rule, based on existing class rates. On
long hauls and particularly on grain, grain products, live

stock, products of the forest, etc., common to the northwest, rates on export traffic are made considerably less than those applying on domestic business, and the same rate is blanketed over larger areas, placing long stretches of line on the same basis. This practice is, of course, necessary to enable the residents in the western part of the Dominion to find a profitable market for their products. Both from the western part of Canada and from the eastern part the rates of necessity must be made with reference to the rates maintained for similar distances in the United States, where the adjustments are of long standing and have been so made as to permit of the equitable marketing of products to the fullest degree possible. The close relationship between the commerce of the United States and Canada is well illustrated by the way in which rates in the one country are related to the rates in the other. The railway companies of Canada and those of the United States must bear in mind what the competitive roads on the other side of the line are doing, and in order to avoid disastrous competition it is often advisable for them to agree as to adjustments of rates.

CHAPTER XXVII

CANADIAN FREIGHT RATES—Continued

Since the Canadian lines have effected entrances and acquired rights of way through the United States to several points, the more important of which are Chicago, Duluth, Minneapolis, and St. Paul, they are, of course, in competition with the American lines serving such places. To adjust this competition on an equitable basis it is necessary that the Canadian roads employ the same medium of classification and the same bases for rates in adjusting their charges as is employed by the American lines. Consequently, we will find, in taking up the construction of rates to various base points in the eastern part of Canada and the United States, that the application of the percentage principle of making rates has been extended to that territory.

Adjustment of Rates from Central Freight Association Territory

It will be observed from Map 4 of the *Atlas of Railway Traffic Maps*, that from Central Freight Association Territory, traffic may move into Eastern Canada by way of the Detroit or the St. Clair rivers (through Detroit or Port Huron, Mich.) or through the Niagara Frontier by way of Black Rock or Suspension Bridge, N. Y.

292

TABLE 50

Standard Rates from Chicago to Eastern Points

FROM CHICAGO To	RATES IN CENTS PER 100 POUNDS						LIVE STOCK PER 100 POUNDS			DRESSED MEATS PER 100 POUNDS
	Classes						Horses	Cattle	Sheep	
	1	2	3	4	5	6				
Detroit........	50.5	43	34	25.5	17.5	14	47	23	29	43
Port Huron....	56.5	48	38	28.5	20	16	47	25.5	32	43
Buffalo........	62	52.5	41.5	31	21.5	17.5	58	30.5	37.5	50
Philadelphia...	88	77	58	40	34	28	72	36	41.5	53
Montreal......	90	79	60	42	36	30	74	38	43.5	55
New York.....	90	79	60	42	36	30	74	38	43.5	55
Boston........	97	85	65	46	39	32	74	38	43.5	55

For the purposes set forth in this treatise, the rates in Table 50 will be considered as the standard rates from Chicago to the Eastern basing points named. Should the above standard rates be reduced, it will not be permissible to reduce the rates to any of the base points except where such base points are in the *direct line* to Buffalo or Boston, in which case the current Buffalo or Boston rates, as the case may be, will be the maximum (subject to the rates from Detroit or Port Huron, as a minimum from points taking lower than 78 per cent under C. F. A. rules).

Considerable traffic, which has neither origin nor destination in the Dominion, is handled through the two frontiers by the Canadian lines and their connections. The Michigan Central Railroad, for example, is in competition for traffic from Detroit to Buffalo with the American lines operating south of Lake Erie and, as the latter lines employ the C. F. A. scale as their basis for rates, the Michigan Central is compelled to employ the same schedule. It having done so, this forms a maximum, though not a minimum, above which rates to intermediate points between Detroit and Buffalo cannot rise without violating the long-and-short-haul principle.[1] Consequently, through successive expansions of the original adjustment, a modification of the C. F. A. scale has come to be employed on international traffic as far east as Toronto. This fact is disclosed by Map 8, wherein the borders of Central Freight Association are clearly set forth and which includes that portion of Canada immediately north of Lake Erie and between the Detroit and the St. Clair rivers and the Niagara Frontier, extending as far east as Toronto.

[1] As the fourth section of the Act to Regulate Commerce does not apply to intermediate points in Canada, the carriers are in many cases charging higher rates to Canadian points intermediate to Buffalo.

In the application of the scale, however, several base points have been established, intermediate to Buffalo, on the line through Detroit, these points being Windsor, Sarnia, Belle River, Comber, Kingsville, Forest, London, and Hamilton, Ont. The formulas announced in Table 51 are employed in the construction of both class and commodity rates.

TABLE 51

Basis for Making Rates to Canadian Groups from Central Freight Association, Western, and Southern Territories

To Groups	Basis for General Merchandise (For standard rates see Table 50) Rates in Cents per 100 Pounds						Basis for Live Stock and Dressed Meats, Carloads (For standard rates see Table 50)	
	Classes						From points taking	Rates
	1	2	3	4	5	6		
Windsor, Ont.[1]	8.4 7.4 5.3 4.2 3.2 2.6 above Detroit rates, but not to exceed Belle River, Comber, or Kingsville						78% and over	Buffalo current rates
Sarnia, Ont.[2]	8.4 7.4 5.3 4.2 3.2 2.6 above Pt. Huron rates, but not to exceed Forest rates							
Belle River, Ont.[1] Comber, Ont.[1] Kingsville, Ont.[1] Forest, Ont.[2]	$2\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$ 1 lower than Buffalo rates, except when Buffalo rates are less than $7\frac{1}{2}$, $5\frac{1}{2}$, $4\frac{1}{2}$, $4\frac{1}{2}$, $3\frac{1}{2}$, 3 cents per 100 pounds above Detroit rates, in which case Buffalo rates will apply						78% and over	Buffalo current rates
London, Ont. Hamilton, Ont.	From points taking 78% and over of Chicago-to-New York rates, under Central Freight Association rules, current Buffalo rates apply From points taking less than 78% of Chicago-to-New York rates, under Central Freight Association rules, Toronto rates apply, except that from other than Pittsburgh, Ironton, Johnstown, and Connellsville points, the rates Cincinnati to Buffalo are the maximum and to stations						78% and over	Buffalo current rates

TABLE 51—Continued

Basis for Making Rates to Canadian Groups from Central
Freight Association, Western, and Southern Territories

To Groups	Basis for General Merchandise (For standard rates see Table 50) Rates in Cents per 100 Pounds Classes						Basis for Live Stock and Dressed Meats, Carloads (For standard rates see Table 50)	
	1	2	3	4	5	6	From points taking	Rates
London, Ont. Hamilton, Ont.	shown as taking 2½, 1½, 1½, 1½, 1½, 1 cents per 100 pounds lower than Buffalo rates, the same differences may be made below the Toronto rates, when forwarded via Detroit						78% and over	Buffalo current rates
Toronto, Ont.	From Ohio, Western Pennsylvania, Indiana, and certain Illinois and Kentucky stations named in Table 53 rates are on bases shown in Tables 52 and 53 From Chicago and other Illinois points not specified in Table 53 and from points in Michigan, Buffalo standard class rates apply. Such rates are called Toronto rates in tariffs						78% and over	Buffalo standard rates

¹ Via Detroit.
² Via Pt. Huron Tunnel.

It will be recalled that in the chapter dealing with the construction of rates under the Central Freight Association scale, that from all common points in Central Freight Association Territory east of the 100 per cent group, rates to Buffalo are made on the basis of the shortest workable route. Having determined the proper scale to employ to Detroit and Port Huron, Mich., and Buffalo, N. Y., these rates are used as the bases for constructing through rates to the Canadian base points and the related points enumerated above.

As the rates to the Belle River group are the maximum in fixing the rates to Windsor and Sarnia, that adjustment will be taken up first.

According to the Chicago Minimum Rate Sheet, the agreed rates from Chicago to Detroit and Port Huron, Mich., are as follows:

Classes	1	2	3	4	5	6
Rates	50.5	43	34	25.5	17.5	14

and to Buffalo as follows:

Classes	1	2	3	4	5	6
Rates	62	52.5	41.5	31	21.5	17.5

The first step now necessary is to determine the existing difference between the Buffalo rates, on the one hand, and the Detroit and Port Huron rates, on the other, the difference in this instance amounting to the following figures on the various classes:

Classes	1	2	3	4	5	6
Rates	11.5	9.5	7.5	5.5	4	3.5

As these differences are in excess of the 7½-cent scale mentioned in Table 51, the rates to the Belle River group are made by deducting the 2½-cent scale of arbitraries shown in the same item from the Buffalo rate, obtaining the following as a result:

Classes	1	2	3	4	5	6
Rates	59.5	51	40	29.5	20	16.5

Should it have so happened that the fifth-class Detroit rate was 15.7 cents, the resulting difference would have been but 3.2 cents, which is less than the 3½ cents difference prescribed for this class in the item of the table. In such a case the Buffalo rate would have been applied to Belle River without regard to the differential adjustment under Buffalo rates.

Having thus determined the proper rates to apply from Chicago to Belle River, the construction of rates to either Windsor or Sarnia simply involves the addition of the arbitraries indicated in the first two items of Table 51 to the Detroit rates, observing as maximum, the rates to Belle River previously established.

For example, the combination indicating the adjustment is as follows:

Classes	1	2	3	4	5	6
Chicago to Detroit rates	50.5	43	34	25.5	17.5	14
Arbitraries	8.4	7.4	5.3	4.2	3.2	2.6
Result	59	50.5	39.5	29.5	21	16.5

It will be observed that the Belle River arbitrary combination exceeds the Windsor rates on all classes except the sixth class. The final result and scale of rates from Chicago to Windsor is as follows:

Classes	1	2	3	4	5	6
Rates	54	46	36	27	19	15

The above illustration also exemplifies the matter of rates to Sarnia. There are instances, however, particularly in so far as short-haul points are concerned, in which the rates to Port Huron vary as compared with those to Sarnia. This will necessitate individual comparisons in order to determine which are the proper scales to be employed.

To London and Hamilton, Ont., and Points Taking the Same Rates.—From points shown on Map 4 as taking 78 per cent, and over, of the Chicago-New York rates under Central Freight Association rules, such rates as may be currently in effect and established by the lines to Buffalo, are applied also to London and Hamilton.

From points taking less than 78 per cent of the Chicago-New York rate, aside from Pittsburgh, Ironton, Johnstown, and Connellsville, hereinafter described, the rates established to Toronto, Ont., are applied to London and Hamilton but with the proviso that the following rates from Cincinnati to Buffalo be observed as maximum.

Classes	1	2	3	4	5	6
Rates	51	43.5	32.5	22.5	18.5	16

To such stations as Belle River, Comber, Kingsville, etc., which are shown as taking an arbitrary scale of 2½ cents less on first class below the Buffalo rates, the same differences may be observed below the Toronto rates, when shipments are forwarded via Detroit.

To Toronto, Ont., and Points Taking the Same Rates.—In working out an equitable adjustment of rates to apply to Toronto, the Canadian Freight Association, in conjunction with the Central Freight Association, checked in a line of mileage rates and base-point scales to be applied from all points in Central Freight Association Territory. Representative junction points throughout the territory were selected and the base scale or mileage scale of rates that were to be published therefrom was indicated as follows:

TABLE 52

Arbitrary and Distance Rates to Toronto Applicable in Connection With Canadian International Traffic

MILES	RATES IN CENTS PER 100 POUNDS					
	Classes					
	1	2	3	4	5	6
300	48.5	41	30	20.5	17.5	14
325[1]	49.5	41.5	31	21.5	18	14.5
350	50.5	42.5	32.5	22.5	18.5	15.5
375	52	44	33	23	19.5	16.5
400	53	45.5	34	23.5	20.5	17
425	53.5	46.5	35	24.5	21	17.5
450	54.5	47	36	25.5	21.5	18

[1] This scale is not in use.

TABLE 52—Continued

ARBITRARY AND DISTANCE RATES TO TORONTO. APPLICABLE IN CONNECTION WITH CANADIAN INTERNATIONAL TRAFFIC

FROM	RATES IN CENTS PER 100 POUNDS					
	Classes					
	1	2	3	4	5	6
Indianapolis, Ind.	56	49	36.5	26	22.5	18.5
Danville, Ill.	58	50	38.5	27	23	19.5
Terre Haute. Ind.	60	52	40	28	24	20
Louisville, Ky.	61.5	53	41	29	24.5	20.5
Essex, Ill.	61.5	53.5	41	29	24.5	20.5
Evansville, Ind.	65	57	43.5	30	26	22
Ironton, Ohio	59	52	40	28	24	20

These rates in Table 52 are used as assumed mileage rates from the various points from which they are authorized to apply.

In Table 53 is given a list of representative points in Central Freight Association Territory with the mileage rates or the base-point rates that are to be applied therefrom.

For example, if it were desired to construct the rate from Adams, Ind., to Toronto, the 400-mile scale appear-

TABLE 53

BASIS FOR MAKING RATES TO CANADIAN GROUPS FROM CENTRAL FREIGHT ASSOCIATION, WESTERN, AND SOUTHERN TERRITORIES

Figures in Toronto column indicate assumed mileage to be used in establishing rates. Figures in Montreal column indicate the percentage of the Chicago-to-New York class rates.

FROM	TORONTO BASIS (See Table 52)	MONTREAL % BASIS	FROM	TORONTO BASIS (See Table 52)	MONTREAL % BASIS
Adams......Ind.	400	98	Butler.........Pa.	Pittsburgh	([1])
Adams Mills..Ohio	Pittsburgh	95	Cambridge...Ohio	Ironton	95
Akron[3]......Ohio	Pittsburgh	95	Cambridge City		
Alexandria...Ind.	Indianapolis	100	Ind.	Indianapolis	98
Alvordton...Ohio	375	93	Carey........Ohio	375	88
Ashtabula....Ohio	400	86	Cayuga......Ind.	Terre Haute	108
Athens.......Ohio	Ironton	95	Cecil.........Ohio	375	93
Bedford......Ind.	Louisville	108	Celina........Ohio	425	93
Bellefontaine.Ohio	425	92	Chicago Jct....Ohio	400	90
Berea........Ohio	400	86	Chillicothe...Ohio	450	95
Bowling Green			Cincinnati....Ohio	450	95
Ohio	350	86	Cleveland[2]....Ohio	400	86

TABLE 53—Continued

Basis for Making Rates to Canadian Groups from Central Freight Association, Western, and Southern Territories

FROM	TORONTO BASIS (See Table 52)	MONTREAL % BASIS	FROM	TORONTO BASIS (See Table 52)	MONTREAL % BASIS
Coal City ....Ill.	Essex	110	Knox ......Ind.	450	100
Columbus³ ..Ohio	450	92	Kokomo ....Ind.	Indianapolis	100
Columbus Grove Ohio	400	88	Kouts ......Ind.	450	100
Connellsville..Pa.	Connellsville	(⁴)	LaCrosse ..Ind.	450	100
Danville .....Ill.	Danville	108	Ladoga .....Ind.	Terre Haute	108
Dayton .....Ohio	450	92	Lafayette ...Ind.	Indianapolis	108
Decatur .....Ind.	425	98	Laketon ....Ind.	425	100
Defiance ...Ohio	375	93	Lancaster....Ohio	450	95
Deshler ....Ohio	375	86	La Otto......Ind.	400	98
Dunkirk ...Ohio	400	88	La Porte.....Ind.	425	96
East Chicago Ind.	450	100	Latty........Ohio	400	93
Elkhart ....Ind.	400	96	Lebanon......Ind.	Indianapolis	108
Elyria .....Ohio	400	86	Lima........Ohio	400	88
Essex ....Ill.	Essex	110	London ....Ohio	450	92
Evansville ..Ind.	Evansville	110	Louisville ...Ky.	Louisville	108
Findlay ...Ohio	375	87	Madison ....Ind.	Louisville	108
Forest .....Ohio	400	88	Magee .....Ind.	425	96
Fort Wayne.Ind.	400	98	Malcolm ....Ind.	Essex	110
Fowler .....Ind.	Danville	108	Mansfield³ ..Ohio	400	92
Franklin ...Ohio	450	95	Marietta ...Ohio	Ironton	95
Galatea ....Ohio	375	86	Marion³ ...Ohio	400	88
Galion .....Ohio	400	92	Martel³ ....Ohio	400	92
Gallipolis ..Ohio	Ironton	95	Massillon³ ..Ohio	Pittsburgh	95
Greencastle .Ind.	Terre Haute	108	Medina ....Ohio	425	92
Greenville ..Ohio	450	93	Michigan City Ind.	450	100
Greenwich...Ohio	400	90	Middleport .Ohio	Ironton	95
Hagerstown..Ind.	Indianapolis	98	Millersburg .Ind.	425	96
Hamilton...Ohio	450	95	Minerva ...Ohio	Pittsburgh	95
Hammond...Ind.	450	100	Minooka ....Ill.	Essex	110
Hartford ...Ind.	450	98	Mitchell ....Ind.	Louisville	108
Haskells ....Ind.	425	100	Momence ....Ill.	450	108
Hibbard ....Ind.	450	100	Mt. Gilead².Ohio	425	92
Huntington...Ind.	425	100	Mt. Vernon...Ind.	Evansville	110
Huron.......Ohio	375	86	Mt. Vernon³..Ohio	425	95
Indianapolis...Ind.	Indianapolis	100	New Albany...Ind.	Louisville	108
Ironton......Ohio	Ironton	95	Newark³.....Ohio	450	95
Jamestown....Pa.	Pittsburgh	(¹)	Newcastle....Ind.	Indianapolis	98
Jeffersonville..Ind.	Louisville	108	New Castle....Pa.	Pittsburgh	(¹)
Johnstown.....Pa.	Johnstown	(⁵)	New Comerstown Ohio	Pittsburgh	95
Justus³.......Ohio	Pittsburgh	95	New Haven..Ind.	400	98
Kankakee ...Ill.	450	108	New Lexington Ohio	Pittsburgh	95
Kendallville..Ind.	400	98	New London Ohio	400	90
Kent ....Ohio	Pittsburgh	95	New Paris ..Ind.	425	96
Kenton ....Ohio	400	88	New Philadelphia Pa.	Pittsburgh	95
Kingsbury ..Ind.	425	96			
Kingsland ..Ind.	425	98			
Knightstown Ind.	Indianapolis	100			

TABLE 53—Continued

BASIS FOR MAKING RATES TO CANADIAN GROUPS FROM CENTRAL FREIGHT ASSOCIATION, WESTERN, AND SOUTHERN TERRITORIES

FROM	TORONTO BASIS (See Table 52	MONTREAL % BASIS	FROM	TORONTO BASIS (See Table 52	MONTREAL % BASIS
Newton ..... Ill.	Evansville	110	Seymour ... Ind.	Louisville	108
Newton .... Ind.	425	100	Shelby ..... Ohio	400	90
N. Baltimore Ohio	375	86	Shenango ...Pa.	Pittsburgh	(1)
N. Judson...Ind.	450	100	Sidney .....Ohio	425	92
N. Manchester Ind.	425	100	South Bend..Ind.	400	96
N. Marion .. Ind.	450	100	Sullivan .... Ind.	Evansville	110
N. Vernon ..Ind.	Louisville	108	Switz City..Ind.	Louisville	100
Norwalk ...Ohio	375	86	Tiffin ......Ohio	375	88
Oak Harbor.Ohio	350	86	Toledo .....Ohio	300	84
Olney ....Ill.	Evansville	110	Tontogany ..Ohio	350	86
Oxford .....Ind.	Danville	108	Troy ......Ohio	450	92
Painesville .Ohio	400	86	Uhrichsville[3] Ohio	Pittsburgh	95
Peru ....Ind.	450	100	Union City..Ind.	450	94
Phalanx ...Ohio	Pittsburgh	(1)	Urbana ....Ohio	450	92
Piqua........Ohio	450	92	Valparaiso ..Ind.	425	100
Pittsburgh.....Pa.	Pittsburgh	(1)	Veedersburg .Ind.	Danville	108
Plymouth.....Ind.	450	100	Vermillion .Ohio	400	86
Porter........Ind.	450	100	Versailles ..Ohio	450	93
Portland.....Ind.	450	96	Wabash ....Ind.	450	100
Portsmouth...Ohio	Ironton	95	Warren ....Ohio	Pittsburgh	(1)
Richmond....Ind.	450	96	Westfield ...Ind.	Indianapolis	100
Robinson ....Ill.	Evansville	110	Wheeling.W. Va.	Pittsburgh	(1)
Rochester ...Ind.	450	100	Xenia .....Ohio	450	92
Rochester ...Pa.	Pittsburgh	(1)	Youngstown Ohio	Pittsburgh	(1)
Rushville ...Ind.	Indianapolis	100	Zanesville[2] .Ohio	Pittsburgh	95
Sandusky ..Ohio	375	86			

[1] Pittsburgh rates.
[2] The rates from Cleveland to Montreal not to exceed the rates from Pittsburgh.
[3] To base points intermediate to Buffalo or Montreal; Lancaster, Ohio, rates not to be exceeded.
[4] Connellsville rates. (See page 302.)
[5] Johnstown rates. (See page 302.)

ing in Table 52 would be applied, whereas if rates from Alexandria, Ind., were desired, the Indianapolis scale would be applied. In the application of this basis the long-and-short-haul clause has been generally observed, few, if any, deviations therefrom occurring in the application of the basis.

From Pittsburgh, Pa., and related points, specific rates have been checked in by the initial lines to the base points

previously described, which are indicated in the following table, and are applied by way of the Niagara Frontier.

TABLE 54

MINIMUM CLASS RATES FROM PITTSBURGH, PA., AND RELATED POINTS

FROM PITTSBURGH TO	RATES IN CENTS PER 100 POUNDS					
	Classes					
	1	2	3	4	5	6
Windsor, Sarnia, Belle River, Comber, Kingsville, London, Toronto, and Hamilton, Ont.	54.5	47	36	25.5	21	18

This basis places the entire Canadian territory involved on the same footing from the Pittsburgh group.

Using the foregoing rates as a basis, rates from Connellsville and Johnstown, Pa., are made the following arbitraries over the rates from Pittsburgh:

Classes	1	2	3	4	5	6
Connellsville, Pa., rate...........	5	4	3	2	2	2
Johnstown, Pa., rate.............	10	8	6	5	4	3

CHAPTER XXVIII

ADJUSTMENT OF RATES TO BASE POINTS EAST OF TORONTO

Taken as a whole, this adjustment of rates for traffic moving between points in the United States does not materially differ from that employed in constructing rates from and to trunk line points, on the one hand, and to and from Central Freight Association Territory, on the other.

The Montreal rates are the base factor. The rates to other points in Canada, east of Toronto, are made with relation to the Montreal rates, either on a percentage basis or by the addition of fixed differentials.

In Table 55 we have reproduced the bases authorized by the Canadian Freight Association for the construction of rates from western points of origin to the more important base points in the Dominion of Canada, east of Toronto.

In order to clearly illustrate the application of the various formulas for the construction of rates contained therein, each item will be taken up, and an illustration given of its application in the construction of specific rates.

Since the same percentage adjustment employed to New York does not hold good with respect to the construction of rates to Montreal on traffic destined to that point proper, that is when not destined beyond, the first step in the application of this basis for rates is the con-

TABLE 55

BASIS FOR MAKING RATES TO CANADIAN GROUPS FROM CENTRAL FREIGHT ASSOCIATION, WESTERN, AND SOUTHERN TERRITORIES

To Groups	BASIS FOR GENERAL MERCHANDISE (For standard rates see Table 50)						BASIS FOR LIVE STOCK AND DRESSED MEATS, CARLOADS (For standard rates see Table 50)	
	RATES IN CENTS PER 100 POUNDS						From points taking	Rates
	Classes							
	1	2	3	4	5	6		
	From points taking a percentage of Chicago-to-New York class rates, under Central Freight Association rules, the following percentages of the standard rate to Montreal from the same points made on basis of Table 53① apply, subject to the current Montreal rates as a maximum to stations in the direct line							
	Under 78%	78%	79 to 100%	Over 100%	78%		79 to 100%	Over 100%
Agincourt, Ont. Myrtle, Ont.... Oshawa, Ont...	74%	68%	74%	76%	68%		74%	76%
Cobourg, Ont.... Lindsay, Ont... Peterboro, Ont. Cent. Ont. Jct., Ont.	80%	76%	80%	84%	87%		90%	91%
Trenton, Ont... Sharbot Lake, Ont. .... Napanee, Ont.. Kingston, Ont..	90%	87%	90%	91%	96%		96%	96%
Brockville, Ont. Prescott, Ont. Smith's Falls. Ont.	Montreal current rates				78% and over		Montreal current rates	
Carleton Place, Ont. Ottawa, Ont.	Montreal standard rates				78% and over		Montreal standard rates	
Montreal, Que.	From Chicago and other Illinois points not specified in Table 53 and from points in Michigan, standard rates to New York apply, subject to the current rates to Boston as a maximum. From Ohio, Western Pennsylvania, Indiana, and certain Illinois and Kentucky stations, rates are made on percentage bases of Chicago-to-New York class rates as shown in Table 53				78% and over		Boston current rates	

TABLE 55—Continued

BASIS FOR MAKING RATES TO CANADIAN GROUPS FROM CENTRAL
FREIGHT ASSOCIATION, WESTERN, AND SOUTHERN TERRITORIES

To Groups	BASIS FOR GENERAL MERCHANDISE (For standard rates see Table 50) RATES IN CENTS PER 100 POUNDS Classes						BASIS FOR LIVE STOCK AND DRESSED MEATS, CARLOADS (For standard rates see Table 50)	
	1	2	3	4	5	6	From points taking	Rates
St. Johns, Que. Sherbrooke, Que.	7	6	5	4	3	2	78% and over	Boston current rates
	over standard rates to Montreal, except that from points taking 78% and over of Chicago-to-New York rates, the current rates to Boston will be the maximum							
Quebec, Que.② Point Levi, Que.②	14	12	10	8	6	5	78% and over	Boston standard rates
	over the current Montreal rates, as the case may be							
North Sydney, N. S.③	15	12	10½	9	7½	6		
	over New York domestic rates, except that from points taking less than 78% of Chicago-to-New York rates, the 78% rates will be the minimum							
Mont Joli, Que.②	26	23	20	16	13	12		
	over the standard rates to Montreal①							
St. John, N. B.②	30	26	23	19	15	13		
	over the standard rates to Montreal④							
Halifax, N. S.②	32	28	24	20	16	14		
	over the standard rates to Montreal④							
Mulgrave, N. S.②	36	32	27	23	18	16		
	over the standard rates to Montreal[4]							
Sydney, N. S.②	40	35	30	25	20	18		
	over the standard rates to Montreal④							

①These percentage groupings are those under the Chicago-to-New York percentage system. To find the rates from Toledo (a 78% point) to Agincourt, first obtain the rate, Toledo to Montreal, on basis of 84 per cent of the Chicago-to-Montreal rate, as per Table 50, then ascertain 68 per cent thereof. The result is the Toledo-to-Agincourt rate.

②Above bases will apply only where through percentages are in effect. Where there are no through percentages the traffic is subject to the current local rates from Montreal to destination.

③Applicable only on traffic destined to points in Newfoundland.

④Rates on grain and grain products, carloads, to the following base points: Quebec and Point Levi (proper), Mont Joli, St. John, Halifax, Mulgrave, and Sydney are made up by adding the sixth-class arbitraries shown above to the current Montreal (local) rates.

struction of rates from various Central Freight Association points to Montreal.

An inspection of Table 53 will disclose many of the important base points in Central Freight Association Territory. In the column headed "Montreal per cent basis" appear certain figures which represent the percentages of the Chicago-Montreal rates, which such points are to be given in establishing through rates therefrom. Toledo, Ohio, although a 78 per cent point, in the construction of rates from Toledo to New York, is assigned to the 84 per cent group for the construction of rates to Montreal. Cincinnati, while an 87 per cent point in the United States adjustment, takes 95 per cent in the construction of rates to Montreal. Indianapolis, a 93 per . cent point, in the construction of rates to New York, takes 100 per cent in the construction of rates to Montreal. The rates obtained under these formulas are known as "standard" rates.

Exceptions to Application of Canadian Rate Basis

(1) When rates to eastern United States points are reduced below the bases provided in the Official Classification, or below standard rates, the rates to Canada shall not be reduced, provided that from points taking 78 per cent of Chicago-New York rates, or higher, the Buffalo rates may be applied to points shown in Table 51 as taking Buffalo rates, or lower, and the rates to Portland, Me., or Boston, Mass., shall be the maxima to intermediate stations in the direct line of the Grand Trunk and the Canadian Pacific railways in Ontario and Quebec, shown in Table 55.

(2) From points east of Cincinnati, shown as taking Pittsburgh rates, if the traffic is forwarded via Detroit to stations east of Toronto, the through rate must not, in any case, be less than from Cincinnati. Traffic from

points taking Pittsburgh, Connellsville, or Johnstown rates must be forwarded via the Niagara Frontier unless specially authorized via Detroit. Shipments from Cleveland, Ohio, may be forwarded either via the Detroit or the Niagara Frontier, from points east of Cleveland, via the Niagara Frontier, and from other points via Detroit.

(3) To points in the vicinity of Detroit, Port Huron, or the Niagara Frontier, in the event that the sum of local rates, plus transfer charges, if any, would be less than the basis provided herein, the sum of the local rates plus such transfer charges, if any, is to be applied.

(4) From points taking less than 78 per cent of Chicago-New York rates, the 78 per cent rates are to be the minima.

(5) Upon traffic to Canadian territory, from points south of the Ohio River, via the crossings east of Cincinnati, the proportion accruing to the roads north of Detroit shall be their proportion of the Cincinnati tariff rates.

(6) Upon traffic from the south via Cincinnati (Louisville proper excepted), tariff rates are to be applied from Cincinnati; in other words, Canadian railways will not accept a division of proportional rates to Canadian territory. In like manner, on business from points south of the Ohio River, and via Louisville, Evansville, Cairo, and East St. Louis, or the Ohio River Crossings west of Cincinnati, destined to all points in Canadian territory, tariff rates in effect from these points proper shall be applied.

This basis of rates is applicable only between points and via routes where through percentages are in effect. Between points from and to which there are no through percentages, traffic is to be subject to through tariff rates from or to the nearest prorating junction point.

Under the foregoing, if it were desired to construct the rates from Toledo, Ohio, to Montreal, it would be

done by taking 84 per cent of the Chicago-Montreal rates, obtaining the following result:

Classes	1	2	3	4	5	6
Rates	75.5	66.5	50.5	35.5	30	25

These rates are materially higher on each class than are the rates from Toledo to New York, made under the United States adjustment.

It will be noted in the exceptions to the application of these bases, however, that from points taking 78 per cent and higher of the Chicago-to-New York rate, such rates as are established to Portland, Me., or Boston, Mass., are to be applied to intermediate stations on the direct line of the Canadian Pacific or the Grand Trunk railways, and as Montreal is on the direct line, it is necessary to determine what the rate is from Toledo to Boston to see whether or not the Montreal rate as obtained above exceeds the Boston rate.

It will be recalled that the Boston rate from 78 per cent territory is made by adding the following fixed differentials:

Classes	1	2	3	4	5	6
Rates	7	6	5	4	3	2

to the Toledo-New York rates which are as follows:

Classes	1	2	3	4	5	6
Rates	70	61.5	47	33	28	23.5

This results in the following through rates:

Classes	1	2	3	4	5	6
Rates	77	66.5	52	37	31	25.5

which are in all cases higher than the Montreal rates obtained under the adjustment just set forth. Generally speaking, it may be said that the current rates only affect such commodity rates as are established on the bases of rates which are materially less than those obtaining

under the application of the Official Classification. For
example, the Official Classification provides a sixth-class
rating, with a minimum weight of 36,000 pounds, on ship-
ments of pig lead, which is the basis that would apply
to Montreal under the application of the standard rates.
Central Freight Association legislation, however, author-
izes the publication of specific commodity rates, based on
a rate of 19 cents, Chicago to New York. The rates to
Boston from Detroit under this adjustment would be the
New York rate of 15 cents plus the Boston arbitrary of
2 cents, or 17 cents, against the standard class rate to
Montreal of 22.1 cents. Consequently, the Detroit-
Boston rates would be applied on this commodity to
Montreal and the standard basis disregarded, as the ap-
plication of Boston current rates is authorized.

Agincourt, Ont., and Group.—This particular adjust-
ment conforms closely to that employed in the construc-
tion of rates under the domestic basis to Rochester, Syra-
cuse, and Utica, and it involves the application of the
double percentage system in that it is necessary first to
construct the rates from the originating points to
Montreal, as indicated in the preceding section of this
chapter, and then to take the percentage, indicated in
Table 55, of the amount thus obtained.

For example, under this principle the first-class rate
from Cincinnati to Agincourt would be constructed by
taking 95 per cent of the Chicago-Montreal rate of 90
cents, obtaining 85.5 cents as the rate from Cincinnati to
Montreal, and then taking 74 per cent of this amount,
which results in 63.5 cents as the rate from Cincinnati to
Agincourt.

Lindsay, Ont., and Group.—What has been said with
respect to the construction of rates to Agincourt holds
good with relation to this adjustment, with the exception
that there is a variance in the percentages assigned to
the various percentage groups of origin.

For example, taking Louisville, Ky., as a representa-

tive point of origin, Table 53 shows that to Montreal rates are made 108 per cent of the Chicago-Montreal rates. First class rate under this formula is 97.2 cents, as the Louisville-Montreal rate, and 91 per cent of this rate yields 88.5 cents, or the Louisville-Lindsay rate.

Brockville, Ont., and Carlton, Ont., and Points Taking the Same Rates.—What has previously been said with respect to the construction of rates to Montreal is true, in so far as the construction of class rates is concerned, of rates to points in this group. The rates are the same as the Montreal rates in practically all instances, except from some short-haul points adjacent to the Niagara Frontier from which, it occasionally happens, the rates to Boston are less than those that obtain to Montreal.

Quebec, Que., and Points Taking the Same Rates.— The arbitraries indicated in the table are to be added to whatever rates may be established to Montreal, in so far as local traffic to Quebec and Quebec rate points are concerned.

For example, St. Louis, Mo., takes 117 per cent of the Chicago-New York rates in establishing rates to Montreal, this results in a rate of $1.05 as the first-class rate, St. Louis to Montreal. Adding 14 cents, the first-class arbitrary indicated in Table 55, $1.19 is obtained as the rate from St. Louis, Mo., to Quebec, Que.

Mont Joli, Que., and Points Taking the Same Rates.— As Quebec, Que., is the last station on the direct lines of the Canadian Pacific and Grand Trunk railways, the rates established to Boston as current rates to Montreal are no longer observed, and existing rates are fixed only with reference to standard rates to Montreal.

Rates from St. Louis to Mont Joli would be made the same as in the Quebec illustration, substituting for the Quebec arbitraries those indicated in the table for Mont Joli.

St. John, N. B., Halifax, N. S., and Points Taking the

Same Rates.—As these points are a greater distance east than Mont Joli, it is only natural to find that, although the same principle is employed in constructing rates, the arbitraries are slightly increased to compensate the carriers for the difference in the hauls involved. Such difference in hauls, however, by no means approximates the difference existing in the local charges between the same points.

A representative line of rates from Chicago to these groups appears in the following tabulation:

Classes	1	2	3	4	5	6
To St. John, N. B........	120	105	83	61	51	43
To Halifax, N. S.........	122	117	84	62	52	44

Mulgrave, N. S., and Sydney, N. S., and Points Taking the Same Rates.—These two points mark the furthermost eastern termini of any rail carriers serving the North American Continent, and as such it is only natural that the arbitraries employed in adjusting rates thereto should be the highest.

The following tabulation indicates rates published by the carriers from Chicago:

Classes	1	2	3	4	5	6
To Mulgrave, N. S........	126	111	87	65	54	46
To Sydney, N. S.........	130	114	90	67	56	48

From Pittsburgh, Pa., and related points, specific rates have been checked in to the various Canadian base points as indicated in Table 56.

From Johnstown and Connellsville, Pa., rates are made by adding the arbitraries indicated in Table 57 to the Pittsburgh rates shown above.

COMMODITY RATES

Table 58 showing the adjustment applicable on pig iron is reproduced as a matter of information. Under the basis set forth in this table the rate per ton (not the

TABLE 56

Minimum Rates from the Pittsburgh Group to Canadian Points Specified via Niagara Frontier

FROM PITTSBURGH TO	RATES IN CENTS PER 100 POUNDS					
	Classes					
	1	2	3	4	5	6
Agincourt, Myrtle, Oshawa......Ont.	63.5	55	42.5	29.5	25.5	21
Cobourg ....Ont.	69	59	46	32	28	23
Lindsay, Peterboro, Cent. Ont. Jct., Trenton ..,...............Ont. Sharbot Lake, Napanee, Kingston. ....Ont.	77.5	67	51.5	35.5	30	25.5
Brockville, Prescott, Smith's Falls. ....Ont. Carleton Place, Ottawa.......Ont. Montreal ....Que.	78.5	67.5	52	36	30	26
St. Johns, Sherbrooke.........Que.	86.5	74.5	57.5	41	33.5	28.5
Quebec, Point Levi............Que.	94.5	81.5	63.5	45.5	37	31.5
Mont Joli ....Que.	108.5	94	75	54.5	45	38
St. John ....N. B.	113	97.5	78.5	58	47.5	41
Halifax ....N. S.	115.5	100	79.5	59	48.5	42
Mulgrave ....N. S.	120	104.5	83	62.5	51	44.5
Sydney ....N. S.	124.5	108	86.5	65	53	46.5

equivalent rate per 100 pounds) must in all cases be used in computing rates to points taking a percentage of the rates to Montreal.

Disposition of Fractions Over the Even 10 Cents

2½ cents and under—Omit.
Over 2½ to 7½ cents—Add 5 cents.
Over 7½ cents—Add 10 cents.

TABLE 57

Arbitraries Over Pittsburgh Rates Applicable from the Johnstown and Connellsville Groups to Canadian Groups Specified in Table 56

FROM	RATES IN CENTS PER 100 POUNDS						IRON COMMODITIES	
	Classes						L. C. L.	C. L.
	1	2	3	4	5	6		
Connellsville, Pa.	5	4	3	2	2	2	2	1½
Johnstown, Pa.	10	8	6	5	4	3	2	1½

TABLE 58

Basis for Rates on Pig Iron in Carloads from Points Specified to Canadian Base Points

To Groups	From Groups					
	Chicago, Ill. Louisville, Ky.	Detroit, Mich.	Cincinnati, O. Cleveland, Ironton, Jackson, Mahoning, Wellston, Columbus,	Evansville, Ind.	East St. Louis Ill.	Cairo, Ill.
Windsor,① Sarnia①.....Ont. Belle River,① Comber①.Ont. Kingsville,① Forest①....Ont. London,① Hamilton①....Ont.	④	④	④	④	④	④
Toronto②..............Ont.	50 cents rates, sub mum	per gr ject	oss ton over to sixth-clas	curren s rates	t Buffa as a m	lo axi-
To the following points, the percentages of the current Mon	treal r	under tment rent r	ioned ates apply	per-		
Agincourt,② Myrtle②....Ont. Oshawa②..............Ont.	74%	68%	74%	76%	76%	76%
Cobourg②..............Ont.	80%	76%	80%	84%	84%	84%
Lindsay,② Peterboro②...Ont. Central Ontario Junct②..Ont. Trenton,②Sherbot Lake②Ont. Napanee,② Kingston②...Ont.	90%	80%	90%	91%	91%	91%
Brockville,③ Prescott③..Ont. Smith's Falls③.........Ont. CarletonPlace,②Ottawa②Ont.	⑤	⑤	⑤	⑤	⑤	⑤
Montreal③.............Que. St. Johns,③Sherbrooke③.Que.	⑥	⑥	⑥	⑥	⑥	⑥
Quebec,② Point Levi②...Que. St. John,② McAdam Junct.②............N. B. Halifax②..............N. S. Mulgrave②............N. S. Sydney②..............N. S.	$1.00 2.00 2.00 2.40 2.80	Per gross ton over current Montreal rates from all origin points.				

①On traffic from south of the Ohio River, forwarded via Cincinnati, Ironton, or other Ohio River Crossings east of Cincinnati, the Cincinnati proportional rate to Buffalo applies.

②On traffic from south of the Ohio River, forwarded via Cincinnati, Ironton, or other Ohio River Crossings east of Cincinnati, the local rate from Cincinnati must be used as a basis, subject to the current Montreal rate as a maximum to intermediate base points.

③On traffic from south of the Ohio River, forwarded via Cincinnati, Ironton, or other Ohio River Crossings east of Cincinnati, the proportional rate to Boston applies.

④Current Buffalo rates apply.

⑤Current Montreal rates apply.

⑥Current Boston rates apply.

CHAPTER XXIX

CANADIAN FREIGHT RATES—Continued

Trunk Line Rates

The general outline of the territory covered by the variously numbered percentage groups in the establishment of rates from eastern points of origin to points in Canadian territory is indicated on Map 9, *Atlas of Railway Traffic Maps*. To distinguish these groups from similarly numbered groups in the United States, letter suffixes have been employed.

As concerns the haul from the north port points of origin, namely, New York, Philadelphia, and Baltimore, it will be noted that it is rather north and south than east

TABLE 59

CLASS RATES FROM NEW YORK RATE POINTS VIA STANDARD ALL-RAIL LINES AND NIAGARA FRONTIER, OGDENSBURG, OR ROUSE'S POINT, N. Y., TO CANADIAN PERCENTAGE GROUPS

FROM EASTERN GROUP	TO PERCENTAGE GROUPS	RATES IN CENTS PER 100 POUNDS					
		Classes					
		1	2	3	4	5	6
	76-C 76-D	68.5	60	45.5	32	27.5	23
	78-C 78-D	70	61.5	47	33	28	23.5
	80-C	72	63	48	33.5	29	24
New York, N. Y.	82-C	74	65	49	34.5	29.5	24.5
	84-C	75.5	66.5	50.5	35.5	30	25
	87-C	78.5	68.5	52	36.5	31.5	26
	89-C	80	70.5	53.5	37.5	32	26.5
	93-C	83.5	73.5	56	39	33.5	28
	100-C	90	79	60	42	36	30

and west. The distances from Baltimore and Phila-
delphia, in general, are in excess of those from New York.
Consequently, as opposed to the adjustment in the United
States, the rates from these points of origin to the greater
part of Canadian percentage territory are made the same
as the New York rates and they are accorded no
differentials.

To illustrate the rates established from New York and
New York rate points to various percentage groups in
Canada, Table 59 indicates the standard all-rail rates
applicable via the direct lines.

Collingwood, Ont., on the south shore of the Georgian
Bay, appears in the 89-C percentage group, and 89 per
cent of the New York-Chicago rate yields the following
rates:

Classes	1	2	3	4	5	6
Rates	80	70.5	53.5	37.5	32	26.5

From the above it is seen that the construction of rates
from New York is not materially different when obtained
with respect to establishment of rates under the domestic
adjustment.

ADJUSTMENT OF RATES FROM OTHER EASTERN POINTS OF ORIGIN

As in the domestic adjustment, the rates from other
seaboard points and interior base points are made with
respect to the rates from New York set forth in the pre-
ceding table. Table 60 has been prepared to indicate the
adjustment employed at this time in establishing such
rates.

Boston, Mass., and Points Taking the Same Rates.—Of
the all-rail adjustment, rates from Boston are made to
all Canadian percentage territory the same as the rates
currently in effect from New York.

TABLE 60

BASIS OF WESTBOUND RATES FROM THE EASTERN BASING POINTS
SPECIFIED TO CANADIAN PERCENTAGE GROUPS
76-C TO 100-C[1]

ITEM	FROM EASTERN GROUPS	TO PERCENT-AGE GROUPS	ARBITRARIES IN CENTS PER 100 POUNDS						REMARKS
			Classes						
			1	2	3	4	5	6	
1	Boston, Mass.	76—C to 100—C							New York rates
2	Albany, N. Y.	76—C to 100—C							New York rates less 20% of New York-to-Chicago rates
3	Ogdensburg, N. Y. (Points in the United States only)	76–C	4.4	3.6	1.9	1.3	1.3	1.5	Less than from New York to same points
		76–D	6.4	4.6	2.9	2.3	2.3	1.5	
		78–C	6	5	3	2	2	2	
		78–D	8	6	4	3	2	2	
		80–C	7.5	6	4	2.7	2.6	2	
		82–C to and including 100–C	8	6	4	3	3	2	
	Ogdensburg, N. Y. (Adirondack Jct., Athelstan, Beauharnois, Bellevue, Que., Berwick, Ont., Black River, Ont., and other points in Canada)	76–C	6.9	5.9	3.9	3	2.9	2	Less than from New York to same points
		76–D	8.9	6.9	4.9	4	3.9	2	
		78–C	8.5	7.3	5	3.7	3.6	2.5	
		78–D	10.5	8.3	6	4.7	4.6	2.5	
		80–C	10	8.6	6	4.4	4.2	3	
		82–C	10.6	9	6.1	4.2	3.8	2.6	
		84–C	11.2	8.4	6.1	4.9	4.5	3.1	
		87–C	11.6	8.4	5.7	5	4.4	2.9	
		89–C	11.1	8.8	5.7	4.8	4	3.4	
		93–C	11.3	9.5	5.8	4.2	4.3	3.5	
		100–C	11.8	9.3	6.5	4.8	4.5	3.3	
4	Syracuse, N. Y.	76—C to 100—C							70% of New York rates
5	Philadelphia and Scranton, Pa.	76—C							New York rates
		76—D	4.4	4.6	.9	1.3	1.3	1.5	Less than New York
		78—C							New York rates
		78—D	6	6	2	2	2	2	Less than New York
		80—C to 100—C							New York rates

TABLE 60—Continued

BASIS OF WESTBOUND RATES FROM THE EASTERN BASING POINTS
SPECIFIED TO CANADIAN PERCENTAGE GROUPS
76-C TO 100-C

ITEM	FROM EASTERN GROUPS	TO PERCENT-AGE GROUPS	ARBITRARIES IN CENTS PER 100 POUNDS						REMARKS
			Classes						
			1	2	3	4	5	6	
6	Baltimore, Md., Williamsport, Pa.	76—C							New York rates
		76—D	6.4	6.6	1.9	2.3	2.3	2.5	Less than New York
		78—C							New York rates
		78—D	8	8	3	3	3	3	Less than New York
		80—C to 100—C							New York rates

[1] Compiled from Revised Percentage Bases for Through Westbound Freight
Rates (supplements 1-12) and from N. Y. C. & H. R. R. R. freight tariff
I. C. C. No. B-18971 and supplements 23 and 30.

Albany, N. Y., and Points Taking the Same Rates.—
Here we have the same formula that is embodied in the
construction of westbound rates from Albany to western
percentage groups, in that it is first necessary to con-
struct the rates from New York to the desired percentage
group and from this amount to deduct 20 per cent of the
New York-Chicago rates.

*Ogdensburg, N. Y., and Points Taking the Same
Rates.*—Rates from Ogdensburg to all Canadian percent-
age territory are the arbitraries indicated under such
rates as may be established from New York. The
5 per cent increase in rates granted in 1914 by the In-
terstate Commerce Commission has caused a split in
this group, owing to the fact that some stations fall with-
in Canadian boundaries. Therefore, from such stations,
the traffic is wholly local to Canada, and is not affected
by the advance. Consequently, the rates from the

Canadian origin points in the Ogdensburg group to the
destinations in groups 76-C to 100-C, inclusive, are less
than the rates from New York State origin points in the
Ogdensburg group to the same destinations.

Syracuse, and Points Taking the Same Rates.—The
percentage employed in the establishment of rates from
Syracuse to western percentage groups in the Dominion
of Canada is the same as is employed in establishing rates
to similar percentage groups in the United States. It is
appropriate, in this instance, to call attention to the
situation of Ogdensburg and Syracuse with respect to
the Canadian percentage groups, in that from points
bordering the shores of Lakes Erie and Ontario through
water routes are available by way of which charges are
in effect which are materially less than any that could
be profitably maintained by the rail carriers from this
territory.

*Philadelphia, Baltimore, and Points Taking the Same
Rates.*—To the greater part of Canadian percentage ter-
ritory, New York rates, as previously stated, are applied
from Philadelphia and likewise from Scranton, Pa.
We find that in order to preserve the integrity of rates
to points west of Detroit certain differentials are con-
ceded under New York rates to points in percentage
groups 76-D and 78-D, as they are in direct line to Detroit
on movements by way of Niagara Frontier. This, how-
ever, obtains only with respect to points in Canadian
territory which are on a direct line between the Niagara
Frontier and Detroit.

Baltimore, Md., and Williamsport, Pa.—The Philadel-
phia rate adjustment is reflected in that applying from
Baltimore. Precisely the same procedure is involved
with the exception of an increase in the differentials or
arbitraries applying to points in 78-D and 76-D per-
centage groups.

RATES VIA DIFFERENTIAL ROUTES

The adjustment of rates to the Canadian points just given applies in connection with the standard all-rail routes. There are many other routes available and in active competition with rail lines. It is well to consider the adjustment of rates that is employed in connection with such other routes.

There are important routes operated by the navigation companies plying upon the Hudson River with rail-and-water connections by way of Rouses Point, N. Y. They influence the movement of more or less competitive traffic, but as a large portion of their traffic is local, these lines or routes have held their rates up to approximately the same figures as those obtaining via the all-rail routes.

Further routes are that via Long Island Sound and New London, Conn., in connection with the Central Vermont Railway, and that via Boston, Mass., or Portland, Me., in connection with subsidiary lines of the Canadian railways which are in each instance accorded substantial differentials under the all-rail rates, the present-day differentials, except to group 76-C, being the following amounts per hundred pounds:

Classes	1	2	3	4	5	6
Rates	8	6	4	3	3	2

less than the existing all-rail rates. To points in group 76-C the differentials are as follows:

Classes	1	2	3	4	5	6
Rates	6.4	4.6	2.9	2.3	2.3	1.5

Via many of these river and rail and sound or ocean and rail routes the rates from New York to any of the Canadian percentage groups would be made by deducting

these differentials from all-rail rates established to the particular group in question.

For example, rates by way of Portland, Me., to points in the 93-C per cent group would be as follows:

Classes	1	2	3	4	5	6
Rates	75.5	67.5	52	36	30.5	26

To Eastern Basing Points.—The all-rail rates to points lying east of the Canadian percentage groups are established to the more important points such as Montreal, Que., and Carleton Place, Ont., and the rates thus obtained are blanketed over considerable areas of territory. From New York to Montreal and Ottawa, via the New York Central Railroad, the rates are on the basis of 73 per cent of the rates obtaining from New York to Chicago, which results in the following rates:

Classes	1	2	3	4	5	6
Rates	65.5	57.5	44	30.5	26.5	22

While via the New York, New Haven & Hartford Railroad, thence via the Boston and Maine Railroad and the Canadian Pacific Railway, the rates are on a lower basis, namely, as follows:

Classes	1	2	3	4	5	6
Rates	58	52	40	28	24	21

The rates published to apply via boat lines on the Hudson River to Albany or Troy, thence by rail, are as follows:

Classes	1	2	3	4	5	6
Rates	58	52	39.5	27.5	24	21

To Carleton Place the adjustment via certain routes is at present 76 per cent of the rates, New York to Chicago, which are as follows:

Classes	1	2	3	4	5	6
Rates	68.5	60	45.5	32	27.3	22.9

While via the New York, New Haven & Hartford Rail-road, etc., the rates are as follows:

Classes	1	2	3	4	5	6
Rates	72.5	63	48	34	29	24

To Quebec, owing to the length of the haul, the rates are adjusted on a somewhat higher basis than that which obtains to Montreal. The authorized percentage to employ is 78 per cent of such rates as may be established from New York to Chicago, which are as follows:

Classes	1	2	3	4	5	6
Rates	70	61.5	47	33	28	23.5

Via the New York, New Haven & Hartford, etc., the rates are as follows:

Classes	1	2	3	4	5	6
Rates	64	57	42.5	29	25.5	23

These are also the rates published by the Hudson River boat lines.

Rates to stations lying east of Quebec, in the northern part of Maine and in the maritime provinces of the Dominion are adjusted by the addition of arbitraries to the rates to the above points, such arbitraries approximating, in some degree, those employed in the adjustment from percentage territory.

From Philadelphia and Boston to Montreal, Carleton Place and Quebec, the same rates are established as are made from New York, thus placing wide areas of the country on a common footing with respect to transportation charges applicable on traffic to this territory.

SOUTHBOUND RATES

It is true, in general, that the grouping of Canadian territory is the same for the construction of rates from or to points in the United States. Such differences as

exist, however, are determined by reference to and comparison of Maps 3 and 4 of the *Atlas of Railway Traffic Maps*. There is some difference, as will be observed in the fact that in Table 61 no rates are shown for the 76 per cent group.

TABLE 61

CLASS RATES FROM CANADIAN PERCENTAGE GROUPS TO NEW YORK RATE POINTS

To Eastern Group	From Percentage Groups	Rates in Cents per 100 Pounds					
		Classes					
		1	2	3	4	5	6
New York, N. Y.	73	65	57.5	44	30.5	26.5	22
	78 } 78-A }	70	61.5	47	33	28	23.5
	80	72	63	48	33.5	29	24
	82	74	65	49	34.5	29.5	24.5
	84	75.5	66.5	50.5	35.5	30	25
	85	76.5	67	51	36	30.5	25.5
	87	78.5	68.5	52	36.5	31.5	26
	89	80	70.5	53.5	37.5	32.5	26.5
	93	83.5	73.5	56	39	33.5	28
	100	90	79	60	42	36	30

In Table 62 appears the basis that has been authorized to apply from various percentage groups to base points in the United States.

DIFFERENTIAL RATES BETWEEN POINTS IN THE UNITED STATES

(a) Ocean-and-Rail Rates

With respect to that traffic which has neither its origin nor destination in the Dominion and is moved by vessel from some of the termini of the Grand Trunk System lines to destination, and to offset the disadvantages occasioned by the greater haul involved, the slower time, and the element of insurance, certain differentials have been exacted by the Canadian lines as concerns this traffic.

The differentials from New York being at the present time as follows:

Classes	1	2	3	4	5	6
Rates	16.8	14.3	11.5	6.8	6.5	5.3

less than the standard all-rail rates, on shipments to Chicago, Ill., which are in connection with the following routes from New York; the National Despatch, and the Eastern Steamship Corporation—Great Eastern Line. When navigation is closed upon the Great Lakes the figures are somewhat less than those shown above. The current figures are as follows:

Classes	1	2	3	4	5	6
Rates	10	8	6	4	4	3

on the respective classes given above.

From Boston and Boston rate points owing to the fact that no water haul is involved, the differentials are not as great as those employed from New York and New York rate points. The differentials offered at the present time being as follows:

Classes	1	2	3	4	5	6
Rates	5	4	3	3	2	1

less per one hundred pounds than the rates established by the standard all-rail lines to Chicago.

From Baltimore and Philadelphia, owing to the fact of the number of carriers involved in a haul by way of Canadian points and the length of the haul and to the fact that there are no lines affiliated with the Canadian lines, no differential is established via northbound routes from this territory, as it is not competitive with the Canadian lines which confine their operation to New England and New York rate points.

TABLE 62

Bases for Construction of Class Rates from Percentage Groups in Canada to Eastern Base Points

ITEM	TO EASTERN GROUPS	FROM PER-CENTAGE GROUPS	Rates or Arbitraries in Cents per 100 Pounds — Classes									REMARKS
			1	2	3	4	5	6	R25	R26	R28	
1	New York, N. Y.	73	65	57.5	44	30.5	26.5	22				Base rates
		78 } 78-A }	70	61.5	47	33	28	23.5				
		80	72	63	48	33.5	29	24				
		82	74	65	49	34.5	29.5	24.5				
		84	75.5	66.5	50.5	35.5	30	25				
		85	76.5	67	51	36.5	30.5	25.5				
		87	78.5	68.5	52	36.5	31.5	26				
		89	80	70.5	53.5	37.5	32.5	26.5				
		93	83.5	73.5	56	39	33.5	28				
		100	90	79	60	42	36	30				
2	Boston, Mass.	73-100	7	6	5	4	3	2				Over New York rates
3	Philadelphia, Pa. } Baltimore, Md. }	73 78-100	70	61.5	47	33	28	23.5	52.5	37	37	78% of Chgo.-N. Y. rates / Same as to New York
4	Albany, N. Y. Schenectady, N.Y. } Troy, N. Y. }	73 78-100	63	56.5	42	29.5	25	21	48	33.5	34	Arbitrary rates / 96% of New York rates

TABLE 62—Continued

BASES FOR CONSTRUCTION OF CLASS RATES FROM PERCENTAGE GROUPS IN CANADA TO EASTERN BASE POINTS

ITEM	TO EASTERN GROUPS	FROM PER- CENTAGE GROUPS	RATES OR ARBITRARIES IN CENTS PER 100 POUNDS									REMARKS
			Classes									
			1	2	3	4	5	6	R25	R26	R28	
5	Binghamton, N. Y.	73 78-100										90% of New York rates
6	Utica, N. Y.	73-100										87% of New York rates
7	Elmira, N. Y. Corning, N. Y.	73-78 78A 80-100										85% 76% of New York rates 86%
8	Hornell, N. Y. Wayland, N. Y.	73-78 78A 80-100										80% 68% of New York rates 82%
9	Syracuse, N. Y. Geneva, N. Y. Oswego, N. Y.	73 78-78A 80-100	53.5	47	35.5	25	21.5	18	40	28.5	29	Arbitrary rates 76% of New York rates 80%
10	Rochester, N. Y. Mt. Morris, N. Y. Depew, N. Y.	73 78-78A 80-100	46.2	39.9	32	22.6	19.4	15.8	39.9	25.6	25.9	Arbitrary rates 68% of New York rates 74%
11	Ogdensburg, N. Y.	73 78-100	7	6	5	4	3	2				Arbitrary rates over New York rates

(b) Lake-and-Rail Rates

The Grand Trunk Railway System in conjunction with
its subsidiary lake line—the Canada Atlantic Transit
Company—operating from Parry Sound on the Georgian
Bay, through Lakes Huron, Michigan, and Superior to
western ports, maintains a differential scale of rates
which is adjusted on a much lower basis than obtains in
connection with the direct rail lines and connecting steam-
ship companies. Present day differentials from New
York and New York rate points to Chicago, Ill., by
way of this route, are as follows:

Classes	1	2	3	4	5	6
Rates	18	15	12	8	7	5

and from Boston they are the same.

A reference to Table 14 of this unit of study will indi-
cate the current differentials obtaining at this time from
and to various port cities by the respective routes.

The rates to other western points on the great lakes and
points related thereto are adjusted in the same general
way but not necessarily on the same figures.

The subject of lake-and-rail rates for domestic traffic,
applying in connection with the adjustment discussed,
should be considered in connection with this discussion.

In so far as the revision of charges established by the
several carriers comprising the routes are concerned,
interstate rates are subject to review and approval by
both the Interstate Commerce Commission and by the
Board of Railway Commissioners for Canada, either
body having power to condemn as unreasonable such
rates as may be established by the carriers.

Railway legislation in the Dominion has followed
closely the trend of public opinion in the States, and
various acts designed to correct abuses have been
approved. Taken as a whole, however, it must be

admitted that the governmental regulations applicable in the Dominion are by no means as stringent as those that obtain in this country

It should be borne in mind that the greater part of the Dominion is yet unsupplied with transportation facilities and, until such time as it is, it is unlikely that any provisions will be established which will tend to discourage the promotion and construction of such facilities.

CHAPTER XXX

CANADIAN FREIGHT RATES—Continued

Rates on Export Traffic

It was shown in a preceding chapter that the rates
on local traffic to Quebec, Que., and to seaboard cities in
the maritime provinces of the Dominion of Canada are
adjusted on the basis of arbitraries over the rates estab-
lished to Montreal. The addition of these arbitraries in
each instance results in higher rates than those that
obtain to New York under the bases of rates established
by carriers in the United States.

The British Government, by means of ship subsidies,
has done much to encourage the building of vessels
engaged in the transatlantic and transpacific trade, and
both the east-coast and the west-coast ports are well sup-
plied with cargo-carrying and passenger-carrying vessels
of the liner type and of huge tonnage capacity. By rea-
son of the low rates established these vessels have been
successful in attracting to Canadian ports considerable
export and import traffic originating at, or destined to,
points in the United States.

The question of what rates apply to the ports is a very
vexatious one. The present adjustment was brought
about only after a number of disastrous rate wars
between the American carriers, on the one hand, and the
Canadian lines, on the other. An agreement was, how-
ever, reached whereby rates to the Canadian ports were
to be made not to exceed to any great degree the rates
maintained to the American ports similarly situated.

The subject of export and import freight rates, as far as the country as a whole is concerned, is discussed in the treatise devoted to export and import freight rates[①] For the purpose of this adjustment, however, it is sufficient to say that on export traffic by way of New York the same basis of rates applies as is applied on domestic traffic. Some few special bases, less than the domestic rates, are authorized to apply on shipments of grain, grain products, agricultural implements, and articles of iron and steel manufacture, which require a somewhat lower basis of rates in order to facilitate their movements.

To Boston the rates are made the same as to New York. This puts the port of Boston on an equality with New York, although it is more distantly located from western points of production, and under the domestic rate adjustment it takes certain arbitraries over New York.

Philadelphia and Baltimore are accorded the same differentials under New York that they are given on domestic traffic, and on this adjustment the Canadian export rate structure is hinged.

The basis currently in effect to Canadian ports is set forth in the following table.

TABLE 63

BASIS FOR RATES ON EXPORT TRAFFIC

To Groups	From	Basis for General Merchandise	Basis for Live Stock and Dressed Meats, Carloads
Quebec, Que. Point Levi, Que. Portland, Me. St. John, N. B. W. St. John, N. B.	78% and over	New York current rates, except that from points taking less than 78% of Chicago-to-New York rates, the 78% rates will be the minimum	New York current rates

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①Freight Rates: Western Territory, Part 4.

TABLE 63—Continued

Basis for Rates on Export Traffic

To Groups	From	Basis for General Merchandise	Basis for Live Stock and Dressed Meats, Carloads
Montreal, Que.	78% and over	Philadelphia current rates, except that from points taking less than 78% of Chicago-to-New York rates, the 78% rates will be the minimum, subject to Montreal (local) rates as maxima	On live stock, New York current rates On dressed meats, Philadelphia current rates
Halifax, N. S.	78% and over	One cent per 100 pounds over St. John, N. B., export rates	One cent per 100 pounds over St. John, N. B., export rates

In a previous chapter there is shown a rate of 31.5 cents applicable from Chicago to New York on shipments of agricultural implements. This is a specially authorized commodity rate.

In the application of the export rate adjustment to Canadian ports on this commodity, the rate to Montreal would be made the same as to Philadelphia, which, in turn, would be made by deducting the fifth-class differential of 2 cents from the New York rate, resulting in a rate of 29.5 cents, Chicago to Montreal.

To Quebec and Point Levi, the New York current rate would be applied without arbitrary deduction, as would the rates to St. John and West St. John, N. B.

To Halifax, N. S., irrespective of upon what basis or approximate class rate the commodity rate is established, rates on export traffic are made by the addition of 1 cent to the rates established to New York. This arbitrary is to be added in all instances after the rate to New York has first been constructed from the desired point of

origin. In other words, it is not proper to add the arbitrary to the Chicago rate and then scale it on the basis of 78 per cent, in constructing the rate from Toledo. The proper procedure is, first make the Chicago-New York rate, take 78 per cent of it, and, to this amount, add the full arbitrary of 1 cent per hundred pounds.

In regard to the adjustment employed in establishing export and import freight rates the Board of Railway Commissioners for Canada stated in its sixth annual report, that "the railway companies maintained that their import rates are proportionals of through ocean-and-rail rates from Great Britain, and that as such they cannot fairly be compared with their domestic rates which apply on traffic carried under dissimilar circumstances and conditions." The board also stated that these rates are kept down by competition with traffic via competing lines of railways in the United States. It is, however, to be noted that the import rates of the Canadian railway companies via Montreal are somewhat lower than the lowest of the import rates charged to the same points in Canada by the competing railway lines in the United States. This fact is no doubt due to two or three things: (1) The determination to divert, as much as possible, of the import traffic to the St. Lawrence routes; (2) The necessity of offsetting the higher rates of marine insurance; and, (3) A praiseworthy desire to protect the port of Montreal and to increase the traffic of the steamships which sail to and from this Canadian port.

As a general proposition, rates on import traffic through Canadian ports of entry to Western percentage groups are adjusted in conformity with the basis set forth in the following tabulation:

(1) Montreal, Que., the same commodity rates as established from Baltimore, which are usually 3 cents per hundred pounds under the New York rates. The important class rates from Montreal, Que., approximate those from Newport News.

(2) Quebec, Que., the same rates as established from Montreal.
(3) St. John and West St. John, N. B., the same rates as established from Montreal.

The foregoing indicates that while there are some differences in the adjustment employed on export traffic, these ports, as related to import traffic, take the same or a common basis of rates.

The Grand Trunk Railway, through its eastern terminus at Portland, maintains the Baltimore basis of rates in connection with import traffic moving by way of that port.

TEST QUESTIONS

1. What are the Western Termini Points, and how was this term derived?

2. How are the class rates from Central Freight Association points east of the Indiana-Illinois state line to Buffalo, N. Y., and Pittsburgh, Pa., constructed?

3. How does this differ from the basis employed from points in the territory lying beyond and including the 100 per cent group?

4. How does the class-rate adjustment differ from the commodity-rate adjustment to Western Termini Points from the 116 per cent group?

5. What comparison can you make with respect to eastbound traffic v. westbound traffic to and from Western Termini Points?

6. (a) How are the rates on grain and grain products to Western Termini Points constructed? (b) On live stock and dressed meats? (c) On iron and steel articles?

7. Illustrate the class-rate and commodity-rate adjustment to Blairsville, Pa.

8. In the addition of arbitraries if the special or commodity rate is the same as a class rate, what arbitrary will be added?

9. When the special or commodity rate is not the same as the class rate, what arbitrary will be added?

10. Briefly outline the current basis of rates applying to Virginian Railway stations from points east of the Cleveland-Marietta-Belpre Line.

11. Trace roughly the course of the Cleveland-Marietta-Belpre Line.

12.   How are through rates from points in Trunk Line Territory on the Atlantic seaboard to St. Paul, Minn., constructed?

13.   How are rates to Albert, Lea, Minn., constructed with regard to the rates to St. Paul?

14.   In general, how are rates from Trunk Line destinations to points in Trans-Mississippi River Territory constructed?

15.   How are rates from Central Freight Association Territory to Mississippi Valley points constructed?

16.   How are rates from Indianapolis, Ind., to points in southeastern territory constructed?

17.   Sum up briefly the trend of railroad construction in the Dominion of Canada.

18.   Do the Canadian railways exert any influence on our domestic rates?

19.   What are the class rates from Toronto, Ont., to Brighton, Ont.?

20.   What are the class rates from Montreal, Que., to Halifax, N. S.?

21.   Is the same scale of rates applied for corresponding distances on the Temiscouata Railway as are applied to stations on the Intercolonial Railway?

22.   For rate-making purposes, how was that portion of the Dominion of Canada lying west of the Great Lakes treated by the Board of Railway Commissioners for Canada?

23.   What are the class rates from Duluth, Minn., to Medicine Hat, Alta.?

24.   What are the rates from Quebec, Que., to Calgary, Alta.?

25.   Outline the adjustment of rates from points in Central Freight Association Territory taking 78 per cent and higher of the Chicago-New York rates to Belle River, Ont.

26.   What rates are observed as maxima from Central Freight Association points to London and Hamilton, Ont.?

27.   On what basis are the rates from Adams, Ind., to Toronto, Ont., made?

28.   How do the rates from Cincinnati, Ohio, to Montreal, Que., compare with the rates from Cincinnati to New York?

29.   What are the minimum class rates from Pittsburgh, Pa., to Hamilton, Ont.?

30.   What are the arbitraries employed in establishing rates from Johnstown, Pa., to Hamilton, Ont.

31.   How are the class rates from Zanesville, Ohio, to Mont Joli, Que., constructed?

32.   What are the class rates from Chicago to Sydney, N. S.?

33.   Compare these rates with the rates from Johnstown, Pa.; what is the resulting difference?

34.   How are the rates on pig iron from Cincinnati, Ohio, to Toronto, Ont., constructed?

35.   What are the class rates from New York to the Canadian 80-C per cent group?

36.   How are the rates from Ogdensburg, N. Y., to percentage group 78-D adjusted with respect to the New York rates?

37.   Is there any difference between the Baltimore rates and the New York rates to Canadian percentage territory 80-C?

38.   Name some of the important differential routes.

39.   What is the subsidiary lake line of the Grand Trunk Railway System?

40.   What is the basis for the construction of rates on export traffic from Indianapolis, Ind., to Quebec, Que.?

41.   How do the rates to Halifax, N. S., compare therewith?

42.   What is the necessity for a special adjustment of this character so far as the Canadian lines are concerned?

INDEX

337

340