

**RAILROAD RATES IN RELATION TO THE
MARKETING OF KANSAS SALT**

by

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AN APPRECIATION

I wish to take this opportunity of expressing my sincere appreciation to the late Professor A.J. Boynton, who suggested this topic and whose suggestions, encouragements and constructive criticisms have been invaluable and to Dr. Jens P. Jensen under whose direction this study was completed after the death of Professor Boynton.

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CHAPTER I
INTRODUCTION

The purpose of this treatise is to show the importance of and the problems involved in marketing Kansas salt. We must have salt, and naturally desire to get it as cheaply as possible. The general demand for salt has led to the exploitation of several salt fields in the United States. These fields are widely scattered geographically, lessening to a certain degree the necessity for transportation. Yet transportation is the greatest single problem in the production of salt.

In Kansas the salt field is located in the central part with its center at Hutchinson. The principal competitive fields are those of Michigan, New York, Louisiana, and Texas. Kansas, owing to its location in the interior part of the United States, finds the railroads to be its only means of transporting salt. In Michigan, New York, and Louisiana water transportation is a factor in bringing about lower railroad freight rates. Some Michigan salt companies operate their own barges and are thus in position to bargain with the railroads for allowances for carrying their salt a part of the distance. This in the early days led to granting special privileges to certain producers, for there was then no federal or state regulation of rates and service.

The resulting chaotic conditions finally led to a nationwide demand for government regulation. Congress passed the Interstate Commerce Act in 1887, which has since been amended several times. It provided for the Interstate Commerce Commission whose duty it is to administer the act. Because of several investigations and decisions by the Commission the Kansas salt producer is now able more nearly to reach the markets he is en-

titled to because of his geographical location than was formerly the case.

I. Historical Importance of Salt

Salt or sodium chloride is a colorless, crystalline solid, with a specific gravity of 213, crystallizing in cubes often with hollow faces. There is little difference in the solubility of salt in hot or cold water, 100 parts of water at 0° dissolving 36 parts of salt, while 100 parts of water at boiling temperature dissolves 39 parts. This fact makes it possible to separate salt from the impurities with which it occurs, as most other substances are much more soluble in hot than in cold water. (1)

Common salt has been known and used since the time of earliest man. It is an important constituent of food for both man and animals. It is found in all parts of the world. Small amounts are present in most river waters, and some spring waters are heavily impregnated with it. Sea water contains about ten per cent, and that of the Great Salt Lake, nine and seven tenths per cent. It is also found in large deposits as rock salt, where it may exist in a colorless, transparent form or with varying grades of purity down to a marl-like mass which contains but little salt. The deposits that are worked usually consist of salt not in transparent condition, but in a white, gray, or red massive state. When it is transparent it will split out in cubes, but there is no cleavage in its more impure conditions. (2)

Several references occur in the Bible as to the importance of salt. The first is in Leviticus 2:13, "And every oblation of thy meat offer-

(1) Rogers, Allen, Manual of Industrial Chemistry, page 209.

(2) Ibid, page 208.

ing shalt thou season with salt; neither shalt thou suffer the salt of the Covenant of thy God to be lacking from thy meat offering: with all thine offerings thou shalt offer salt." In Numbers 18:19: "All the heave offerings of the holy things, which the children of Israel offer unto the Lord, have I given thee, and thy sons and thy daughters with thee, by a statute forever: it is a covenant of salt forever before the Lord unto thee and to thy seed with thee."

In the ninth book of Homer's Iliad, line 214, we read as follows: "He sprinkled the meat with divine salt." In the 17th book of the Odyssey, line 455, "you would not give even as much as a grain of salt to your suppliant."

The first salt was produced in North America at Cape Charles, Virginia, in 1620 and Portsmouth, New Hampshire, in 1623. Salt springs were discovered in New York as early as 1664. These salt springs were thought by the Indians to contain demons. The Indians were nevertheless willing to lead the white men to them which thereupon served as salt reservoirs. We note the importance of salt through the salt licks which indicates the prime necessity for the product. Pennsylvania and Virginia contained several licks in the early period.

The value of salt to the early pioneer may be found expressed in the following statement: "A bushel of alum salt was worth a good cow and calf, and as each of the poorly fed, undersized pack-animals could carry but two bushels the mountaineers prized it greatly, and instead of salting or pickling their venison, they jerked it by drying it in the sun or smoking it over a fire."⁽¹⁾

(1) Roosevelt, Theodore, The Winning of the West, Vol. I, page 142.

In the settlement of Kentucky the people suffered from lack of salt. As a consequence Daniel Boone led them to the Blue Licks in 1778 that the people need not suffer because of the lack of this all important necessity of life.⁽¹⁾

There is another very important phase of the salt lick. The salt lick served the hunter during the early day, not only as a source of salt, but he also used the licks, either natural or artificial, as a means of hunting game. We realize more fully the importance of the licks from the following quotations:

"A short time before Boone went to Kentucky, Steiner and Harrod, two hunters from Pittsburgh, who had passed through the Illinois, came down to hunt in the bend of the Cumberland, where Nashville now stands; they found vast numbers of buffalo, and killed a great many, especially around the licks, where the huge, clumsy beasts had fairly destroyed most of the forest, treading down the young trees and bushes till the ground was left bare or covered with a rich growth of clover."⁽²⁾

"The McAfees explored part of Kentucky, and visited different licks. One, long named Big Bone Lick, was famous because there were scattered about it in incredible quantity the gigantic remains of the extinct mastodon."⁽³⁾

The importance of salt as a product led to its importation into the United States from the European countries. It was imported to New Netherlands as early as 1649, where it brought \$2.08 per bushel; later it sold as high as \$4.80 per bushel.

(1) American Encyclopedia, Vol. 4, p. 248.

(2) Roosevelt, Theodore, The Winning of the West, Vol. 1, page 172.

(3) Ibid, page 183.

So essential to life is salt that without it there could be no existence. Considering this fact, we may pardon the boastfulness of Kansas over the possession of one of the largest salt producing centers in the world.

II. Location of Salt Fields

There are many deposits of rock salt in Germany and Austria, the most important being at Strassfurt. In Spain there is a bed of importance; and in fact all countries possess some salt deposits. The United States leads all countries in the production of salt, furnishing in 1925, 52,839,271 barrels of 280 pounds each.

The salt centers in the United States are located ⁽¹⁾ as follows:
(2)

KANSAS:

Hutchinson, Lyons, Sterling, Kanopolis, and Anthony.

MICHIGAN:

Ludington, Manistee, Saginaw, St. Clair, and Detroit.

NEW YORK:

Halite, Syracuse, Retsof, Warsaw, and Ithaca.

OHIO:

Pomeroy, Sandusky, Akron, and Wadsworth.

LOUISIANA:

Jefferson Island, Salt Mine, and Avery Island.

TEXAS:

Palestine and Grand Saline.

CALIFORNIA:

Alvarado, Newark, San Francisco, and San Diego.

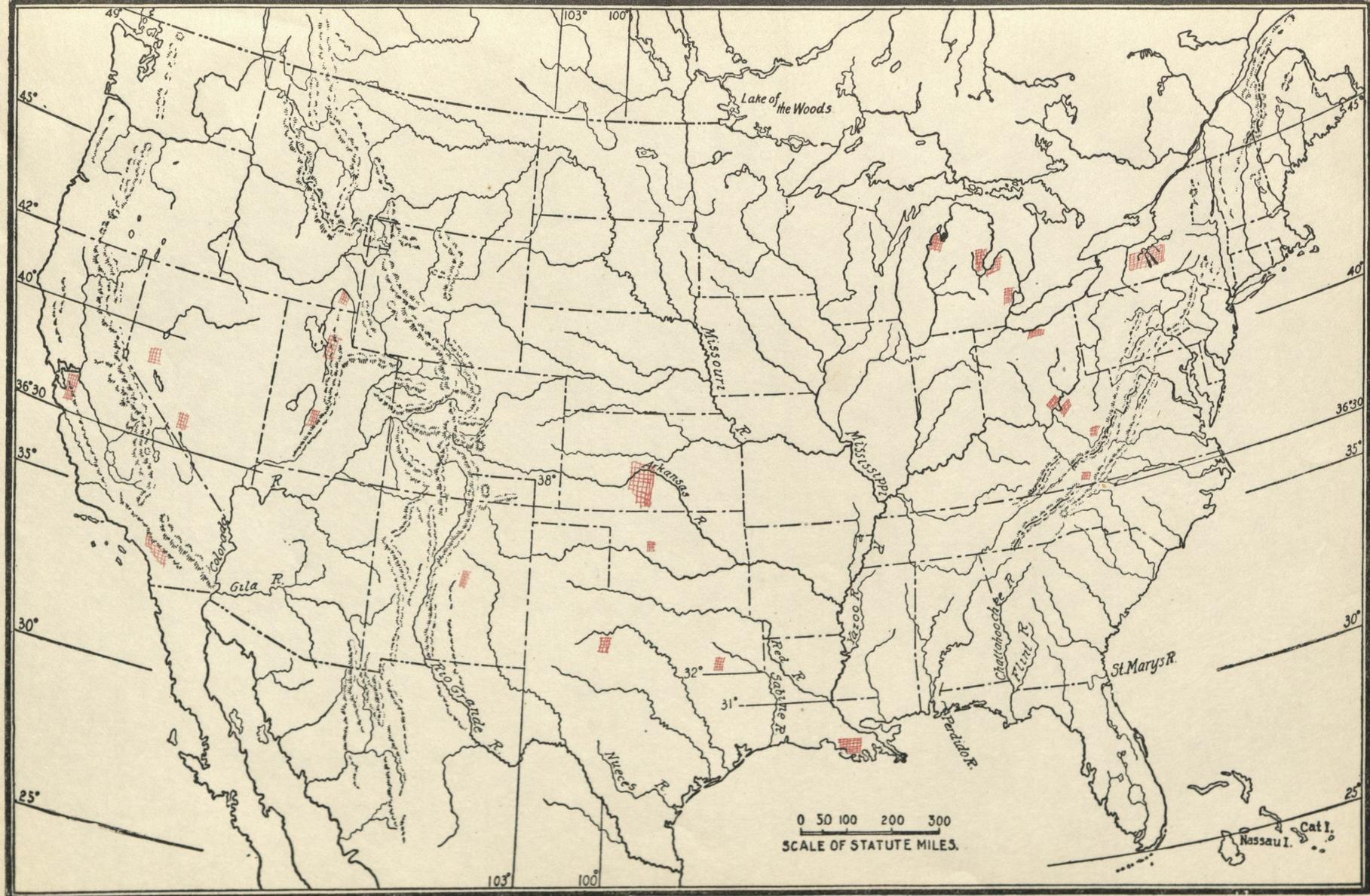
WEST VIRGINIA:

Mason and Charleston.

Salt is also produced in larger or smaller quantities in the following states: Utah, Nevada, Idaho, New Mexico, Oklahoma and Virginia.

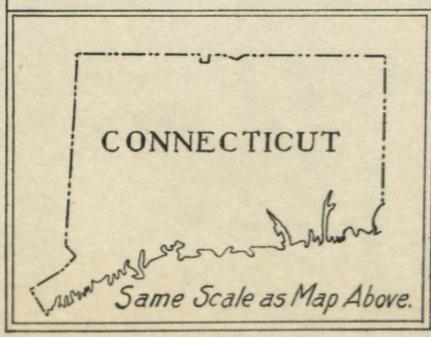
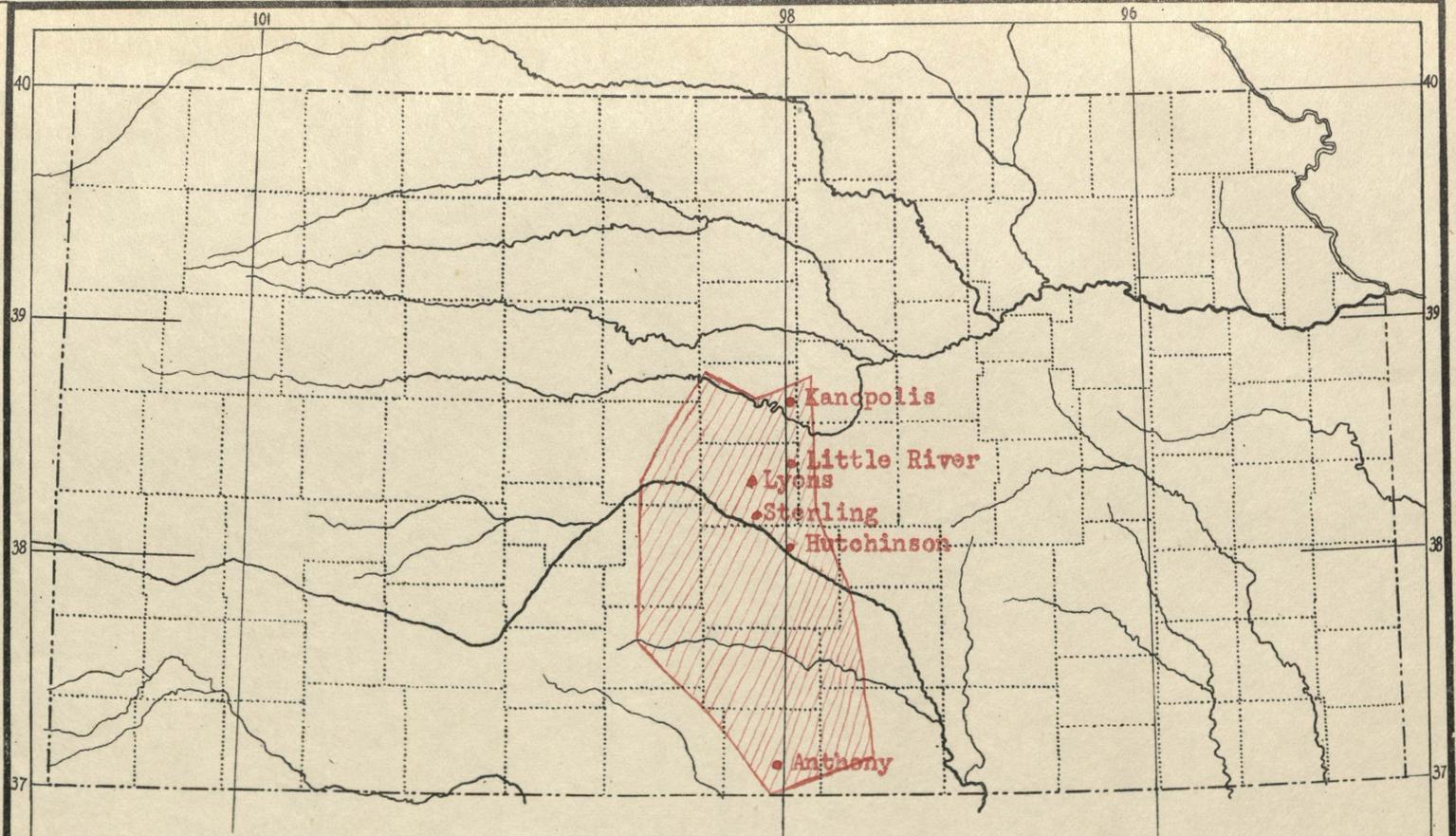
(1) See Map I

(2) See Map II



MAP No. 11. The Historical Publishing Co., Topeka, Kansas.

Map I The Salt Producing Localities in the United States. U.S. Geological Survey Bulletin 669, Plate 1



DATA _____

0 26
SCALE OF STATUTE MILES.

Map No. 87.
SUBJECT

The first evidence of salt in Kansas was discovered in the Tuthill Marsh in the southeastern part of Republic County. Production of salt from the marsh was evident from 1873-1876. Salt was marketed as far away as Manhattan during that period. As for the present salt field, salt was first found on the top of the ground by some cowboys in 1875, ten miles south of Raymond in Rice County. The discovery was reported in Hutchinson, causing a small salt company to be organized for pumping brine from the salt marsh to Raymond on the Santa Fe Railroad. The first venture was not very successful as the brine did not prove strong enough to pay.
(1)

The beginning of the present salt industry in Kansas, dates back to September 27, 1887, when, while drilling for gas in South Hutchinson, Ben Blanchard discovered salt. Salt at that time was brought in from Michigan and sold at from \$3.00 to \$3.50 a barrel.

After the discovery of salt everyone seemingly became interested, for within a year after the discovery there were ten plants in operation. The first plant was built by Dr. Goinlock, an experienced salt manufacturer from Warsaw, New York. Construction began in October, 1887, and was completed by December 16, 1887. He then bored into 300 feet of rock salt. The first salt was produced on March 24, 1888. The plant at the start had 500 barrels capacity per day. It was later increased to 1,000 barrels per day. Nine open steel pans were used for the evaporation of the brine.

The following plants were organized in Kansas between the years 1887 and 1892:

(1) Plough, Sheridan, History of Hutchinson.

Hutchinson Salt and Manufacturing Company

Diamond Salt Company

Bartlett Salt Company

Western Salt Company

Riverside Salt Company

New York Salt Company

Indiana Salt Company

Great Western Salt Company

Carey Salt Company

Many of these salt companies have been taken over and consolidated with the Morton Salt Company of Chicago. With the large number of plants in the field, naturally a process of elimination was necessary to make it a paying business. The problems of experience, cost of production, selling, and over-supply were of paramount importance in the early days. Agreements were made to limit production, but they were not lived up to. Finally many of the companies were forced out of existence. The invention of the steam vacuum process revolutionized the salt business. Another big problem was the competition from other fields because of their more favorable freight rates.

CHAPTER II

Production and Consumption

It is desirable to know how salt is produced and how much is produced in the various fields compared to total production. The present chapter will also treat briefly of the changing volume of export and import and the domestic consumption.

I. Production

Two principal methods are used, the evaporating process and mine process. In the former the solar and brine process are used.

The solar process was first used. Salt water was taken from the salt marshes or from the sea, put into large pans and left there for evaporation. The evaporation was a very slow process, and it did not produce a very pure brand of salt. The product was used largely for livestock and for curing purposes. It is therefore seldom used and will not be described further.

The brine process is used by the Carey Salt Company of Hutchinson, Kansas. Essentially it is as follows: First, a hole is drilled through the surface strata large enough to carry two casings, which are installed one within the other, sufficient space being left between the two for the water to be pumped down the outside pipe by automatic pumps, with such a pressure that it is forced up through the inside one. The water comes in contact with the pure rock salt, dissolves it and carries it in solution to the top. Many of these casing-filled holes are drilled, each discharging its brine into an immense reservoir constructed conveniently near to receive it. At this point begins the process of precipitation from the brine, by means of evaporation. It is accomplished by either of two ways:

the open pan "granier" process, or the enclosed pan "vacuum" process.

In the open pan process the brine, after entering the reservoir, is carried to a long, low building, probably 150 feet in length. On each side of the building are deep pans in which the brine is heated to a boiling point by steam coils just below the surface of the water. The coils are kept at this temperature, as the steam passes the entire length of the building. The vapor from the brine passes off to the atmosphere while the salt sinks to the bottom of the pans. Fastened to the sides of these pans are paddle like scrapers which, by endless chains, are kept moving forward, carrying the precipitated salt along with them. After being carried to the end of the room, a mechanical rake reaches in and drags the salt up an inclined plane and deposits it in a long receiving box, which carries it up thirty-five or forty feet and empties it out on what looks very much like a mountain of salt. This is the common, coarser grained salt used for refrigeration, preservation of meats and fish, and the making of stock blocks.

The finer grained table salt is precipitated from the brine by the vacuum process, the method more widely in use today. The vacuum pans are circular, cast iron vessels sixty to eighty feet high and twenty feet in diameter. They extend from the main floor to the top part of the plant four stories high. Each one consists of two gigantic cones set base to base on a short cylindrical section. In the cylinder are thousands of short copper tubes which are heated by steam. An air pump reduces the pressure in the copper cone and rapid boiling takes place. The vapor from the brine in this process is carried off through a large pipe at the top of the vacuum pan, where it is distilled and used in the making

of ice. The fine crystals are formed and drop to the bottom of the pan, where they are removed by bucket elevators and carried in much the same manner as is the coarser grained salt, first to the drying bins and then to the storage room, where it is held for seasoning, the air drying requiring from four to six weeks. After it is cured it is delivered to the centrifugal dryers, where all excess moisture is removed. It is now ready for table use. Only a small portion is used for that purpose. The remainder is packed into barrels or bags (1) or pressed into stook blocks.

Where rock salt is found in paying quantities sufficient distance below the surface to make it practical to erect a shaft, the mine process is used. The mining of salt is carried on much like the mining of coal. A shaft is made into the salt bed permitting the salt to be extracted and carried to the surface where it is prepared for the market.

An important aspect of production is the amount produced. The production may be indicated not only in terms of the physical quantity, but as well in terms of the value of the product. The following table gives the average marketed production and value of salt in the United States for five year periods, from 1888 to 1925.

(1) Carr, Lola Rariden, Kansas Salt Now Supplies America, Rock Island Magazine. This article was published in pamphlet form.

**Total Marketed Production and Value of Salt in the United States
Five Year Averages**

Years	Quantity in 1,000 bbls.	Value in \$1,000
1888-92	9,325	4,738
1893-97	13,671	4,455
1898-02	20,521	6,662
1902-07	24,968	6,333
1908-12	30,748	8,309
1913-17	40,585	13,130
1918-22	46,767	27,186
1923-25	50,788	26,568

Note: 280 pounds constitute a barrel.
 Years 1909, 1910, 1911, 1912, and 1913 include Hawaii and Porto Rico.
 1914 includes Porto Rico.
 Prior to 1893 wrappers were included in price.
 Prices after 1893 are f.o.b. cars.(1)
 Last average is for 3 year period only.

With the exception of fluctuations in the years 1889, 1901, 1903, 1908, 1910, and 1921, caused by trade conditions, there has been a steady increase in both quantity and value of the salt produced in the United States since data of production have been available. The large increase in value has been due to the gradual adoption of various processes of making high grades of salt for table, dairy, and manufacturing use, the increased use of rock salt, and, since 1914, to the increase in prices necessary to offset the increased cost of fuel and labor. The values given in the above table are influenced by the quantity of salt produced and by the amount used by alkali and chemical manufacturers. Rock salt production has increased because of the demand for its use in producing chemicals and because of the lesser cost of production in comparison with the brine process.

Some of the more important salt producing states are:

(1) Phalen, W.C. Salt Resources of the United States and U.S. Geological Survey, Mineral Resources of the United States. This reference will hereafter be referred to as Mineral Resources.

1. Michigan

Salt was first made in Michigan in 1860. The production in 1860 was 400 barrels of 280 pounds each. The production has been on a gradual increase. For several years Michigan has ranked first among the states in production and value of salt produced. It has been able to retain this position because of its favorable location on the Great Lake, and because of its railroad facilities.

Marketed Production and Value of Salt in Michigan by Five Year Averages 1888-1925 and the Michigan Percentage of Total for U.S. (1)

Years	Production		Value	
	Amount 1,000 bbls.	Percentage of Total	Amount (\$1,000)	Percentage of Total
1888-92	3,871	41.7	2,147	45.0
1893-97	3,379	24.7	1,030	23.3
1898-02	7,090	34.5	1,988	29.8
1903-07	7,985	31.9	1,726	27.1
1908-12	10,174	33.9	2,605	31.3
1913-17	13,356	32.9	4,477	34.3
1918-23	15,129	32.3	9,067	33.3
1923-25	14,805	29.1	8,086	30.4

Note: The last average includes only three year period.

2. New York

The longest record of production of salt in any district in the United States is that of the Onondaga Salt Springs Reservation, New York. Production in this field began as early as 1797. The state controlled these springs and, in lieu of rent and expenses connected there-with on the fixtures, received a percentage per bushel when leased. The output of these springs was made into fine salt until about 1840 when solar salt began to be marketed and now the product is practically all solar salt. Because of its nearness to seaports and the Great Lakes, the

(1) Mineral Resources.

transportation costs have been less in New York than in other states. This state ranks second in marketed production and value of salt, being exceeded only by the state of Michigan.

Marketed Production and Value of Salt in New York by Five Year Averages 1888-1925 and the New York Percentage of Total for United States (1)

Years	Production		Value	
	Amount 1,000 bbls.	Percentage of Total	Amount \$1,000	Percentage of Total
1888-92	2,687	28.8	1,307	27.5
1893-97	6,327	46.2	1,931	43.3
1898-02	7,597	37.2	2,221	33.3
1902-07	8,750	35.0	2,142	33.8
1908-12	10,868	35.3	2,554	30.7
1913-17	12,386	30.5	3,547	27.0
1918-22	13,424	29.0	7,130	26.0
1923-25	14,506	28.5	7,101	26.7

Note: The last average represents 3 year period.

3. Ohio

Ohio, although not having a very large field, ranks third in the production of salt. Ohio's strategic position on the Ohio River and Lake Erie affords it ample water facilities in addition to the railroad lines that pass through the state.

Marketed Production and Value of Salt in Ohio by Five Year Averages 1893-1925 and the Ohio Percentage of Total for United States (2)

Years	Production		Value	
	Amount 1,000 bbls.	Percentage of Total	Amount \$1,000	Percentage of Total
1893-97	1,018	7.1	315	7.0
1898-02	1,566	7.1	631	9.4
1903-07	2,775	11.1	719	11.3
1908-12	4,071	13.2	1,054	12.6
1913-17	6,144	15.0	1,796	13.6
1918-22	7,135	15.0	3,599	13.2
1923-25	8,044	15.8	3,817	14.3

Note: The last is only three year average

(1) Mineral Resources
(2) Ibid

The amount of salt produced in Ohio has steadily increased; the value has likewise increased making the salt industry important in this state.

4. Kansas

Kansas entered the productive and competitive stage in 1888 and since that time has been one of the important salt producing states as the following table will show.

Marketed Production and Value of Salt in Kansas by Five Year Averages 1888-1925 and Kansas Percentage of Total for United States (1)

Years	Production		Value	
	Amount 1,000 bbls.	Percentage of Total	Amount \$1,000	Percentage Of Total
1888-92	746	8.2	373	7.8
1893-97	1,314	9.6	484	10.8
1898-02	1,784	8.2	799	12.0
1903-07	2,116	8.4	747	11.7
1908-12	2,580	8.3	852	12.5
1913-17	3,866	9.5	1,230	9.3
1918-22	5,431	11.6	3,810	14.0
1923-25	5,838	11.1	1,948	11.1

Note: The last entry is for three year period.

The increased production in the Kansas field has resulted from the opening up of a greater consumption area through the adjustment of transportation rates and to the improved methods of production.

Other states in which salt is produced are Louisiana, Virginia, California, Texas, West Virginia, New Mexico, Nevada, Oklahoma, and Idaho--fourteen of the forty-eight states.

II. Imports and Exports

The market, actual or potential, is a determining factor in the production of any commodity as is also the possibility of other countries being able to compete in the available markets. In the early period we

were dependent almost entirely upon foreign countries for our salt, but the steady increase in domestic production has rendered the market for foreign salt in the United States less and less important until she now supplies more than 99 per cent of the salt she consumes. The following table shows:

(1)

United States Imports and Exports of Salt, Selected Years, in Barrels

Year	Imports	Exports
1880	3,427,639	4,436
1885	3,227,380	14,649
1890	1,838,924	17,597
1895	1,996,970	36,855
1900	1,427,921	53,650
1905	1,151,133	244,555
1910	979,305	350,094
1915	873,760	574,816
1920	983,243	994,800
1925	612,771	1,107,707

The above table indicates that the salt export business in the United States is increasing steadily. The greater part of the salt exported from the United States finds its way to Canada, Cuba, Mexico, and Australia.

Percentage of Imports of Salt to Total Consumption in the United States, Selected Years (2)

Year	Percentage
1880	36.5
1885	31.5
1890	17.2
1895	12.78
1900	6.4
1905	4.3
1910	3.2
1915	2.3
1920	2.0
1925	1.

Our imports compared to our exports of salt are very small, indicating that the United States is an exporter rather than an importer of salt.

(1) Mineral Resources

(2) Ibid

III. Consumption

Salt is largely used for culinary purposes and in the meat packing, fish curing, dairying, and other industries to preserve the products from deterioration. The chlorination of gold consumes some salt. It is also used to form a glaze on pottery, in enameling and pipe works, for salting cattle, in curing hides, making pickles and in clearing oleo-margarine. In the form of brine it is used in chemical industries in the preparation of soda ash, caustic soda, and various other chemicals containing a sodium (1) base.

Owing to its varied uses the consumption of salt is appreciable. The direct human consumption in the United States, as well as elsewhere, is not very great. The per capita amount consumed in 1925 was about 104 pounds. But by far the greater part is consumed by the great industries in the United States for the various purposes already indicated.

The important centers of consumption are the large cities and industrial centers. In 1922 the city of Chicago, with its meat packing and other industries consumed some 500,000 tons. Of that quantity about 100,000 tons were used in the meat packing industries, which amount is (2) considered to be the annual requirement of the Chicago packing industry.

There are other large consumption centers such as East St. Louis, Omaha, Sioux City, St. Paul, and Kansas City, in which meat packing industries are located. Kansas as a salt producing state is interested in those consumption centers. Several of those consumption centers are located nearer the Kansas field than any other salt producing field. Naturally Kansas fields seek to supply those centers with Kansas salt. Through favorable transportation rates Kansas is able to reach the above mentioned consuming markets.

(1) Phalen, W.C. Salt Resources of the United States, p. 13.

(2) 66 I.C.C. 83.

CHAPTER III

State and Federal Regulation of Rates

The early conditions were such that no government regulation of railroads was deemed necessary. The state and federal governments followed the laissez-faire policy, believing that hindrances on their part would impair the railroads, the growth of which was so essential at the time. The railroads were therefore permitted to fix their own rates. Experience soon indicated that confidence in the efficiency of competition as a regulator of rates was not warranted. Accordingly, the states early began to show a tendency to regulate railroad traffic and rates.

The main reasons were the growing prevalence of gross discriminations in rates and fares. Unrestricted competition led to such abuses that several states passed laws governing the relations of the railways to each other and with the public. Many states depended wholly upon public opinion to correct the abuses while other states depended upon publicity and penalties. (1) The eastern states established commissions to investigate railway practises, to report the facts, and suggest laws to be passed. The western (Illinois, Wisconsin, Minnesota and Iowa) and southern states established commissions with power to issue orders by legal procedure, thus giving them mandatory authority, while the commissions in the eastern states had only advisory powers.

Between 1870 and 1880 regulation by the western states was challenged by the railroads. The laws regulating the railroads in those states were brought before the state courts. The state courts affirmed the power of

(1) Johnson and Van Metre, Principles of Railway Transportation, page 423.

(1)
 the state. In the famous "Granger decisions" the federal Supreme Court upheld the power of states to regulate railroads. The railway corporations were compelled to recognize the public nature of the service they were performing, and to acknowledge the authority of the states to regulate the railway business, even to fixing the charges for the same. Thus it became evident that a more satisfactory solution of railroad regulation would be federal regulation.

The passage of the Interstate Commerce Act was the direct result of the evil practices of competing railroads such as rebates, discriminations and special rates. The various states had attempted to regulate transportation but because of constitutional limitations they were restricted to the intrastate traffic. The federal government because of its constitutional power to regulate interstate commerce, began investigations toward that end as early as 1878, which finally culminated in the passage of the Interstate Commerce Act, February 4, 1887.

I. Principles and Provisions of the Interstate Commerce Act

In section 2 of this act all unjust personal discriminations in the form of special rates, rebates, or otherwise were prohibited and declared to be unlawful. Section 3 forbade discriminations between localities, commodities, and connecting lines, and required the provision of reasonable and equal facilities for the interchange of traffic.

Section 4 of the statute made it unlawful for any common carrier subject to the provisions of this act to charge or receive any greater compensation in the aggregate for the transportation of passengers or of

(1) Johnson and Van Metre, Principles of Rail Transportation, page 432.

like kinds of property, under substantially similar circumstances and conditions, for a shorter than for a longer distance over the same line, (1) in the same direction, the shorter being included within the longer distance.

These provisions had very little effect upon freight rates, due chiefly to the weaknesses of the law in that it failed to make the orders of the commission binding upon the railroads. When the commission made a recommendation the carriers could obey if they chose, or they could without penalty, ignore the recommendation. The restriction in section four, it was hoped would eliminate discrimination in that a charge for a short haul should not exceed that for the longer one applied to "transportation under substantially similar circumstances and conditions," and "over the same line." It depended entirely upon the meaning of these terms, a situation which made it very difficult for the commission to be consistent on that section of the act.

The Interstate Commerce Act prescribes no different tests or standards for the determination of just and reasonable minimum rates than for just and reasonable maximum rates. There is nothing in the act that would suggest any new methods. However, the following have always been considered when rates were to be adjusted on a specific commodity from different points of origin to a common destination: the relation to distance, revenue per car, car mile, and ton mile, variations in traffic density, and peculiarities in transportation which affect costs in general.

II. Subsequent Legislation

The original law has been amended several times. It is the purpose here to give a few of the changes that have a bearing on this study.

(1) U.S. Statutes at Large, Vol. 24, page 380.

A. The Elkins Act of 1903

The first important federal law for railroad regulation, enacted after the passage of the law of 1887, was the Elkins Act, approved February 19, 1903. This law was passed largely to deal with the questions of personal discrimination and monopolization of trade and production by industrial combinations which were encouraged by railroads. The railroads as well as the general public were eager to put an end to rebates and preferential rates. This act was intended to protect both the public and the railroads. The most important feature of the act was that it made departure from published rates the sole test of discrimination. The law made the corporations as well as their agents liable for violation of the law.⁽¹⁾

B. The Hepburn Act of 1906

By this act some changes were made which increased the power of the commission. A commodity clause was inserted which stated that no road should transport any commodity in which the road was interested as a producer. Rates or fares could not be changed without thirty days' notice to the public and to the commission. The commission was given authority to modify requirements if it could show good cause for doing so.

The most important change was in section 15 providing that if upon investigation the commission found that rates or charges were unjust according to the law, it could determine and prescribe just and reasonable rates, the commission also having power to fix maximum rates. Another very important change was that it placed the burden of proof upon the carriers.⁽²⁾

(1) U.S. Statutes at Large, Vol. 32, page 849.

(2) Ibid., Vol. 34, Part 1, page 586.

C. The Mann-Elkins Act of 1910

A radical addition to the power of the commission was made by vesting that body with authority to suspend changes in railway rates, to give the commission time for investigation, such suspension period to extend for a period of 120 days with an extended period not to exceed two years. This made the power of the commission over increased rates almost absolute.

Two minor changes were made in the fourth section. Carriers were forbidden to charge a greater compensation as a through rate than the aggregate of the intermediate rates over the same line or route; and railroads reducing rates at any time because of water competition were forbidden to raise such rates again, unless, after a hearing before the commission, it could be shown that the proposed increase rested upon changed conditions other than the elimination of water competition. These changes left the matter of the long and short haul in the hands of the commission, and shippers must have approval of commission to make such changes.⁽¹⁾

D. The Transportation Act of 1920

This act made several important changes in the Interstate Commerce Act, changes which were necessary when the railroads were returned to private owners by the Federal Government on March 1, 1920.

The Commission was given the power not only to fix maximum rates, but also to prescribe minimum rates. Rates were to be so fixed that the roads would have a fair return upon capital invested. The second period of suspension by the commission, was limited to 30 days instead of two years. The commission could not permit establishment of any rate that was not reasonably compensatory, whether the route was circuitous or not.⁽²⁾ Five days notice was required for putting new rates into effect.

(1) U.S. Statutes at Large, Vol. 36, Part 1, page 547.

(2) Ibid, Vol. 41, Part 1, page 480.

CHAPTER IV

The Chicago Market

As has been stated in a previous chapter, Chicago is one of the great markets for salt, approximately 500,000 tons being handled there each year. Being located on Lake Michigan, Chicago has access to water transportation and is just across the lake from Michigan, the greatest salt producing state. Chicago is also fortunate in its rail facilities, being connected with all parts of the United States by an extensive network of railroads. To secure desirable rates to Chicago is therefore the problem of producers who desire to enter that market.

Naturally some of the producers would have an advantage over others because of their location. The distance of the important fields to Chicago are as follows: Weeks Island, Louisiana, 1105 miles; Little River, Kansas, 674.5 miles; Sterling, New York, 671.6 miles; and Detroit, Michigan, 272 miles, which gives a great advantage from point of distance to the Michigan field in reaching the Chicago market. The producers of other states therefore endeavored to secure the assistance of the Interstate Commerce Commission in the regulation of rates to make it possible for them to compete in this market.

In the first case before the commission, Anthony Salt Company vs. Missouri Pacific Railway, no reason was found for a change of rates that would be more favorable to the Kansas salt producers. They found, first, that the cost of producing salt in Michigan was less than in Kansas. Second, that Michigan salt entered Chicago more cheaply because of water transportation facilities between the two points. Water competition is an

important factor because the upkeep costs are less since there is no right of way to acquire and maintain as in the case of railways. In water transportation rates are cheaper also because the carriers do not insure the cargo as do the railway companies. Third, since there is normally a great number of empty cars returning westward after shipments to the eastern markets, the railroads are willing to haul salt from the eastern field westward much cheaper than in the opposite direction. (1)

In one of the more recent cases (the Kansas Rock Salt Company vs. Atchison, Topeka and Santa Fe Railway in 1922) before the commission it was pointed out that it was impossible for Little River, Kansas which is located on the Santa Fe railroad to compete in the Chicago market under the existing rates. Other carriers serving the Kansas field had made a rate of 22.95 cents per 100 pounds 60,000 pounds minimum weight to Chicago. (Minimum weight is the least weight the carrier will consider in determining the cost to the shipper for the shipment of a carload of salt.) The Santa Fe system refused to grant a similar rate, making it impossible for the Little River producers to compete with the other Kansas producers.

The rates to Chicago from the Kansas field per 100 pounds were:

Prior to December 15, 1912	16.66 (joint commodity)
December 15, 1912	19
December 15, 1919	24.5 (joint commodity)
February 29, 1920	28
August 26, 1920	35
July 1, 1922	26.65 (minimum 60,000 pounds)

(1) 4 I.C.C. 33-43.

Joint Commodity refers to rates on two or more commodities when shipped in the same car. The rate for shipments of salt in this manner is usually higher than when shipped in carload lots.

The Kansas producers sought a rate of 23.3 cents per 100 pounds to Chicago, minimum 80,000, or 100,000 pounds, which resulted in the following scale being made:

Little River, Kansas to Chicago, 674.5 miles,	25.65	cents
Detroit, Michigan " " 272 "	12.5	"
Weeks Island, Louisiana " 1,105 "	25.65	"
Sterling, New York " " 671.6 "	21	"

These rates became effective July 1, 1922, giving Little River, Kansas, equal rates with Weeks Island, Louisiana in competing for the Chicago market. Detroit being nearer had the preferable lower rate, but with a lower rate from the Kansas field, the Kansas producer could reach the
(1)
Chicago market.

One of the most far reaching decisions of the commission upon salt is embodied in the Salt Cases of 1923, which affect the rates, carload minima, and commodity description. Chicago is the largest consuming market for salt in the United States, and the rates to that point are the most important in the salt rate structure. The eastern and western Michigan producing points, by reason of their great advantage in location, as compared with other producing fields, dominate that market. The rates from the Michigan fields are 11.5 cents, minimum 60,000 pounds, on bulk salt, and 13 cents, minimum 37,500 pounds, on package salt, from Detroit to Chicago. The price of salt f.o.b. Detroit, plus the freight to Chicago, is said to determine the selling price which the other competing fields must meet. Any changes in the rate from Detroit to Chicago would seriously

(1) 69 I.C.C. 745-752.

disturb the interrelated rates from competing fields. A lower rate would entail needless sacrifice of revenue, not only to the carriers which move salt from Detroit to Chicago, but also to those participating in the traffic from other producing fields. The rates to Chicago from the various competing points are already so low that the carriers have asked that they be raised to afford them greater revenue thereby making tonnage attractive. On the other hand, an increase in rate to any appreciable extent, say 15 cents as proposed by the Kansas producers, would seriously handicap the railroads in meeting lake competition.

The present rates of 11.5 and 13 cents as established by the above mentioned decision of 1923 yield 8.5 and 9.6 mills per ton mile, respectively. The minimum earnings per car under a rate of 13 cents based upon 45,000 pounds would be \$58.50. The yield under the same rate, based upon an average loading of 88,000 pounds, would be \$114.40 per car.

The Wabash Railway, the principal salt carrying line between Chicago and Detroit, was very much in favor of the prescription of minimum rates, in order to save itself and other carriers from destructive carrier competition, and was willing to establish an increased rate as a minimum, provided that it be allowed in the future to reduce its rate in event it might become necessary to meet water competition of the lake lines. The commission found the present rates (1923) as not excessive and prescribed a rate of 13 cents, minimum 45,000 pounds as reasonable for the future.

The distance from Ludington and Manistee to Chicago, are, respectively, 299 and 298 miles by rail and 185 and 229 miles by car ferry across the lake to Milwaukee, Wisconsin, and by rail beyond. The distance from eastern and western fields, all rail, should have the same rate, but the car-ferry-

rail-distance warrants a lower rate upon the basis of the all rail rate. The commission decided that the all rail rate should be 13 cents and that the car-ferry-rail rate should be 12 cents.

The New York field also desired to enter the Chicago market or to have rates that would permit it to compete, if it so desired. From 1885 to 1915, with some exceptions, the rate from New York producing points to Chicago was 10 cents, and from Detroit to Chicago up to 1915 the rate was 5 cents. The rate of 10 cents from New York points was established by the New York Central Railway in order that it might share in traffic then moving by canal and lakes to Chicago. From 1915 to 1917 the rates were 5.3 cents from Detroit, except in 1916, when it was 6 cents, and 10.5 cents from New York points. Up to this time the New York rates were about 100 per cent higher than Detroit. The ton mile earnings were 8.5 mills from Detroit and 6.7 mills from Halite, New York. The commission found that the rates should be 21 cents, minimum 45,000 pounds in order to be reasonable.

The Kansas producers were much interested in rates that would enable them to reach the Chicago market. In previous cases, Kansas and Louisiana had been placed upon ^{an} equal basis as to rates in reaching the Chicago market. The Kansas producers contended that the rates from Kansas should be lower than those from Louisiana because of the element of distance and that the Kansas rate should be related to the minimum rate of 13 cents from Detroit to Chicago.

The haul from Kansas to Chicago is through an area of lighter traffic density than from Detroit to Chicago, and includes additional cost in crossing the Missouri and the Mississippi Rivers. A minimum rate of 24 cents

from the Kansas field to Chicago would yield 7.1 mills per ton mile, and would result in fair differentials of 11 cents over Detroit and 3 cents over Halite. The commission found that the rate would be unreasonably low, if lower than 24 cents per 100 pounds.

The Louisiana field also desired to reach the Chicago market. The present rate (1923) on salt from Louisiana to Chicago is approximately 23.08 cents per 100 pounds. The distance is about 1,004 miles. The Louisiana rate was fixed at 27 cents thus practically shutting her out of the Chicago market, except for the selling of capping salt, which is mined exclusively in Louisiana.

The needed adjustment in rates cannot be made effective by the carriers serving the Kansas, Michigan, or New York fields unless the rates from Louisiana are increased. The rates between Michigan mines and the Kansas mines to Chicago have been fixed. The rates from Detroit therefore cannot be increased unless the rates from Kansas are increased. The relationship of New York to Michigan and their rates to Chicago are based upon the findings in similar cases. Water transportation has played its part here, not so much in actual tonnage carried as in their far reaching indirect effect in forcing down railway rates.

The present rates per 100 pounds effective from the various fields to Chicago are as follows:

Detroit, Michigan to Chicago	13 cents
Ludington, Michigan " "	13 cents (rail)
" " " "	12 cents (car-ferry-rail)
Halite, New York " "	21 cents
Kansas field " "	24 cents
Louisiana field " "	27 cents

These rates have been fixed by the commission as just and reasonable to all fields in shipment of salt to the highly competitive market of Chicago, and the commission finds that to change one of these rates would destroy the entire rate structure and result favorably to one field at the expense of the others. (1)

(1) 92 I.C.C., 388-438.

CHAPTER V

The St. Louis Market

The St. Louis market is second in importance only to the Chicago market. Being situated upon the Mississippi and the Missouri Rivers, both of which are rate-breaking points, St. Louis is an important point for re-shipment of salt in addition to being a good market in itself because of its industries using salt. Hence St. Louis is a market which the salt producers of the various fields are desirous of entering and the possibility of entrance depends upon favorable freight rates. This being the case, the producers naturally bring their problems before the Interstate Commerce Commission to secure those rights to which they deem themselves entitled.

The first attempt of the Kansas producers to extend their marketing area for the purpose of reaching St. Louis was made in the case of the Anthony Salt Company vs. Missouri Pacific Railway Company on May 29, 1891. The complaint made by the plaintiff was that defendants gave an undue advantage in rates to the manufacturers of salt in and about Saginaw, Michigan over the rates enjoyed by the manufacturers of salt at Hutchinson, Kansas. The company claimed that New York had an undue advantage over Kansas. Comparison of the rates per 100 pounds from these points to St. Louis show the relative advantages.

Bay City, Michigan	to St. Louis	611 miles	10 cents
New York	" "	806 "	13 "
Anthony, Kansas	" "	575 "	23 1/3 cents

However, the defendants claimed they had no voice in making of rates from Michigan field to Mississippi and Missouri River points, nor to Chicago and St. Louis. These conditions are brought about by water competition and other forces uncontrollable by any carrier line and adjusted and agreed upon long before the Kansas field was discovered and developed. No changes were made at this time since to do so would disturb the whole system of rates from Chicago and East St. Louis west-
 (1)
 ward.

The question was brought up again in 1912 in the case of the Railroad Commissioners of Kansas vs. Atchison, Topeka and Santa Fe Railway. This company's rate from Hutchinson to St. Louis, a distance almost exactly the same as from Detroit to St. Louis on the Wabash, was 4.5 cents more than the average Wabash rate for the same distance. Hutchinson producers maintained that rates in effect from Detroit and from Hutchinson to St. Louis discriminated in favor of the Detroit field. The commission came to the conclusion that the Wabash Railway must cease the discrimination arising out of 9 cent rate from Detroit to St. Louis as compared to the 13.5 cents rate from Hutchinson to St. Louis. This decision gave the Kansas producer a slightly better chance of entering the St. Louis
 (2)
 market.

One of the more recent cases (1922) arose because of the inability of Little River, Kansas to reach the East St. Louis market. Being located upon the Santa Fe system and that system refusing to grant the rate other carriers had granted made it impossible for the Little River producers to compete with other Kansas producers much less those of other states.

(1) 4 I.C.C. 33-43.

(2) 22 I.C.C. 407-419.

The various rates per 100 pounds from Little River to St. Louis were as follows:

Prior to Jan. 1, 1915	13.5 cents
Jan. 1, 1915 to June 25, 1918	18.0 cents
Feb. 29, 1920	19.5 cents
Aug. 26, 1920	26.5 cents (Minimum 37,500)

The Hutchinson, Kansas producers sought a rate of 18 cents to East St. Louis with carload minima of 80,000 or 100,000 pounds. This rate was not granted. However, the scale effective July 1, 1922, gave the Kansas field equal rates with the Louisiana field, though the distance was shorter permitting them to enter the St. Louis market at the following rates per 100 pounds:

Little River, Kansas to East St. Louis	505.7 miles	26.5 cents
Hutchinson, Kansas " " "	524. miles	22.95 cents
Detroit, Michigan " " "	485.2 miles	20.5 cents
Weeks Island, La. " " "	890.5 miles	22.95 cents

In the Salt Cases of 1923 the rates to St. Louis and National Stock Yards were assailed as unreasonable from Halite New York and unduly preferential of Louisiana mines, and to St. Louis as unreasonable from Detroit and unduly preferential of Kansas and Louisiana producing points. The present rates to St. Louis from the four principal groups of origin are equivalent to 31 cents, 779 miles, from Halite; 18.5 cents on bulk and 22 cents on package salt, 488 miles, from Detroit; 20.65 cents, 497 miles, from the Kansas field; and 20.65 cents, 768 miles, from Louisiana mines. Complainants contended that the rates from the Kansas and Louisiana mines were unreasonably low and asked for minimum rates therefrom.

(1) 69 I.C.C. 745-752.

In *Railroad Commissioners of Kansas vs. Atchison Topeka & Santa Fe Railway*, the commission considered the relationship between rates from Detroit and from the Kansas field to St. Louis and found the rate of 13.5 cents from the Kansas field not unreasonable, but that the rate of 9 cents to St. Louis from Detroit (the same as from Chicago) gave undue preference to Detroit and prescribed a rate of 11 cents, minimum 60,000 pounds from Detroit to St. Louis as a fair basis in relation to the rate from the Kansas field.

The present rates per 100 pounds in effect from the various fields to St. Louis are as follows:

Detroit to St. Louis	22 cents
Kansas " " "	23 cents
Halite, N.Y. "	29 cents
Louisiana to "	24 cents

These rates enabled all competing fields to enter the St. Louis
 (1)
 market on a comparable basis.

(1) 92 I.C.C. 388-438.

CHAPTER VI

Northwestern and Southwestern Markets

In what we might term the northwestern markets are the states of the central northwest, within which we find the cities of Omaha, Kansas City, Sioux City, Des Moines, St. Paul, and a number of others, great industrial centers that consume large quantities of salt. A part of this territory is reached by Kansas and Michigan producers on an equal basis while in other parts one may have a slight advantage over the other.

I. Northwestern Markets

The question of rates was brought up for adjustment as early as 1891 in the Anthony Salt Company case. A few comparisons of rates per 100 pounds on salt between given points will indicate the wide variation.

(1)

St. Louis - - - -	-to Fairbury, Nebr.	504 miles,	15 $\frac{2}{3}$ cents
Hutchinson - - - -	-to Fairbury, Nebr.	247 miles,	19 cents
Hutchinson - - - -	-to Ft. Madison,	438 miles,	23 $\frac{1}{3}$ cents
Chicago (1) - - - -	-to Kansas City,	451 miles,	15 cents
Michigan Salt - - - -	to Ft. Worth,	1,387 miles,	43 $\frac{1}{4}$ cents
Kansas Salt - - - -	to Ft. Worth,	427 miles,	35 $\frac{1}{2}$ cents
Ft. Madison (1) - - - -	to Ft. Worth,	826 miles,	35 $\frac{1}{2}$ cents
Hutchinson - - - -	to Clio, Iowa,	372 miles,	23 cents
Chicago - - - - -	to Clio, Iowa,	373 miles,	15 cents

Those rates complained of from Kansas to southeastern Nebraska and other points are said by the defendant to be unreasonable, the service is made in sparsely settled country and necessarily made by circuitous routes and branch lines, making conditions dissimilar to those fixing Michigan rates.

(1) These are the proportional rates from St. Louis to Fairbury, Chicago to Kansas City, and Ft. Madison to Ft. Worth. (Proportional rates are intended to equalize shipping costs so that rival fields may operate on a parity.) St. Louis, Chicago, and Ft. Madison are rate breaking points. To these proportional rates are added the local rates from the Michigan field to these points, which gives the rate to the points of destination.

As a result the following rates were agreed upon by arbitration in November, 1889: On carloads from Chicago to Missouri River points, Kansas City to Sioux City inclusive, per hundred pounds, 15 cents; from St. Louis and other Mississippi River points to Missouri River points, 11 2/3 cents; from Hutchinson to Kansas City, Atchison and St. Joseph, 11 2/3 cents; from Nebraska City, 16 cents; from Omaha, 16 1/2 cents; from Sioux City, 18 cents. From Chicago and Mississippi River points to points in Kansas, and Kansas salt producing points to points in Missouri, through rates are to be made by adding to the above rates to Southwestern Missouri River points respectively the local rates from such points to destination.

This decision made it possible for the Kansas producers to enter the markets of Kansas City and St. Joseph and excluded Michigan salt because of rates, yet the Kansas producers were not able to enter territory they felt they were entitled to because of their central location ⁽¹⁾ and sought further rate adjustment.

On March 7, 1908, a complaint was made by Lincoln Commercial Club against the rates they were compelled to pay compared to those paid to Omaha from the same points of origin in Kansas and territory south and west of the Mississippi River for substantially the same distances. In the investigation it was found that at one time the salt fields of Michigan supplied this territory, but in 1908 Lincoln drew practically all its supply from Kansas producing points. Distance from Detroit to Omaha is 780 miles, from Hutchinson to Omaha 505 miles, making the element of distance in favor of Lincoln, as Lincoln is nearer the Kansas producing points than Omaha. It would be unjust to compel Lincoln to pay more for

(1) 4 I.C.C. 33-43.

a product produced in the West because it was once purchased in the East. Therefore, by order of the commission the carriers were not to charge more from points of origin in Kansas and South and West of the Mississippi River to Lincoln than to Omaha. This gave Kansas producers an advantage in supplying southeastern Nebraska with salt. (1)

Due to the fact that salt is very plentiful and made ready for market at a low cost the value of salt as a commodity is very low; the freight rates determine largely the cost at which it can be laid down at a particular point. Rates from these different sources of supply into midway territory, lying directly west of the Mississippi River, determine therefore to a large extent whether salt supplied to this territory comes from Michigan or Kansas. (2)

The rate settlement made in the case of the Anthony Salt Company vs. Missouri Pacific Railway Company, having been unsatisfactory to the Kansas salt producers, they were again brought to the attention of the commission in 1912 in the case of the Railroad Commissioners of Kansas vs. Atchison, Topeka & Santa Fe Railway. The proceedings involved the relative rates on salt from the Kansas field as compared to the Michigan field into intermediate territory. The salt from these two fields moves in opposite directions. Whether this intermediate territory should be supplied from Kansas or Michigan depends upon the cost of transportation. A reduction in rate on salt from the Kansas field to the points of controversy would not increase the amount of salt consumed but a reduction in the Kansas

(1) 13 I.C.C. 319-328.

(2) 24 I.C.C. 192-196.

salt rate without a change in the Michigan rate would throw the business to the Kansas producers. The question is one of relative adjustment. Schemes of rates were devised whereby a considerable territory west of the Mississippi River was blanketed. Carriers leading from the Kansas field usually named the rate to points west of the Mississippi River which were not as low as the Michigan rate, but lower than the intermediate blanket rates. This constituted a violation of the fourth section of the Interstate Commerce Act against which relief was sought by the Kansas producers who asked for lower rates from the Kansas field. Such privilege was denied but where the direct line observes the fourth section a competing line whose mileage exceeds that of a direct line by not less than 15 per cent was permitted to meet the rate of the direct line without reducing its present intermediate charge.

The rate from the Kansas field to St. Louis was $13\frac{1}{2}$ cents; to Keokuk and Ft. Madison, 15 cents; to Burlington, Davenport, and Dubuque, 13 cents per 100 pounds. The distance to Dubuque is 610 compared to 500 miles to St. Louis. These rates were not considered unreasonable. From Detroit to St. Louis package salt $11\frac{1}{2}$ local (10 cents proportional) and bulk salt 9 cents. Ludington to St. Louis via Chicago, $11\frac{1}{3}$. The Michigan rate to Mississippi River points above St. Louis was $13\frac{1}{2}$, which was held not unjust because points are nearer to Michigan than Kansas. (1)

In Salt Cases of 1923, in rates to Iowa, the Kansas and Michigan producers were on par. This territory is often called neutral territory to these producers. Rates to Des Moines and Ottumwa, 25.65 cents, were the

(1) 22 I.C.C. 407-419.

same from Kansas, Michigan and Ohio although the distance from Kansas is much shorter. To Mason City and Fort Dodge the rates are: Kansas, 32.5 cents; Michigan, 29 cents, though distance from Kansas is 72 and 162 miles, respectively, less than from the Michigan and Ohio groups to Mason City and Fort Dodge.

The following rates were decided upon from the Kansas group: 15.5 cents to Kansas City; 21.5 cents to Des Moines; 22.5 cents to Ottumwa; 24 cents to Fort Dodge; 24.5 cents to Waterloo; 25 cents to Cedar Rapids and Dubuque; 25.5 cents to Mason City; and 27.5 cents to St. Paul. This enlarged the Kansas market territory into Iowa, Minnesota and the Northwest.

Through the decision of the Interstate Commerce Commission in the Salt Cases of 1923, we find the competitive markets of Chicago and St. Louis on a more equitable basis than formerly, permitting Kansas producers to extend their markets into Iowa, Minnesota, Nebraska, and the northwestern states.
(1)

The next case brought before the commission, Salt Between Western and Southwestern Points (decided in 1927), fixed rates for the Northwest whereby Kansas is able to sell more readily there than at any previous time. In the matter of rates to Omaha and Lincoln, because of the movement of salt to those points from Kansas, compared to that from other points, reasonable rates to those points were placed at 17.5 cents to Lincoln, and 20 cents to Omaha, compared to rates of 29.5 cents from Michigan and 32.8 cents from Louisiana, giving the Kansas producers a great advantage in that market. To Sioux City the present rate is 23 cents (the rate to Omaha plus the local rate to Sioux City) based on average distance of 457 miles. The commission further decided that the future rate to Sioux City should be 22.5 cents which would tend to extend Kansas market eastward.
(2)

(1) 92 I.C.C. 388-438.
(2) 120 I.C.C. 91-111.

II. Southwestern Markets

The Kansas producers are vitally interested in several southwestern states as markets. Oklahoma City and Ft. Worth are the main points involved. The chief competitors of the Kansas producers in these fields are those of Texas and Louisiana.

In the case of Morris and Company vs. Union Pacific Railway the Interstate Commerce Commission found that carload rates of 15 cents per 100 pounds on bulk salt from Kansas producing points to Oklahoma City were unjust and unreasonable to the extent that they exceeded 12 cents per 100 pounds. This decision merely upheld a lower rate for Kansas producers to (1) Oklahoma City. In 1925 a rate of 27 cents was established from the Kansas fields to Oklahoma City. Regardless of protests this rate remains to the present time even though it is in violation of the long and short haul clause of the fourth section.

In the year, 1916, the case of Swift and Company vs. the Union Pacific Railway was argued before, and decided by the commission relative to rates from Kansas producing points to Ft. Worth and North Ft. Worth, Texas. Swift and Company operating a large packing plant in North Fort Worth complained against an increase in rate from 26 to 27½ cents per 100 pounds as being unreasonable and discriminatory in favor of Oklahoma City. Kansas mines, being nearer than the Louisiana mines, are the natural source of supply for Fort Worth. The rate, therefore, was changed to 26 cents, making the movement of Kansas salt to Fort Worth possible. A brief comparison of rates per 100 pounds and earnings per ton mile from Kansas producing points to specified points will show the unreasonableness of rates to Texas.

(1) 36 I.C.C. 540-544.

Rates from Kansas Producing Points to Specified Points

Kansas City	239 miles	10 cents	8.3 mills
St. Joseph	260 "	10 "	7.7 "
Omaha	377 "	12 "	6.3 "
Sioux City	478 "	16 "	6.7 "
St. Paul	702 "	20 "	5.7 "
Ft. Worth	431 "	27.5 "	12.9 "

From this table it may be seen that the earnings in mills per ton
(1)
mile are much greater to Texas and warrant a lower rate.

Fort Worth is the largest salt-consuming point in Texas. The 1927 rate from Kansas fields to this point was, bulk 26 cents, package 42 cents. A proposal was made to have a rate of 35 cents on all salt, but rates were fixed at 26 cents as opposed to 24.5 cents from Louisiana. Notwithstanding the fact that the rate on bulk salt from Grand Saline, Texas to Fort Worth (100 miles) is only 12 cents, as compared with the rate of 26 cents from Kansas, (417 miles) and 24.5 from Louisiana, (453 miles) the movement to the packing plants of Armour and Company and Swift and Company at Fort Worth, with the exception of a few cars of capping salt from Louisiana, is almost entirely from Kansas. While there are large movements of evaporated salt from Texas producing points the rock salt used is almost all from Kansas. Swift and Company ships largely from the Independent Salt Company of Kanopolis, in which it has a financial interest.

The present rate to Denver is 26.5 cents. Armour and Company proposed a rate of 25 cents which was comparable with the rate on bulk salt prior to 1925. The commission however decided May 23, 1925 on 26.5 cents which
(2)
covers all grades of salt from Kansas fields to Denver.

(1) 39 I.C.C. 665-669.

(2) 120 I.C.C. 91-111.

CHAPTER VII

Carload Minima and Joint Tariffs

Two important phases of marketing which should be considered because of their influence in determining rates are carload minima and joint tariffs.

I. Carload Minima

It should be kept in mind that carload minimum is a very important phase of marketing salt both intrastate and interstate. Minimum carload is the weight used in figuring the cost of carload shipments. Cost is found by multiplying the carload minimum by the rate on salt to its destination. Naturally the producers desire a rate based on as low minimum as possible so as to enable them to use this rate to markets of relatively small consumption. The carriers on the other hand desire a high minimum weight on which to base their rate as their earnings are thus increased by having their cars loaded more heavily.

One of the big problems lies in the fact that the minimum has varied for the different states of the union, and the fact that the intrastate rate often varies with the interstate. The variation has brought about undue advantage to the salt producers of some states at the expense of producers in others. The railroad commissioners or public utility commissioners of the various state have regulated the carload minima in their respective states and a uniform minimum can only be reached when those commissions are willing to agree to one equivalent to that which the Interstate Commerce Commission might or would establish for interstate movements.

Several complaints have been brought before the commission against the 37,500 pounds minimum and asked that a carload minimum of 45,000 pounds be established uniformly in connection with all interstate and intrastate rates. The producers further believed that the maintenance of carload minima on salt of less than 45,000 pounds within the states of Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Wisconsin, Illinois, Iowa, Missouri, Kansas and Texas, does and will cause undue and unreasonable advantage and preference of intrastate commerce within those states, and does and will cause undue prejudice to interstate commerce on traffic from producing points in Ohio and Michigan to destinations within those states.

The intrastate minimum in the southern states is very low compared to other sections. These states maintain that weather conditions and small quantities of salt used at various southern cities because of this low minimum make it possible for foreign salt to be imported, and also make it possible for New York and Louisiana salt to be shipped by water to ports of southern states and stored there until shipped to the interior. Thus the element of foreign competition makes it impossible for domestic producers to compete for the salt business in many places.

The Interstate Commerce Commission came to the conclusion that the railroad companies as they participate in the transportation are to cease and desist, on or before January 23, 1925, from applying carload minimum more, or less, than 45,000 pounds in connection with their rates on salt from Detroit and Saginaw, Michigan, and from Akron and Cleveland, Ohio, to points in trunk line territory, Carolina territory, southeastern territory

and Mississippi Valley territory; and in connection with the rates for the transportation of salt within the states of Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Louisiana Wisconsin, Illinois, Iowa, Missouri, Kansas and Texas. Rates must be posted accordingly thereafter based on carload minima of 45,000 pounds. ⁽¹⁾

II Joint Tariffs

Another important factor to be considered in the marketing of salt is the question of joint tariffs where more than one carrier is involved. Joint tariffs amount to an agreement between two carriers for a sharing of rate secured for carrying salt between two points. This method was used by many largely to reach the intermediate territory.

Several plants belonging to the Hutchinson, Kansas Salt Company organized and constructed a railroad in Hutchinson, Kansas, known as the Hutchinson and Arkansas River Railway in order to meet the competition in transportation of the competitive fields. This railroad owned nothing but a track yet the three railroads entering Hutchinson made joint tariffs with this company which, on salt shipped to the Missouri River points, gave the latter 25 per cent of the rate not to exceed 50 cents per ton. This railroad is owned and controlled by officers of the salt companies and the earnings of the railroad company are subject to their control. As a result the independent mills in Hutchinson were not able to compete at Missouri River points.

The purpose of making the joint rate was to enable the Hutchinson,

(1) 92 I.C.C. 388-438.

Kansas Salt Company to meet the competition from other quarters. The division of joint rates to the Hutchinson and Arkansas River Railway could not justly have that effect unless it inured to benefit of all the salt producers of Hutchinson. The independent mills of Hutchinson protested to the commission that this joint tariff was unjust to them. After investigation the commission decided that the Hutchinson and Arkansas River Railroad Company was not in good faith as a common carrier, but a mere subterfuge, and it was therefore considered illegal. (1)

A similar case is found in the attempt of Michigan producers to secure more favorable rates to the Missouri River points by organizing a boat line on Lake Michigan, which would make it possible for them to ship salt from Manistee and Ludington to Chicago and in return receive a good compensation for such transportation. The through rate to Missouri River points was 53 cents per barrel of which the boat line received 30 to 33 1/3 percent, amounting from 16 to 18 cents per barrel. The boat line rendered additional service such as storage, unloading and insurance. This company, like the Hutchinson and Arkansas River Railroad was owned by salt producers but the problem of water transportation is a factor or natural advantage to Manistee and Ludington and the commission felt that under those circumstances rates were not so grossly disproportionate to the value of the through service as to be illegal. (2)

In another case, Colonial Salt Company vs. Michigan, Indiana and Illinois Line, a boat line incorporated as a common carrier, was owned and operated in the interest of a salt company. It published no rates except

(1) 10 I.C.C. 1-12.

(2) 10 I.C.C. 148-172.

upon salt in carload lots and it used as terminals facilities the docks and warehouses of the salt company by whose agents and employees all shipments were handled. The commission held that the boat line was a mere device to evade the law and that payments to it (under the guise of divisions) by connecting rail carriers were rebates.

The most recent case is that of The American Salt and Coal Company vs. Chicago Rock Island & Pacific Railroad Company brought before the commission in 1926 and decided April 14, 1927. A railroad company known as the Hutchinson and Northern had been organized and had received its charter from the State of Kansas as a common carrier. The railroad had been built largely through the efforts of the Carey Salt Company in selling it the right of way and furnishing it power from the power plant of the Carey Salt Company. The road owned an engine, and its services consisted largely of switching for which it received from \$4.25 to \$5.25 per car. The competitors of Carey Salt Company protested that these rates were discriminatory in favor of the Carey Salt Company. The commission held that the Hutchinson and Northern Railway was a common carrier and that its rates were not unjustly discriminatory or unduly
(1)
prejudicial.

These smaller industrial railroads are able to obtain rates from the main lines which virtually amount to rebates where the industrial railroad is under the influence of the officers of the salt company.

(1) 126 I.C.C. 7.

CHAPTER VIII

Summary

Salt is produced in fourteen states. Kansas ranks fourth in amount produced. Although her fields were only opened up in 1887 she is now furnishing 5,838,000 barrels each year or 11.1% of the total production of the United States. Since the greatest cost of the salt industry is transportation to the point of consumption, the development of the salt industry of Kansas has progressed in direct proportion to the adjustment of freight rates by the Interstate Commerce Commission.

I. Rate Adjustment and Their Effects

The producers of salt are the ones primarily interested in the relationship of rates because the average freight rate is a substantial percentage of the delivery price of carload quantities, and because the productive capacity in the several fields exceeds existing demands. Adjustment of rates on salt is the outgrowth of (1) keen competition between widely separated producing fields in the sale of this article in the large consuming centers and (2) of competition between many carriers for the revenue derived from the heavy tonnage of this cheap, low-grade commodity. Rates from the point of origin in the separate fields to particular points have been generally grouped around the larger cities. The relationship of rates from the several competing fields to common markets are created often without regard for the relative distances which has given rise to numerous complaints in which Kansas producers have been involved. As a result the Kansas market has been influenced by the follow-

ing cases in the ways indicated.

(1) Anthony Salt Company vs. Missouri Pacific Railway. The salt company was granted rates to St. Louis and southeastern Nebraska which were comparable to the Chicago rates and Kansas was practically given a monopoly of the Kansas City and St. Joseph markets.

(2) Lincoln Commercial Club vs. Chicago Rock Island & Pacific Railway. The Kansas producers were granted rates to Lincoln that were equal to their rates to Omaha which meant that they were able to acquire most of the Lincoln trade much of which had previously gone to Michigan producers.

(3) Railroad Commissioners of Kansas vs. Atchison Topeka & Santa Fe Railway. The Wabash rates from Detroit to St. Louis were adjusted so as to permit salt from Hutchinson to enter St. Louis markets on a comparative basis with Michigan salt.

(4) Morris & Company vs. Union Pacific Railway. Rates from Kansas producing points to Oklahoma City were reduced 20%.

(5) Swift & Company vs. Union Pacific Railway. More favorable rates were granted Kansas producers to Fort Worth markets.

(6) Kansas Rock Salt Company vs. Atchison Topeka & Santa Fe Railway. More favorable rates were secured from Little River Kansas fields to St. Louis and Chicago markets.

(7) Salt Cases of 1923. Kansas producers were given more reasonable rates to Chicago, St. Louis, Des Moines, Ottumwa, Fort Dodge, Waterloo, Cedar Rapids, Dubuque, Mason City and St. Paul. At this time the uniform carload minimum was established.

(8) Salt Between Western and Southwestern Points. Rates were established to Sioux City, Sioux Falls and Denver and the rates to Omaha,

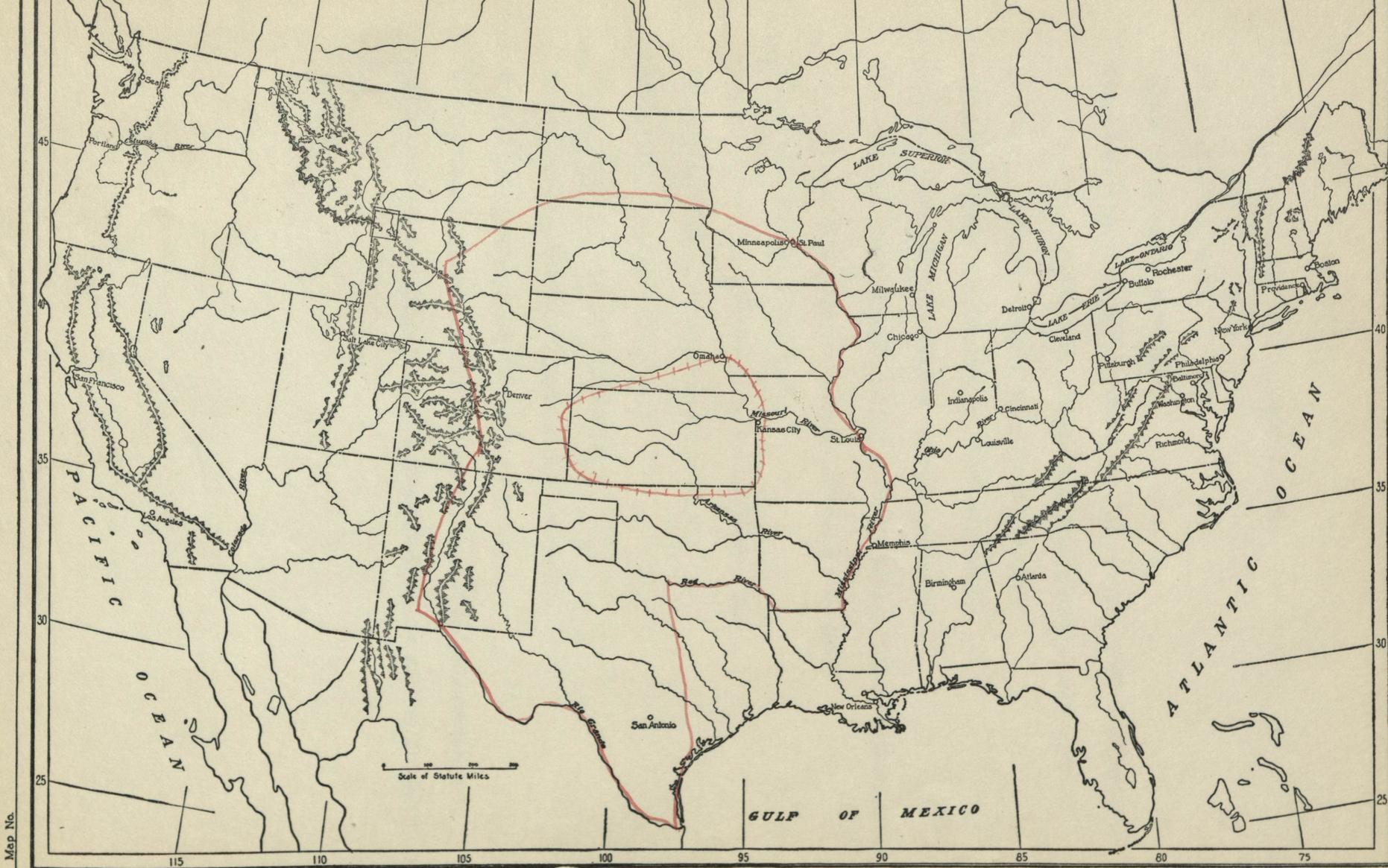
Lincoln and Fort Worth were made even more favorable than they were through former rulings.

(9) Joint Tariff Regulations. (a) In the matter of transportation of salt from Hutchinson, Kansas, the granting of joint tariffs by the regular railway companies to other companies, doing salt business only, was declared unlawful and joint tariffs under those conditions were not further permitted. (b) American Salt Company vs. Chicago, Rock Island & Pacific Railway. The granting of joint tariffs by the regular railway companies to small railway companies that are classed as common carriers, although controlled by salt companies as stockholders, was declared lawful.

II. Present Market Area

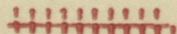
The smaller circle in the following map shows the market territory in which Kansas practically has a monopoly. This monopoly is the result of location and adjustment of rates. The territory within the larger circle, excluding the territory within the inner circle, is that part of the salt market of the United States in which Kansas is a competitor. Kansas producers have been able to compete more successfully as a result of their persistent effort in seeking adjustments through the commission. The rulings of the commission in the relative adjustment of rates from the various salt producing fields to this competitive territory have made it possible for Kansas producers to sell salt advantageously in the following states: Missouri, Iowa, Nebraska, South Dakota, North Dakota, Minnesota, Montana, Wyoming, Colorado, New Mexico, Texas, Oklahoma, and Arkansas.

This does not mean that the Kansas producers are the only ones who sell in these states, but it does mean that it is possible to compete satisfactorily in those states because of the present rate structure.



MAP NO. 29. The Historical Publishing Co., Topeka, Kansas.

Map III

 Market Territory of the U.S. in which Kansas Producers Practically Have a Monopoly
 Market Territory of the U.S. in which Kansas Producers Compete With Producers of Other Fields

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