

The Efficiency of Some Industrial Combinations in the United States

by Homer Hoyt

August 1st, 1913

Submitted to the Department of Economics of the
University of Kansas in partial fulfillment of the
requirements for the Degree of Master of Arts

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INDUSTRIAL COMBINATIONS
IN THE UNITED STATES

HOMER HOYT

1913

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A Thesis,

presented to

the

Department of Economics and the Dean of the
Graduate School, for the degree of Master of
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*Approved by the faculty of the Department
of Economics - Hamill*

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Chapter I. Introduction: The Trust Movement.

The growth of industrial combinations on a large and hitherto unprecedented scale in this country from 1898 to 1902 has changed the conditions under which big business is conducted and has given rise to problems, which have vexed economists and legislators. The results of this trust movement are just now becoming apparent, so recent is its origin. In fact, we are still in the midst of a great trend towards concentration, the ultimate outcome of which is a matter of conjecture. Consequently its significance is variously interpreted. On the one hand, it is maintained that trusts are inefficient, and that they are agencies of exploitation, and depredation. If this view be taken, then the trust movement marks a backward step in our economic development and the sooner we return to competitive production, the better. On the other hand, it is declared with equal ardor that trusts are efficient and that the age of trusts has come to stay. It will be the purpose of this discussion to examine the elements of strength and weakness in certain combinations and by a study of their origin, development and present methods of carrying on their business to determine whether or not they are

efficient according to economic standards. That is, do trusts lower the cost of production? Does the mere fact of combination eliminate industrial waste?

The history of combination in the United States naturally falls into two periods, the first beginning with the close of the Civil War and lasting until the return of prosperity after the panic of 1893, the second covering the last two decades.

The Civil War brought about the necessity of large scale production to supply the demands of a million soldiers. At its close, all energies were directed towards industrial expansion. Many causes contributed to make the next period one of rapid progress, chief of which were the development of railway systems and the opening of iron mines.

In the beginning, competition was universal, even in the field of transportation. Monopoly of any form was regarded as prejudicial to the public interest.

The first reason for concentration is found in the grouping of the large manufacturing industries according to the exigencies of the market. (a) Because of the great distances between the centers of population in this country, the cost of transportation becomes a very important item in the final cost of production. The source of the raw material has determined the location of many industries, of which the products manufactured are

(a) Meade, Trust Finance, p.8

of low value in proportion to their weight. Points thus conveniently situated with respect to natural resources become distributing centers for the finished products.

At first, in each center there are usually two or more concerns engaged in producing the same article. Because of the limitation of available sites in locations that have a natural strategic advantage, the entrance of new companies into the field becomes exceedingly difficult once the original plants are well established. But the competition that sooner or later ensues between these latter is most intense. The final outcome will be the survival of the best equipped, unless the possession of some special aid like a patented process enables the weaker to maintain itself. The tendency is thus for competition in local centers to end in combination.

Competition for a long time continues between the different industrial centers, but with the development of better transportation facilities, manufacturers widely separated by distance meet in a common market, and the competitive struggle is re-enacted on a larger scale. (a)

There are several circumstances which cause the competition thus engendered to bear with such severity upon the manufacturer that he usually turned to combination for relief.

(a) Van Hise, Concentration and Control, p.5

The natural effect of competition is to keep prices near the cost of production. But where large amounts of fixed capital are involved, price cutting does not stop at the cost of production, since it often requires a greater sacrifice to allow an expensive plant to lie idle than to operate it at a loss. Capital cannot be withdrawn freely from a losing industry. In the event of over-production, there is no definite price limit, below which a manufacturer will refuse to sell. He is led by his own fears to make concessions to buyers without regard to the cost of production.

The evils of competition are accentuated by the recurrence of panics and periods of industrial depression. Wide fluctuations in prices accompany the ups and downs of business. Under competitive conditions, supply does not accurately adjust itself to demand. An industry is encouraged to over-build by the high prices of the era of prosperity. When a breakdown occurs the productive capacity of the existing plants is far in excess of that demanded by the market. This causes the abandonment of the poorest plants. After the rebound from the panic, the reduced output is insufficient for the increased needs of consumers and new factories are called into existence. The repetition of this process entails waste.

The competitive system in its actual operation further tended to increase the losses of a panic and to lessen the profits that should recompense the producer for this added risk, because of the prevalence of long-time contracts. The bulk of the orders, made a year in advance of delivery, were booked during periods of low prices, when keen competition among manufacturers forced prices down to an unprofitable level.

The pool was the first form of combination. The early pools were organized to maintain profitable prices. Competition had proved to be the death of profits and combination was for self-preservation. Pools flourished in secret since they were illegal and their agreements unenforceable in a court at law.

The pool is thus a voluntary association of sellers to control prices. The object of the pool is accomplished ~~only~~ by a prohibition of sales below the quotation mutually agreed ^{upon} by its members. To make this effective a restriction of the output of all the plants of the association is generally required. Thus the sole aim of the pool is to secure united action in regard to prices. In discussing the pool, it is to be remembered that while characteristic of the first period of trust growth, it is still widely in evidence.

The pools in the cordage industry were formed

in 1860. A few years later the well-known Michigan Salt Association came into existence. Beginning in 1860 the production of salt in Michigan developed rapidly. By 1865 66 companies were in the field. Bitter competition soon commenced with the result that the weaker concerns were driven to the wall. Michigan was then the chief salt producing region and the business partook of the nature of a natural monopoly. Consequently the remedy for the evils of competition readily suggested itself. After a period of individual agreements, a more permanent association controlling four-fifths of all the salt shipped from the Saginaw Valley was formed. This organization suspended operations in 1871 because of internal dissensions. Five years passed without a pool. Unrestricted competition again forced down prices. At this juncture a circular was sent to all the salt manufacturers by the head of a small salt association. This read in part:

"The old adage, 'In union there is strength!' is true wherever you apply it and in the manufacture of salt there is no exception. The Michigan Salt Association has been inactive. ##### What has been the result? Salt has depreciated in value and dropped steadily down until now it has no market price on the Saginaw River and is quoted at only \$1.27 in Chicago and \$1.00 in Toledo. # # # The oldest manufacturers of the Syracuse, Kanawha and Ohio districts tell us that their experience dating 40 years back in some cases has always been, 'Organized we have prospered, unorganized we have not.'" (a)

This brought forth the desired action. A meeting was held shortly afterwards at which a new association controlling 85 per cent of the product was created.

(a) Ripley, Trusts, Pools and Corporations, p.6 .

The pools organized in the steel industry in the late eighties and early nineties show to best advantage the defects of this form of combination.

After trusts had been formed in the petroleum and sugar industries, there were repeated attempts at consolidation in the steel trade. These attempts took the form of loose associations, under which the individual concerns retained their identity and to a large extent their independence, at least complete independence in ownership. Two deserve special mention, the steel rail pool and the wire nail pool.

The Steel-Rail pool began its career on August 2, 1887 and lasted with a few lapses until 1897. The members of the pool agreed to limit their sales to the amounts allotted to each by the central authority, called the Board of Control. (a) The written agreement between the various parties was designed to provide a very effective control of the production of steel rails by members of the pool, who together manufactured at that time more than 90% of the country's output. (b)

This association had a most promising outlook, because all the large manufacturers of steel rails belonged to it, and the requirements of large capital and extensive plant made the establishment of a competing concern difficult. A further condition that favored its success was the fact that nearly all the purchases of steel rails

(a) For the full agreement, see Appendix A

(b) Bureau of Corporations on STEEL INDUSTRY, I: 71

were made at one season of the year—a fact that contributed much to stability.

Notwithstanding a reasonably effective organization the pool collapsed in 1893, on account of disagreements over allotments. It was reorganized in 1894 but finally broke up in 1897. During the scramble that followed rails were offered generally at \$15 a ton, although the nominal price before the break was \$28.

Thus the pool proved to be an unstable and precarious method of combination. It was easily disrupted by disagreements among its members. Any member could quit on short notice. The effect of even a few such withdrawals was always fatal to the success of the pool. Mutual distrust made this weakness all the more disastrous. It was inability to enforce agreements that led to the downfall of the pool.

In times of depression the management of a pool became exceedingly troublesome. Then the strong members exert strong internal pressure to break away from the fixed allotment. Dissolution was then hard to avoid. The following quotation from the Iron Age of December 16, 1896 shows the usual fate of the pool:

"The Billet Pool is now in session. The meeting promises to be a stormy one as there is considerable ill feeling against certain concerns, who are charged with having violated the pool agreement. The pool was practically dis-

solved as soon as the resignation of the Bellaire Steel Company was in the hands of the Secretary. There has been an open market on billets, sheet, and tin plate bars since Saturday and a scramble for business on the part of some mills. (a)

The prices that followed the disruption of the pool were often much lower than those prevailing before combination was attempted.

If, on the other hand, the pool attempted to force prices up, strong outside pressure was created. This is illustrated by the Wire-Nail Pool, which arbitrarily raised the base price of wire nails from \$0.85 a keg to \$2.55 in a single year. These high prices stimulated the investment of new capital in the field. Since \$10,000 was sufficient to equip a new plant, competition soon disrupted this association.

There was need of a more permanent organization if the evils of competition were to be avoided. Pools did more harm than good to an industry in the long run. Competition instead of being prevented was stimulated by the high prices of the pools. Strong tendencies were thus at work within and without to dissolve them. Moreover they had no legal sanction.

These difficulties were apparently removed by the "trustee" type of combination. This was a development of the eighties. The Standard Oil Company, after securing a monopoly of the business in 1879, formed a trust. This device was the model for many similar combinations during the following decade.

The second and most important trust agreement entered into by the Standard interests was that of Jan., 2 1882. It provided for a combination of the Standard Oil Company and affiliated groups, without a consolidated corporation. The various properties were controlled by a board of

(a) Quoted by Meade in his Trust Finance, p. 28.

trustees, to whom all shares were irrevocably assigned, and by whom "trust certificates" were issued to the former stockholders. That is, the stock of the various oil companies was exchanged for certificates in trust. The trustees were to keep the securities of these concerns, as long as the "trust" continued, but they did not acquire ownership of them, they merely held them in trust for all parties in interest jointly. It is important to note that if an individual owned before the organization of the trust a definite share in a given oil company, he lost title to that particular share and acquired a proportionate interest in all the property held by the trustees. The wording of the trust agreement indicates this:

"This is to certify that --- o--- is entitled to ---share in the equity of the property held by the trustees of the Standard Oil trust, transferable only on the books of said trustees or on surrender of this certificate." (a)

The holders of trust certificates received dividends and voted on trustees in practically the same fashion as holders of certificates of a voting trust do. The trustees controlled absolutely the policies of the numerous concerns whose stock they held, since they appointed the board of directors for each of the constituent companies.

(a) Bureau of Corporations, Petroleum Industry, Part I:69

This seemed a well nigh perfect device for the restriction of competition. Accordingly the Sugar "trust" and the Distiller's and Cattle-Feeder's "Trust" were organized in 1887 and plans were being made for a wider extension of the movement when it was cut short by a wave of hostile legislation, which terminated the career of the "trust" form.

Commencing with the Granger agitation of 1870, a deep-seated popular prejudice against any tendency towards monopoly began to express itself. By 1890, sixteen states had passed anti-trust acts. On July 2, of the same year the famous Sherman Anti-Trust Act, which declared that, "Every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce among the several states, " was illegal, became a law. (a)

The trustee form was particularly open to attack. Although pools were equally guilty under the law, the secrecy with which they were conducted practically gave them immunity. But the trust, the successor to the pool could not escape. Trust agreements were matters of record. Trustees could not deny the relationship that existed between them and the holders of trust certificates. The latter had at all times the right to inspect the books of the trust. Consequently it could not exist contrary to law. Such plain and open restraint of trade was condemned even by the common law. (b)

(a) See APPENDIX B.

(b) Meade, Trust Finance, p.33.

In 1890 the Attorney-General of New York brought suit against the North River Sugar Refining Company under the common law. The case was decided against the company, not only on the ground, as the presiding judge stated, that the concern was a combination---"the tendency of which is to prevent competition in its broad and general sense and to control, and thus at will to enhance, prices to the detriment of the public,-----but because the corporation entering the trust, had exceeded the powers of its charter! Similar proceedings were instituted against the Standard Oil Company in Ohio in 1892, with like result. (a)

Thus the adverse decisions of the courts destroyed for the time being the legal basis of combination. It now became necessary to find some new device, or else return to the pool, which had proved impossible to maintain.

The experience with pools and trusts had demonstrated to their managers that besides the advantage of controlling the market and preventing many of the evils of falling prices, combination also made possible saving in cost of production. To what extent these so-called economies were real and to what extent they were offered as a justification for monopoly, which was naturally abhorrent to the popular mind, is difficult to determine. No doubt both elements had their part. At any rate the following economies appealed strongly to trust managers and increased their eagerness to form combinations anew.

(a) Meade, Trust Finance, p. 33.

1. Saving in cross freights by shipping from the nearest factory of a combination.
2. The advantage accruing to a merger due to selection of the best patented processes from those employed by the former competitors.
3. The saving in running all plants at full capacity.
4. Conservation of natural resources. A combination avoids extreme price fluctuations, which are conducive to wasteful production.
5. Various other economies, such as saving in advertising, bad bills, traveling salesmen, advantage of buying in large quantities, utilization of by-products, etc., some of which can be realized by any large business unit.

Influenced partly by a desire to secure these economies, the combination interests discovered a new way to control trade, ---the holding company method.

In 1889 the State of New Jersey enacted a law, amending its previous corporation act, by which it was made one of the proper objects of incorporation for a company to be organized to hold the stock of other companies. This law had the most far-reaching consequences of any single piece of legislation enacted in the last half century. For the time, it nullified the stringent laws of sixteen states.

Thus a corporation, chartered in the State of New Jersey for the sole purpose of holding the securities of two separate companies in another state and thereby preventing competition between them could not be attacked by legal process in that state. The foreign state had no jurisdiction over the New Jersey corporation, it could take no cognizance of the relationship that existed between it and its two subsidiaries. Here was a device that successfully evaded hostile state laws,

The holding company was still liable to the condemnation of the federal anti-trust act. However in the E.C. Knight case, brought before the Supreme Court of the United States under this law, it was decided that the Sherman Act applied only to interstate commerce and that "the fact that an article is manufactured for export in an other state does not of itself make it an article of interstate commerce." (a)

Thus by substituting the relation of owner and property for that of trustee and trust, a form of combination was devised that was safe from legal interference, for the immediate future at least. The spirit and letter of the anti-trust acts were more flagrantly violated by the new organization than by the pool or the trust, but technically the holding company was above reproach. With the last obstacle removed, the way was now clear for consolidation on a grand scale.

The first period of trust history witnessed the evolution of the holding company from the pool. Several industrial combinations arose during this period. The Standard Oil Company attained monopolistic position in a single decade, 1870 to 1879. The Whiskey Trust was formed in 1887. The American Sugar Refining Company, organized in 1887, controlled 92 per cent of the sugar industry in 1892. The American Tobacco Company began its career in 1890.

(a) 156U.S. 16, Meade, Trust Finance, p.42.

Competition was the keynote of the thirty-two years from 1865 to 1897. Combinations, with the prominent exceptions already observed was short lived. (a) Pools had but a temporary existence, and Competition was bitter and unrestrained. Its very excesses forced men to form temporary alliances. So conspicuous was this, that even as late as 1900 the Industrial Commission concluded that "of all causes leading up to combination, competition so vigorous and so destructive that nearly all competing concerns were ruined, is to be given first place!"

In 1898 a new epoch was inaugurated. Within three years, 149 combinations with a total capitalization of \$3,578,650,000 were promoted. Consolidation was attempted in such industries as coal mining, iron and steel, copper, lead, paper, ~~meat~~ beef, leather, salt, starch, ice, glass, cordage paving and tobacco. (b)

The movement is essentially different from the tendency to sporadic and loose combination, so noticeable in the earlier period, in that it was largely directed by financial promoters. It had its beginnings in the summer of 1897. A large wheat crop increased the earnings of the Granger roads and started a "bull" movement on the market. Speculative buying commenced. The railroad securities rapidly passed to investment standing and became unavailable for this purpose.

(a) Commissioner, Corporations, Steel Ind. I. p.75.

(b) Luther Conant, in Am. Stat. Ass. March 1901.
Meade, Trust Finance, p.2.

The securities of the industrial combinations furnished the outlet for this demand. It was well known that the Standard Oil Company had paid 12% dividends during the panic. Trust prospectuses contained glowing accounts of the economies of combination. The investing public was led to expect impossible things and to believe that every consolidation was a potential Standard Oil Company.

The flotation of new enterprises was unduly stimulated by the abnormal demand for their securities. Many of the "trusts" were mere stock-selling schemes, practically all were overcapitalized, some enormously. Says the Financial Review of 1900 in its retrospect of 1899:

"The extreme industrial activity engendered a feeling of great confidence, very propitious to the creation and multiplication of new industrial enterprises.## The result was the formation and flotation of industrial undertakings of enormous magnitude and in unparalleled numbers. In every industry, in every line and branch of trade, great consolidations and amalgamations were planned and in most cases carried into effect." (a)

The part this feature played in the late trust movement is thus described by Luther Conant, Commissioner of Corporations :

"Indeed the proportions of the (consolidation) movement were largely determined by the opportunity to market the securities thus created. So long as the demand for such issues was maintained, the supply was steadily increased." (b)

(a) Quoted by Meade, in his Trust Finance, p.7.

(b) Commissioner of Corporations, Steel Industry, I. p.84

Thus the tendency towards concentration was far from being merely an outgrowth of technical and industrial considerations. It was ^{not} altogether spontaneous being expanded by artificial causes. Marked reluctance on the part of some owners to sell out the businesses which they had built up, had to be overcome by a sufficient inducement and this inducement was the excessive price obtainable from the securities of combinations. In most cases profits depended on the issue and sale to the public of large amounts of "watered" stock.

Only the unwillingness of the market to absorb further issues, checked the advance of the movement. The inevitable decline in values of industrial shares came, as the over-confidence subsided. There was a long and painful adjustment of stock market quotations to real valuation. In this process the holders of stock in these hasty and ill-advised ventures suffered. Combinations like the International Paper Company, National Salt Company, Union Bag and Paper Company, American Ice Company and American Linseed Oil Company were cast from the stock exchange. Some went through the process of liquidation. The great majority did not live up to the expectations of their promoters.

The public soon saw itseffolly, when the fever of speculation had passed. The Northern Securities Case, in effect declared the holding company illegal, insofar as it applied to railroads. Several years later suits were

instituted against the Standard Oil and American Tobacco Companies under the Sherman Law and the court declared them to be in restraint of trade and ordered their dissolution.

At present conditions are, very unsettled. The efficacy of dissolution is a point of contention and in the mean time there have been numerous suggestions in regard to the proper policy to be pursued in the treatment of trusts.

The combinations here presented have exercised monopolistic power in their respective fields and afford satisfactory evidence as to the efficiency of trust production.

C H A P T E R I I .

THE EFFICIENCY OF THE STANDARD OIL COMPANY .

Chapter II. The Standard Oil Company.

#1

No trust has been so much before the public view as the Standard Oil Company. Its officials have testified before Senate committees, and at several judicial hearings and its methods have been investigated and "exposed" by its former competitors, private agitators and governmental bodies through the medium of interviews, speeches, popular articles, court records and government reports. Familiar as its history is, its efficiency is partly a retrospective question, and one must repeat at the risk of irksomeness.

The Standard Oil Company differs from the other trusts to be hereafter studied, in that it is a "growth" and not a combination in the strict sense. "Combination" presumes the uniting of approximately equal factors. No refinery ever entered an alliance or joined the trust, in the petroleum industry, save on terms prescribed by the Standard.

The corporate history of this concern dates back to 1870 when the Standard Oil Company of Ohio was organized with a capital of \$1,000,000, by John D. Rockefeller, William Rockefeller, Henry M. Flagler, Samuel Andrews, and Stephen V. Harkness. At the outset it occupied a very modest position, controlling not over 10% of the refining capacity of the country and owning no plants outside of Cleveland. The refining of petroleum was then a competitive industry, the capital invested in each refinery

was small and the number of refineries large, at least 200. Within less than a decade, in pursuit of the ambitious scheme of Rockefeller and his associates "to carry on a business of some magnitude and importance in place of the small business each had heretofore carried on", they had succeeded in getting control of (90% of the refining capacity of the country. (a)

It is not known exactly when the Standard became a monopolistic concern. In 1870, it began to expand by buying out small plants and by forming "alliances". John D. Rockefeller was the president of the Petroleum Refiner's Association of 1872. In a similar organization, later perfected, ~~the~~ the Standard interests had sufficient influence to cause themselves to be appointed sole selling and purchasing agents for the association. It is probable that by 1875 strictly competitive conditions had ceased to obtain.

The dominating position reached by the Rockefeller group in the seventies has since been maintained. Analyzing the percentage of control over the total business in petroleum it is found that it has substantial monopoly in the three intermediary stages, i.e. transportation of crude oil refining, and marketing of the finished product, while it is relatively unimportant in production of crude oil.

The first stage is that of production of crude oil. Until 1885, crude oil wells were limited to a large area, covering 50,000 square miles, extending from Northern

(a) Report of the Industrial Commission, vol. 1, p. 795
quoted in Bureau of Corporations on Petroleum, I, p. 49.

Tennessee to Southern New York, parallel to the Appalachian mountains. The oil from this, the "Appalachian" field is surpassed by none in quality. Although constituting a diminishing percentage of the country's output of crude, because of the fact that it yields the largest proportion of high grade products (67% illuminating oil, 12% naphthas, 12.5% lubricating oil, 2% paraffin) it is still the most important source of the oil, consumed by the refineries. (a)

The Lima-Indiana field was discovered in 1886. It is only slightly inferior to the Appalachian in yield and in quality of the product. (b)

The Mid-Continent field embracing a considerable territory in Southeastern Kansas and Oklahoma, was first worked on a large scale in 1904. The crude is similar to Lima-Indiana. So far most of it has been stored.

The Gulf and California fields bring up the total large producing areas to five. These last, while enormously productive, give a very heavy, poor quality of oil. Very little of the product is refined, and consequently these fields may be ignored in a study of monopoly of finished product. (c)

That the Standard Oil Company does not owe its strength to possession of a limited natural resource is shown by the fact that in the Appalachian field it produced

(a) Bureau of Corporations, Petroleum Industry, I p. 100, 108

(b) Ibid. p. 101

(c) Ibid p. 107

only 35.63% of the crude oil in 1898 and its average was 22.32% for the nine years, 1890-1898. Similar figures for the Lima-Indiana field were 35% and 39.18%. (a) Absence of monopoly over the raw material is explained by two circumstances. First, it would have caused even more bitter public hostility against the Standard Oil Company than existed before, since control of a limited natural resource is regarded as especially obnoxious by many. Secondly, the more important consideration is that because of the peculiar speculative character of the oil business, it probably costs the Standard less on the whole to buy a large part of its crude oil from others than it would cost to produce the entire supply itself. (b)

In the second stage, pipe line transportation, the trust has almost complete monopoly. It has now a continuous system of pipe lines from Oklahoma to the Atlantic seaboard with a vast network of gathering pipes, reaching to practically every well in the oil centers. This line was built at an original cost of \$50,000,000 and it has since been extended. In percentages, the Standard Oil Company controls 88.8% of the pipe line capacity of the Appalachian field, where it meets the competition of the Pure Oil Company and from 95-97% of the capacity in the Mid-Continent and Lima-Indiana field. (c)

A close relationship exists between monopoly over transportation agencies and the ownership of a large per-

(a) Bureau of Corporations, Petroleum Industry, I p.114

(b) Ibid. p.120

(c) Ibid. p.139,145,146.

centage of the refining capacity of the country. Possessing the extraordinary advantage of pipe line monopoly the trust has not only been able to locate its refineries at strategic points, within convenient access of large markets so that the freight charges for shipping refined oil are reduced to the lowest possible sum, but it has been able to limit at will the amounts of crude secured by most rivals

The Standard owns 23 large refineries. These consume 84.2% of the crude oil that is passed through refiner while 75 independent plants consume only 15.8%. The Standard refinery at Bayonne N.J., alone produces more than all the independents combined. The degree of control exercised by the trust varies from 67.2% in the Gulf, 79.8% in the California, 94.5% in the Lima-Indiana, 98.9% in the Colorado to 99.1% in the Mid-Continent field. (Appalachian 80.5%)

The last step in the process is marketing agencies. It is important to note that the trust has almost entirely eliminated the middleman, selling directly to the retailer through its tank-wagon system of bulk delivery. In order to ascertain the extent of this control, the Bureau of Corporations sent out circular letters to 145,000 retail dealers, selected at random from trade lists. 5,397 dealers from 3,854 towns answered. 4,829 of this number bought their oil directly from the Standard or its affiliated concerns. Counting purchases from jobbers, the percentage of dealers who reported purchases from the trust was 93.8%. Only 503 dealers or 9.3% traded with independents. (b)

(a) Bureau of Corporations. Petroleum Industry I, p. 289

(b) Ibid p. 295

Even in the petroleum industry where one organization controls seven-eighths of the business, competition still has its influence. The condition is not that of monopoly in its absolute sense for the struggle between the trust and the independents is ever going on. The important fact is that where monopolistic position is the result of growth as in the case of the Standard Oil Co, the rapid rise of one concern at the expense of others has been due to its possession of some competitive advantage over the field. All combinations are based on competitive advantage, but that does not necessarily mean that all have an inherent ability to sell the same goods cheaper than their rivals, because productive efficiency is but one of the competitive advantages. The methods used by trusts to attain control are partly the methods employed by every business organization to increase its sales. The extent to which any concern is successful may depend on its productive efficiency, that is, on favorable location of plants, the great ability of its managers and superior arrangement of machinery, or it may depend on advantages decidedly unfair in their nature, which tend to limit the activity of competitors by terrorism and by erecting artificial restraints about the market, which become especially opprobrious when monopoly is aimed at.

First, what methods resulted so quickly in monopoly? The Standard Oil Company from its inception entered on the policy of acquiring refineries. Before 1877 it had also secured possession of the local pipe lines. The idea of using pipes did not originate with the Standard, but it was quick to realize their importance, once its competitors had put them in operation. It forced the Pennsylvania railroad to surrender the Empire Transportation Company in 1877, and thereby gained the mastery of the local situation. These events however but mark the outward results of secret forces. (a)

In 1871 the South Improvement Company was organized in Pennsylvania, under an old charter, which conferred broad and convenient powers. The stockholders either were then or shortly after became connected with the Standard. It was represented to certain railroads that this company was composed of the leading oilrefiners of the country, although at the start it was an alter ego of the Standard Oil Company. At any rate, contracts were actually entered into between this concern and the Pennsylvania, Erie and New York Central, providing for rebates amounting to 40 and 50% of the gross rate on crude oil and 25-40% of the gross rate on refined oil to be paid to the South Improvement Company on all shipments made by it. What is even more extraordinary another clause of the contract stipulated that this concern should receive the same rebate on all shipments sent by

(a) Bureau of Corporations Petroleum Industry, I p.53,60

outside parties. Further the South Improvement Company was to be furnished with a copy of the way bills of all oil shipments, which ^{would} give it complete information as to the movements of competitors. There were other features, skillfully arranged so as to work to the secret advantage of the combination. Thus Cleveland is referred to as adjacent to Titusville and is given the same rate for shipments east, whereas in reality it is 150 miles due west of the oil regions, in the vicinity of Titusville. Practically all the Standard refineries were then located at Cleveland but it was placed on an equality with the oil centers by discriminating rates. (a)

No sooner was this contract made, than the Standard Oil interests used it as a club to frighten competitors into selling out to it. It is significant that 17 refineries were acquired by the Rockefeller group at this time. (b)

These iniquitous provisions, however, aroused a storm of opposition, when rumor of their purport got abroad. This hostility resulted in the charter of the South Improvement Company being annulled and its contracts abrogated. (c)

The important features of this scheme were actually carried out, although apparently abandoned. Thus the growing combination secured enormous secret rebates during this period. The published rate from Western Pennsylvania to the seaboard was \$1.40 a barrel for refined oil. The drawbacks and commissions allowed the Standard totaled 51.5 cents

(a) Bureau of Corporations, Petroleum Industry, I p. 59

(b) United States vs. Standard Oil Co., Brief vol. I, p. 17

(c) See Appendix C.

and thus the secret rate enjoyed by it was 88.5 cents. The officers of the railroads did not deny that these rebates were paid, Cassatt of the Pennsylvania admitting it frequently. This practice continued as late as 1880. On every hand there were evidences of either open favoritism or manipulation of classification tables, so that independents were heavily handicapped in their fight against the growing oil monopoly. (a) So pronounced were these instances that the Bureau of Corporations concluded that it was due to these extraordinary favors that the Standard received, that it was able to eliminate competition in the seventies. "The railroad rebate," says Herbert Knox Smith, "was the cornerstone of the Standard Oil Combination." (b)

The later development of the Standard Oil Company is characterized by the abuse of transportation agents and by price discrimination.

These methods tend to discredit the Standard's claim of superior efficiency, in the opinion of many.

It would be nearer the truth to say that the illegal practices detract from efficiency, as shown by profits since wrong-doing would not hinder the efficient operation of plant or lessen superior ability.

(a) Bureau of Corporations, Petroleum, I, p 64.

(b) Ibid, p 24.

The railway rebate, grievous as it was, would have been deprived of much of its force, had the rivals of the trust been able to ~~have~~ recourse to pipe lines for the transportation of crude oil, since then they could have reduced freight charges by locating their refineries at distributing centers. If the Standard Oil Company would accept the crude oil of independents for shipment and would transport it for them without restriction and at a reasonable charge, they would not be handicapped in competition with the Combination. But the Standard has imposed impossible conditions on the rendering of this service, thus practically refusing to act as common carrier, in defiance of both state and federal law, It has not only closed its own pipes to competitors, but it has crushed independents, who tried to establish their own means of transportation. With the exception of a few small lines, it enjoys exclusive use of both local and trunk pipe lines, the possession of which are indispensable to the most efficient operation. The methods pursued to attain this end may be briefly summarized.

One practice was to obtain complete or partial control of independent pipe lines by purchasing their securities. This enabled the Standard Oil Company either to secure a majority interest or else a sufficient minority to insure a representative on the board of directors. In this way it forced the Tidewater Company into virtual subjection on

-the concern that first conceived and carried into effect a trunk pipe line from the oil fields of Pennsylvania to the seaboard. This project was regarded as impossible by the trust, yet when the value of the new agency was demonstrated by a rival, it employed unfair methods to dispossess it of the fruits of its superior foresight. The Standard attempted to gain control of the Pure Oil Company by this same process in the nineties, but it was baffled by the device of the voting trust. (a)

Another unfair practice often resorted to by the Combination was to buy up land along the route which the independent pipe line company intended to follow or to purchase strips of land across such routes. In its opposition to the building of competing lines, it enlisted the support of the railroads, in denying a rival the right to cross under their tracks. Where pipe lines do not have the right of eminent domain, this proved to be an insurmountable obstacle. This action compelled the Pure Oil Company to abandon its attempt to reach Bar Harbor, to tear up its line, laid in New Jersey and to turn southward to Philadelphia. Again the Standard Oil Company was instrumental, after it had the completed its own system, in securing the passage of laws refusing pipe lines, the power of eminent domain. (b)

A third device to cripple the independent was to buy out the refineries, upon which it depended. Sincere interest and depreciation charges are the principal items of expense

(a) Bureau of Corporations, Petroleum Industry, I p.126
(b) Ibid p.26

in the operation of a pipe line, ~~and~~ any diminution in the volume of oil carried, more than proportionately cuts into profits.

Probably the most effective of all was the policy of the Standard to pay premiums of from 5 to 20 cents a barrel to producers in the localities, reached by the independent pipes. Because of the enormous volume of its business higher prices in a few places would not appreciably influence its average price, while such discrimination most oppressively restricted competitors. (a) ✓

Having acquired by such tactics as these, monopoly of the chief transportation medium, the Standard Oil Company refuses to permit others to use it.

Pipe lines had long before the passage of federal legislation been included in the definition of common carrier according to the laws of several states, but the trust had ignored their provisions. The first section of the Hepburn act of June 1906 declared that all pipe lines, used for the transportation of oil were common carriers and as such subject to all the provisions of the Interstate Commerce Act of 1887. This law requires filing of rates, publication of reports and it prohibits unreasonable charges. (b) The Standard has rendered it practically nugatory in the following ways.

(a) Bureau of Corporations, Petroleum Industry, I., p25

(b) Ibid p.183

First, many of the pipe line companies controlled by the Standard Oil Company have altogether refused to file rates, alleging as their reason for not doing so, that they are operating wholly within the boundaries of a single state. This is in part true as the Trust has reapportioned its pipe line property on a territorial basis, so that no subsidiary owns pipes outside of the state of ^{its} incorporation. However, when it is considered that each line forms the part of a continuous system controlled by a single organization and that arbitrary divisions at state lines were made after 1906 it becomes clear that the transaction was designed as a subterfuge to evade the law.

Second, such of the Standard's companies as filed tariffs, named rates that were altogether excessive. The Bureau found that they were practically the same as the rail charges, notwithstanding the fact that the cost of pipe line transportation of oil is not over one-third of the cost of a similar service by rail. In fact, the Trust earns from 3 to 5 times a reasonable return on its pipe lines.

Third, where a schedule of rates was published, it was to an obscure pumping station on state line, where there were no facilities for receiving oil and where no one wanted it delivered. It is significant that no rates were specified to New York Harbor or Baltimore where the independents had refineries. The reason is plain. Had it filed rates it would have been compelled to accept oil

for shipment at reasonable rates, which it was unwilling to do.

Fourth, the tariffs of the Standard Oil companies require shipments to be made in quantities of not less than 75,000 barrels and in the case of some lines, 300,000 barrels is the minimum that will be accepted. Since that amount exceeds the annual capacity of most of the independent refineries, it is prohibitive.

Thus the Standard Oil Company, in the guise of compliance, has proceeded in contempt of the Hepburn Act. The only defense it has offered to excuse its admitted violations of the law, is that the conditions of pipe line transportation are such that it to handle any but its own oil, is physically impossible. It makes the plea that the quality of the crude oil varies so greatly that it would be impracticable to mix the consignments and if this was done, injustice would be worked. The investigations of the Bureau and evidence in the dissolution proceedings against the Standard Oil Company, proved that this contention was of no commercial importance, it was shown that the crude oil of the same field was alike in quality, that no independent shipper would expect a small quantity of his oil to be kept separate from the common stock, that in fact it made little difference in shipments from the same field whether he received the precise stock consigned, or an equal amount of the average grade, and that large volumes of crudes of different quality could be sent through the same pipe, one after another, with no appreciable contamination of the better grade by the

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poorer, and that therefore there could be no practical objection to the use of the pipe lines as common carriers. (a)

While the Combination has thus made itself independent of the railroads in the transportation of crude oil, it has, until recently, continued to receive from them extraordinary favors in the shipping of its refined product. It has habitually been the recipient not only of unjust discrimination in open rates, but secret rebates as well. In 1904 the Bureau of Corporations uncovered hidden rates, which saved the Standard \$750,000 yearly, and estimated that it was probably benefited as much more by discrimination in the open rates, such as lower rates from Whiting and other leading standard shipping points, than from large distributing centers in the immediate vicinity. (b)

A few of these cases are of especial importance in showing by what method, the trust controls the sale of oil, in certain territories.

1. Northeastern New York and Vermont were, in 1904 under the complete domination of the trust, because of the secret rates it enjoyed from its refineries at Olean (N.Y.) to Rochester. The Pennsylvania railroad had given it a special rate of 7 cents a barrel, while independents adjacent to Olean paid 38 cents for practically the same service. By a combination of secret rates the trust has been able to send its oil into Vermont at a freight cost of from 15 to 21 cents a 100 pounds, while its competitors were compelled to pay 33 to 50 cents. This saved the Standard Oil

(a) Bureau of Corporation, Petroleum Industry, I, p196
U.S. vs. Standard, Brief for Petitioner, vol. I: 255-273
(b) Commissioner of Corp., Transportation P. xxi

Company \$115,000 during 1904 alone. Furthermore all the shipments from Olean on these secret rates were blind-billed, that is, the rates were not shown on the waybills. (a)

2. The Standard Oil Company, until 1904, kept up absolute control of most of the territory south of the Ohio River and east of the Mississippi by means of secret rates and open discriminations from Whiting, Ind. The published rate from Whiting to Birmingham, Ala. was 44 cents per 100 lbs. For at least ten years, the trust, by means of a secret combination of rates by way of Grand Junction, Tenn., over the lines of the Chicago and Eastern Illinois, the Illinois Central, and the Southern Railway, has shipped oil to Birmingham for 29.5 cents. The Toledo competitor, no farther distant, had to pay 47.5 cents. (b) The saving affected in this way amounted to \$70,000, per year. Besides, the Standard was granted a so-called State rate of 66-8 cents from Whiting to Evansville, Ind, when the open rate was 11 cents.

#3. Another notorious secret rate was ^{that} from Whiting to East St. Louis, a distributing point for oil destined for the Southeast. The Standard was favored with a secret rate of 6-6.25 cents, when the published tariff was 18 cents. This arrangement was worth \$240,000 annually.

4. Finally, rebates in California have benefited the Combination by at least \$100,000 a year.

Thus, it is evident, that the Standard Oil Company up to 1904 possessed an enormous unfair advantage over competitors, in the form of secret rates, which enabled it to exclude them from many markets.

(a) Commissioner of Corporations, REPORT on Transportation of Petroleum. p.xxiii.

(b) Ibid, quoted from same. J.R. Garfield. 1906

Of all the unfair practices of the Standard Oil Company, that of cutting prices in localities, where competition prevails, coupled with the enhancement of prices of the same quality of refined oil in the no-competition areas, is the most frequently complained of. Price discrimination is a question of marketing methods. The Trust not only refines, but markets the largest percentage of its oil, selling directly to the retail dealer. For this purpose, it owns tank cars, tank wagons for local delivery, and tank steamers for the shipment of oil to foreign countries. Consequently prices paid for kerosene, gasoline, etc., in the various districts of the country are practically all local prices, i.e., they bear no relation to the range of prices in the central markets. If prices are excessive in a given town, the store keeper has no way of taking advantage of lower prices elsewhere, because he would have to order the oil to be shipped in barrels, and the cost of transporting oil in barrels, being much higher than the cost of tank car shipment would consume the gain in price of oil. Moreover the Standard controls 85% of all the ~~oil~~ business, leaving only 15% for its competitors. Even if this fifteen per cent was in the hands of one concern, it could not maintain the extensive marketing system of the Trust. But as it is divided among a great many small companies, the business of each is necessarily confined to limited sectors. The Standard Oil Company restricts their field even more by price discrimination. (a)

That the Standard Oil Company makes remarkable differences in the prices it charges for oil in the different towns and sections of the United States and that the sole cause of most of the conspicuous variations is differences in the degree of competition, is clearly shown by the price statistics of the Standard itself and introduced in evidence by the Government in its recent suit. The records kept by the Combination's statistical department also exhibit the profits per gallon on all refined oil sold in the large marketing territories into which it has divided the country, and the margin of profit of the marketing companies upon the prices in each town in the smaller marketing divisions. Furthermore the records of the same department show the approximate amount of business done by the competitors of the Trust in certain cities and sections of the United States. (a)

Taking first the large areas, composed of a group of states or large parts of states, a wide disparity in prices and profits based on prices is at once evident. In 1899 the rate of profit ranged from 0.52 cents a gallon in the Eastern Pennsylvania division, where there was 18.7% of competition, to 4.36 in the Rocky Mountain States, where there was only 0.2% of competition. Again, the average profit in the Pittsburg territory was 0.66 cents, while on the Pacific Coast it was 2.86 cents, due to a difference in degree of competition from 5.7 to 15.8%. In 1906 the variations were less marked, yet profits ranged from 0.84 to 3.06 cents. (b)

(a) Commissioner of Corporations, Petroleum, Part II, p433
(b) U.S. v. Standard, Brief for Petitioner, vol. 2 pp. 6-7

Averages for large areas, by no means show the full extent of price discrimination. In many sections in each division the prices are high, in other sections of the same division, very low, which the average results would not indicate. For example, there is the Waters-Pierce Oil company, a marketing agency of the Standard, whose territory corresponds to one of its larger divisions, covering South eastern United States and Mexico. In 1896 during a period of severe competition in St. Louis, this concern lost 1.3 cents on every gallon sold there, while it made a profit of 2 cents in its North Texas division. In 1904 the range between the same localities was 0.6 cents to 4.4 cents. (a)

The extraordinary differences in prices due to different percentages of competition can be more forceably shown, if one compares the prices charged in towns in the same state. For instance, in Springfield, Massachusetts, where there was 21.7% of competition in October 1904, water-white oil was sold at 8 cents a gallon at a loss of 0.88 cent, while in other towns nearby like Brockton, Fall River and Lowell, where there was either no competition or very little, the price was 10.5 and 11 cents a gallon, with a margin of profit of from 1.72 to 2.18 cents. In New York State, the price at Binghamton, where the Standard encountered 39.1% of competition, the price of oil was 9.5 cents a gallon and the profit 1 cent, but in New York city, oil sold at 10.98 cents at a profit of 2.31 cents,

(a) Bureau of Corporations, Petroleum, Part II, p. 440

probably because only 8.6 % of competition prevailed. In Pennsylvania, like variations occur, At Chester the Standard charged 8.5 cents for oil to meet 20.9% of competition, but in Altoona the price was 11 cents and the profit 2.98 cents a gallon, the Trust having no competitor there. In the state of Ohio in 1904 the Columbus price was 9.5 cents, with only 2.3% of competition, but in Cincinnati, independents had 45.3% of the trade, and the Standard cut the price to 7 cents a gallon, representing a loss to itself of 1.09 cents. In the Middle West, at Duluth, the Trust sold its illuminating oil for 8.5 cents at a loss of 0.88 cent to meet competition, while at Mankato, where there was no competition, the price was 11.5 cents and the margin of profit 2.24 cents a gallon. The widest disparity exists in the Western States. In Albuquerque, New Mexico, oil was sold by the Combination for 23 cents a gallon, yielding it a profit of 6.48 cents. The difference between this and the Cincinnati price was no less than 16 cents a gallon. Most striking of all was the situation in California. At Los Angeles, where there was 33.4% of competition, the price was 7.5 cents a gallon, resulting in a loss of 3.16 cents. At Sacramento, the Standard had complete monopoly and fixed the price at 13 cents, earning 2.45 cents a gallon. Likewise competition was entirely absent at Seattle, Portland and Tacoma, and the price was 15 cents, allowing a margin of profits of 4 cents a gallon. (a)

(a) U.S. Vs. Standard, Brief of Facts for Petitioner II: 8-12
See Appendix.

These foregoing statistics for the different towns exhibit the prices charged at main stations. But many of the cities are the headquarters for substations in the immediate vicinity. If one consults the following table, extraordinary differences in prices will be found in the same general locality: (a)

REFINED OIL--LOW MARGINS AND PRICES AND HIGH MARGINS AND PRICES IN THE SAME MARKETING DIVISIONS.

Name	Lowest Margins	Highest Margins	Prices Corresponding	
			Lowest Margins	Highest Margins
Albuquerque	0.26	7.12	14.00	23.00
Baltimore	0.09	2.11	8.50	11.00
Birmingham	1.56	3.76	13.50	14.50
Cincinnati	-1.09	1.86	7.00	11.00
Cleveland	-.16	2.48	7.00	10.50
Dayton	-.31	1.05	7.50	9.00
Davenport	..04	1.54	10.00	11.50
Decatur	.08	1.98	9.50	11.00
Detroit	.24	2.53	8.50	11.50
Duluth	-.88	3.23	8.50	13.00
Dubuque	-.19	2.85	10.00	13.00
Joliet	-.48	1.80	8.00	11.00
K. C.	.23	2.66	10.00	13.00
Los Angeles	-3.40	-.54	7.50	10.50
Louisville	-.38	2.10	9.50	13.50
Memphis	.18	2.78	10.50	14.00
Minneapolis	.24	2.58	9.50	13.60
Nashville	.73	3.24	12.00	14.00
New Orleans	-1.35	2.46	9.50	12.50
Peoria	..35	2.19	9.50	11.00
Richmond	-.27	2.85	8.00	12.00
Sioux City	.35	2.77	12.00	15.00
Springfield	-.88	1.29	8.00	10.00
Wichita	.40	3.57	11.00	15.00
Wilmington.	.62	2.79	11.00	14.00

The Bureau of Corporations has collected a mass of data to prove that these differences in prices are also due to differences in the degree of competition.

Prices of oil, not only reflect the activity of the Standard's competitors in many towns at a given date, but the direction of their movement is also determined by variations in the amount of competition. Thus, in January 1902 the Trust sold oil at Atlanta and New Orleans at the same price--10 cents. By October the price at Atlanta had risen to 11.5 cents ~~but~~ that at New Orleans had fallen to 8 cents. The margin at the latter place had declined ~~un-~~ from a profit of 1.69 cents to a loss of 0.19 cent a galⁿ, while at Atlanta, profits increased from 0.87 to 1.93 cents. During the year, the independ^{ents} secured at one time, 34% of the oil business at New Orleans, and the Standard waged a bitter conflict against them, but at Atlanta, no competition existed. (a)

Besides cutting prices below its own cost of production, in districts where it encounters important opposition, the Standard Oil Company makes special, secret concessions to the customer's of independent concerns, in order to get their trade. To accomplish this purpose, it organizes bogus independent companies. These are marketing agencies, with no formal organization, generally in charge of a tank wagon driver, who is instructed to follow the wagon^s of independents and offer to sell their patrons oil at reduced prices. If necessary a second peddler's outfit is installed by the Standard, which also poses as an independent, while under orders to sell oil at any price

to get the trade of competitors. Scores of cases might be cited where independents were driven out by these methods. (a) As soon as competition was killed, the bogus companies, ceased to operate or were removed to other fields, and prices were raised to their old level. In the meantime the Standard could maintain its prices to its "regular" customers, through the ordinary delivery system. Thus it was able to wage competitive warfare of the most predatory kind without involving its own business and without reducing the prices on the larger part of the product. Rarely was this practice successfully combated by its rivals. Sometimes independents persuaded dealers to buy oil of them, by holding out as inducement that if they did so, a driver of the bogus company would immediately visit them and sell them oil at extremely low rates. (b)

In spite of the prevalence of unusually low prices in limited localities, where competition is active the average price level fixed by the Trust in this country is much higher than that of foreign nations, where the Trust markets one-half of its refined oil.

This fact is important in explanation of the increase in the foreign trade of the Standard, so often put forward as an argument for its efficiency.

The New York export price for oil, fixed from day to day by the Standard Oil Company, has for many years

(a) U.S. v Standard, Brief for Petitioner II, pp. 21-526.
(b) Ibid P 143

been materially less than the average domestic price. In 1898 oil for export was quoted at 3.8 cents a gallon, when the price for home consumption was 7.5 cents. In 1903, the averages were respectively 5.9 and 10.9 cents.

To arrive at a more exact basis of comparison, the agents of the Bureau of Corporations visited many towns abroad, where the prices paid by retail dealers for oil delivered by tank wagon were secured. In contrasting domestic with foreign prices, it is necessary to allow 1 cent a gallon for the difference in quality between the "water-white" oil sold in the United States and the "standard-white oil" sold abroad. This is a fair measure of the superiority of the former grade, according to the Combination's own estimate. After making the deduction, it is found that the American price was 2 cents a gallon higher than the German price for the period, June to August 1903, 2.2 cents higher than the English price, and 2.8 cents a gallon higher than the Standard's price in the Orient for the same time. (a)

In justification of the discrimination against the American consumer, the defender's of the Oil Company maintain that there was an over-supply of crude oil in the United States in 1904, which necessitated the sale of the surplus abroad at low prices. Investigation shows this to be untrue. In fact, the Standard made large purchases of crude oil in Russia and built refineries in Roumania to supply its export trade in 1904. It is apparent that

(a) Commissioner of Corporations, REPORT. Petroleum II, p. 20.

~~that~~ the Standard is not actuated by any desire to further American commercial interests apart from the extension of its monopolistic position. (a)

The sale of lubricating oil to the railroads by the Galena Signal Oil Company, a subsidiary of the Standard, is characterized by discrimination between different lines. This constitutes the third and last case of price discrimination.

The Galena Company controls 95% of the sales of lubricants. The Bureau of Corporations discovered 94 railroads, that were each under separate contract with it. These contracts are alike in one ~~particular~~ particular. The invoice prices (48¢ a gallon for valve oil, etc) are the same for all the roads. But a clause in every contract guarantees that the cost to the railroads shall not exceed a certain sum per ton mile. The reduction from invoice prices, allowed by the guaranty clauses, varies from 51% in the case of the Pennsylvania to 3.2% for 17 roads. 41 paid the full price. The most remarkable thing about the arrangement is that the railroads have refused to receive bids from independents. The Norfolk and Western was offered lubricants of the best quality, at half the prices charged by the Galena, by a competitor, but it voluntarily paid the higher rate. The Bureau estimates that the railroads of the country pay \$2,000,000 a year for their lubricants, more than the independents would sell the same oil for. T(b)

(a) Commissioner of Corporations, On Petroleum, II : 429

(b) Ibid pp. 670-736.

#3 Profits.

The unfair competitive methods, enumerated in the preceding section, by no means exhaust the list. The Standard Oil Company has manipulated the public inspection of illuminating oil, so that the oil of its rivals has been excluded from the market, it has maintained an elaborate system of espionage on its competitors, by bribing the employees of railroads to furnish it with information concerning the destination of their shipments and it has not scrupled to practice petty fraud and deception, when such action would cripple a competitor. A consideration of these acts, from the lesser evils, just mentioned, to the long-continued wrongdoing of greater magnitude; to abuse of the quasi-public function of pipe lines, ^(to the enormous railway rebates,) to the world-wide policy of price discrimination, with which the history of the Combination is ~~replete~~ replete, and which tend to fortify and strengthen each other, so that taken in the aggregate they constitute one overwhelming unfair advantage, leads one irresistably to the conclusion, that it was through their instrumentality and not through superior efficiency, that the Standard Oil Company outstripped its competitors and gained monopoly. It becomes further apparent that the illegitimate practices that enabled the Standard to direct a campaign against its rivals, so effectively that their operations were confined to narrow limits, if they themselves were not destroyed, each contributed to its profits, so that the immensity of its total earnings is not a measure of its efficiency.

It is a mistake, however, to judge the efficiency of the Trust entirely by the methods it has pursued in the past or even by its present conduct and to ignore the results. These results express themselves in terms of profits. The ability to earn large profits is said to be the conclusive criterion of efficiency. (a) This is true in general under strictly competitive regime. When a concern acquires some monopolistic power, but not complete monopoly, as is the case with the Standard, one must modify this statement and concede that the largest company in the field could add to its legitimate profits, derived from superior competency, an extra amount due to power to enhance prices. The question to be decided is what percentage of the Standard's profits is the result of efficiency, and what percentage is due to rebates from railroads, pipe line abuses and price discrimination. The proper procedure is to determine, first the total profits and second to find what amount is attributable to differences in cost of production between the Trust and the independents.

Data as to the Standard's profits are incomplete since the Company itself has published no reports of its business, other than its rate of dividends. Statistics obtained in a lawsuit, some years ago disclosed the profits for the period, 1882-1897. The rate varied from 10.3% on the tangible investment in 1884 to 23.1% in 1896, yielding a total profit of \$244,026,000. for the whole time. (b)

(a) Schnacke, Thesis, 1912. The Sherman Law. U. Of Kansas.
(b) Commissioner of Corporations, Petroleum, II p. 527

These profits were completely overshadowed by those of the period 1897-1906, when \$387,434,444 was paid in dividends at a rate, varying from 30 to 48 per cent. The surplus in excess of profits for the 3 years, 1903-1905 is known to be \$82,000,000 in round numbers, and making a guess at the corresponding figures for the 6 years, 1897-1902 and 1906, the combined total ~~dividends and surplus~~ ~~surplus over dividends~~ would probably amount to at least \$790,000,000.

This huge profit has been earned on an investment originally valued at less than \$75,000,000. While the Standard has spent large sums on improvements since, it was able to do so only because of unusual earnings in the past. Even on the basis of a property valuation of \$260,000,000 it has made 25% on its investment in the past few years. When it is considered that much the larger part of its profits come from its domestic business, which constitute only one-half of its total business, it is readily perceived that the rate of profit in this country has greatly exceeded that percentage.

Profits of the Trust's subsidiaries confirm the conclusion that its average earnings have been exorbitant. (a) Thus the Waters-Pierce showed a rate of profit of 47.2% in 1904.

Furthermore the Bureau of Corporations estimated that the average rate of profit of the Standard's refineries was 42% or 2.4 cents a gallon on refined oil. (b)

To the profit per gallon at the refineries should be added the profit of the pipe lines, which would bring up the Standard's average profit to 3 cents a gallon.

(a) Commissioner, Corp. Report on Petroleum Ind. II p. 535

(b) Ibid, p. 594

There representatives of the Standard Oil Company attribute these great and increasing profits to its superior efficiency alone. They assert, in addition that the results of monopoly have been most beneficial to the consumer, in that the margin between the price of crude oil and its finished products has been steadily reduced by improved processes introduced by the trust, which would imply that the advantage over its competitors due to its unique ability is astonishingly great. This involves the assumption that it is not only more efficient than the present independents, but also more efficient than any concern, which could have developed had the field been unrestricted. (a)

A comparison of the cost of production between the Standard and its competitors, now in existence, favors the Trust largely because of the lower cost, per unit, of operating an extended pipe line system. The Pure Oil Company, the Standard chief rival in the pipe line business, expends about 8¢ a barrel (42g) for the local collection of its crude oil, while the operating cost to the Standard does not exceed 5¢ a barrel. The smaller concern, furthermore, requires a larger investment per unit of product than the Trust. The Pure Oil Company must receive 15¢ a barrel in order to pay a depreciation allowance of 5% and 10% profit on the investment in its gathering pipes, while 5¢ a barrel will cover a similar charge for the Standard. Thus in the cost of conveying the oil from the wells to the main pipes, the Combination has an advantage of 13¢ a barrel over its most efficient competitor. (b)

(a) Commissioner, Corporations, Petroleum Ind. II. p. 614.
(b) Ibid, p. 645.

In like manner, the Standard trunk lines transport crude oil from Western Pennsylvania to the seaboard at an operating cost of 3.32¢ a barrel, in comparison with the Pure Oil Company's cost of 7.33¢, for an equal service. Interest and depreciation charges are 15.5¢ a barrel less on the main line of the Standard than on that of the independent. The total difference in crude oil transportation cost is 31¢ a barrel or 3/4 ¢ a gallon in favor of the Trust. (a)

The Standard refineries are operated at practically the same cost as the nine most important independent refineries selected by the Bureau for the purpose of comparison. Thus the Lima plant, the most typical of all the former's refineries refines crude oil at a cost of 29.29¢ a barrel of 42 gallons. The average of the independents is 29.25¢ a barrel, almost identical difference.

The difference between the Standard and the independents in the cost of marketing their products is very slight. The independents, wherever they do operate, use the tank wagon method of delivery. In six cities the costs for the service to the independents were: 0.88¢, 1¢, 1.42¢, 1.50¢, 1.57¢, and 1.66¢ a gallon. The Standard paid the following in different cities: Chicago, 0.95¢ a gallon; St. Louis, 1.22¢; Richmond, 1.32¢; San Francisco, 1.89¢; Los Angeles, 1.30¢ and Denver 2.35¢. This reveals little advantage to the Trust. (c)

(a) Commissioner of Corporations, Petroleum Ind. II, p. 648

(b) Ibid, p. 653.

(c) Ibid, p. 660.

One cent a gallon represents the amount of profit obtained by the Standard by reason of conducting its system at lower cost than its rivals. Since, its total profits are three cents a gallon, two cents may be reckoned as attributable to ~~gains accruing from the~~ enhancement of prices. The power to raise prices was derived from predatory tactics and hence in the last analysis, this sum is a tribute to monopoly.

Before proceeding to a discussion of the facts, in regard to increase in prices, it is necessary to consider the sources of economy.

The most conspicuous saving affected by the Trust is in the field of transportation, a business, which can be conducted at its maximum advantage only by a monopoly. A concern handling the main bulk of the crude oil in a territory can lay large pipes -i.e. 6 or 8 inches in diameter- and keep them running at full capacity. An 8-inch pipe carries five times as much oil as a 4-inch pipe, the friction in the larger pipe is less than in the smaller, and the operating expenses are very little more. There is no doubt that the full economy of operation of pipe lines can be obtained only by monopoly.

A further saving results from the very nature of oil production. When a new field is discovered, the first wells are the most productive. In order to prevent the oil from being drained from their lands, men occupying ground adjacent to these, must drill also. Thus the output suddenly becomes very great. This requires speedy extension of pipe lines and the forwarding of large storage tanks or otherwise there will be

waste. Only a concern, having the proportions of a monopoly can afford to possess facilities for undertaking this work. (a)

Again, some of the minor products of petroleum are desired only in small quantities. The independents extract such proportion of these from the crude oil, as they can find a market for. But the Standard can sell all that it pays to take out of the crude.

Finally, the Standard Oil Company is able to push research work and to maintain laboratories for the discovery of new by-products, a surprisingly large number of which have been found.

The Trust, however, has shared, none of these advantages with the consumer in the form of lower prices, but it has instead been responsible for the high level of petroleum prices in recent years. As Herbert Knox Smith, ex-Commissioner of Corporations said in his report, "It was shown that, so far from having reduced prices by reason of its superior efficiency, the Standard Oil Company, at least during recent years, has greatly increased the margin between the price of crude oil and the price of its finished products in its domestic trade and that this increase has been the chief source of addition to its profits during the same period." (a)

This conclusion is substantiated by the marked increase between the price of Pennsylvania crude and the relative average price of its principal products from 1898 to 1903 of 1.9 cents a gallon--an increase that went hand in hand with a vast increase in the profits of the Standard Oil Company.

(a) Commissioner of Corporations, Report, Petroleum. II p. 614

The cost of production of the Standard Oil Company being one cent a gallon lower than that of the present independents, it is clear that it has an undeniable advantage, but it is equally evident that this is almost entirely due to exclusive possession by it of the means of transportation of crude oil. Such an advantage itself is an illegal one, because pipe lines used for the conveyance of oil have been common carriers since 1906 and the Standard in appropriating for itself the use of this quasi-public agency, is everyday violating the Interstate Commerce Act. The slight superiority of the Standard in other branches would entirely disappear, if its competitors had a fair opportunity to become strong and efficient. But the Trust having obtained the bulk of the trade by railway rebates, has maintained its dominating position by price discrimination, so that a competitor cannot enter a new town, where prices are fixed unduly high, without inviting a disastrous conflict. The oppressive influence, thus exercised, is nothing else but that unlawful restraint of trade, which it is the purpose of the Anti-Trust Act to condemn. To assist in applying the prohibitions of the Act, "restraint of Trade", should be more definitely defined so as to include, selling below cost in one community for the purpose of driving out competition, ^{and} factor's agreements; and other unfair methods used to intimidate competitors should be specifically described.

Dissolution, as a remedy for the evils of the trust, has practically failed, because it attempted to separate it into mythical companies, instead of into its natural branches.

The proper enforcement of the Interstate Commerce Act, requiring the Standard to charge reasonable rates for pipe line services, would be a step in the right direction. If necessary the business of transportation could be separated from that of refining and marketing. If The Standard was permitted to perform a dual function, and not being held to strict accountability, it proceeded to make a natural monopoly the basis of a predatory industrial combination.

CHAPTER III.

THE EFFICIENCY OF THE AMERICAN TOBACCO COMPANY.

Combination in the tobacco industry began in 1890 when the five leading manufacturers of cigarettes in the United States, Allen & Ginter, W. Duke, Sons & Co., W. S. Kimball & Co., Kinney Tobacco Company and Goodwin & Co., possessing 90% of the cigarette business, united to form the American Tobacco Company.^(a) This concern was the center of further consolidation in other branches. In 1898 the Continental Tobacco Company was organized as a merger of the important plug tobacco interests. This step served to bring the chief plants in the plug business under the domination of the American. The American and the Continental formed the American Snuff Company in 1900. In the meantime the old combination had been acquiring manufacturers of smoking tobacco, and had organized a cigar company as one of its subsidiaries. After reorganization of the various properties thus secured into first, the Consolidated Tobacco Company of 1901 and finally the new American Tobacco Company of 1904, the Tobacco combination had substantial monopoly over the domestic field in all branches except high-grade cigars. Moreover in 1901 it had joined the Imperial Tobacco Company of Great Britain for the purpose of exploiting the tobacco trade of the world, outside of the United States and England. For this purpose a new subsidiary, the British-American Tobacco Company was created.

(a) Bureau of Corporations, Tobacco Industry, I. p. 2

The successive combinations in the tobacco industry were promoted by one group of interests and represented merely the methods by which one concern extended its monopolistic control. Each of these consolidations contributed something to the restriction of competition. For the sake of convenience, the reasons prompting these various organizations will be considered as if each constituted a separate problem, that is from the viewpoint of the manufacturer entering the trust. Then in the discussion of method the same subject will be reviewed for an insight into the policy of the combination. The inquiry will be conducted to determine how much emphasis was placed on superior efficiency by the organizers themselves. The revalent ✓ testimony comes from the records of the genesis of the consolidations and their subsequent actions.

The original combination was probably inspired partly by economic motives, in spite of its enormous overcapitalization, a stock issue of \$25,000,000 on a basis of tangible property worth \$5,000,000. (a) Previous attempts at pooling had failed, and there had been a severe competitive struggle in the cigarette trade, which had occasioned heavy expenditures for advertising and premiums. The desire to eliminate this waste was a laudable one. It is very doubtful, however, whether the owners even seriously considered this, when actually contemplating combination. In fact recent evidence tends to prove that the trade war itself

(a) Bureau of corporations, Tobacco Industry, I p.2

was incited by the very men who afterwards became prominent in the American Tobacco Company, for the purpose of hastening its advent. (a) Certainly the moving spirits of the new enterprise looked forward expectantly to the monopoly power that would enable them to extort large profits. The same men realized that a great saving in the cost of production could be effected if all the largest plants could use the best cigarette machines, patents of which were held by one or two concerns. Here was a legitimate advantage but it was to be made the basis of monopoly. The financial manipulation that occupies so large a part of the history of the American Company shows that the obvious intent was carried out. Insofar as this element predominates, one must conclude that the trust movement in the tobacco industry is undesirable. This does not deny that the organization may not be relatively as efficient as the independents but it does mean that the economies actually realized have been small in proportion to those that are potentially possible and that its disadvantages so outweigh its advantages that competitive conditions are preferable to monopolistic

The formation of the Continental Tobacco Company, the plug combination, was impelled by the Plug Tobacco War, waged by the American company to secure control. The promotion of this company was made possible by the opportunity of floating a tremendous stock issue in 1898, which the organizers, the American Tobacco interests were not slow to

(a) U.S. vs. Am. Tob. Co. Brief, 221 U.S. 106.
also in Stevens, Industrial Combinations, etc p. 419

to sieze. The original capitalization of the Continental was no less than \$62,290,700 in stock, about equally divided between preferred and common.^(a) The common stock represented no real value, being given as a bonus. The presence of "watered" stock indicates that "financial" considerations were uppermost in the minds of the promoters, and not desire to secure efficiency. The purchase of the Liggett and Myers Company strengthens this opinion.

The new combination had scarcely been launched before formidable competition appeared. Had it been thoroughly efficient and fortified by superior ability, it would not have been disturbed by the prospect. Yet no sooner had Thomas F. Ryan, P.A.B. Widener, A.N. Brady, W.C. Whitney and Thomas Dolan, formed the Union Tobacco Company and obtained an option on Liggett & Myers than the Continental interests became alarmed at the threatened loss of control and bought out its competitors at a high price. The deal was made by an increase in the capitalization of the Continental by \$35,000,000. At the same time the financial interests represented by the men above mentioned, took the places of some of the old manufacturers, Ginter, Kimball and Emery, (who were opposed to the American's campaign of extension) in the councils of the American Tobacco Company. This change in personnel was followed by a policy of financial manipulation.^(b)

The American Snuff and the American Cigar Companies organized in 1900, present the same objectionable features

(a) Bureau of Corporations, Tobacco Industry, part I, p. 100
(b) Ibid pp. 73-76, 100

that characterized the earlier combinations, namely the facilitation of centralization of control by the opportunity that existed for the sale of inflated securities.

The formation of new companies accomplished the object of their promoters. The business of the American Tobacco Company has been widely increased and extended until in 1906, it controlled 82 per cent of the total output of plug tobacco, 71 per cent of the smoking tobacco, 81 per cent of the fine cut, and 96 per cent of the snuff. At the same time it practically maintained its original proportion of the cigarette business, (82.3 per cent in 1906) and increased its production of cigars from 4 per cent of the total in 1899 to 14.7 per cent in 1906. It consumed 400,000,000 pounds of leaf tobacco in 1906. (a)

Whether this dominion over the tobacco industry is the result of inherent ability to manufacture brands at lowest cost or whether it is the outcome of practices, designed to monopolize trade and to restrain normal competition, is a question of the methods of the American Tobacco Company. Much pertaining to this subject has already been revealed in connection with the discussion of the causes and the intent of the various combinations. The acts that proceeded from the original purpose may be summed up under five heads, (1) Trade Wars, (2) Company-Organization, (3) Acquisition of Competitors, (4) Bogus Independent Companies, and (5) Factor's Agreements.

(a) Commissioner of Corporations, Tobacco Ind. I, p. 33, 34, 36.

The American Tobacco Company has conducted three trade wars for the control of different branches of the business. The first of these, the so-called Plug Tobacco War commencing in 1894, was the most important.

The combination of the cigarette manufacturers was in 1890 was not immediately followed by consolidation in other lines. In fact, there was no tendency in that direction. The American, however, from its inception, had begun to build up a plug business, but its efforts had fallen far short of the desired goal, which was monopolistic control. Finally when the futility of the attempt to secure by ordinary purchase the dominion, sought for, became apparent; it instituted a trade war. It began by selling its famous "fighting" brand, "Battle Axe" at 13 cents a pound and out of this it paid the revenue tax of 6 cents a pound. The net price was below the cost of production. For several years it carried on the plug campaign at an annual loss of at least a million dollars, which was paid out of the profits of its cigarette business. In 1898 the competitive warfare ended in the leading plug manufacturers entering a combination, under its direction. (a)

Similarly, the Snuff War was responsible for the Snuff Combination of 1900 and the conflict threatened by the American's invasion of England, caused the largest British Company to become party to an agreement with it.

Thus the American Tobacco Company used the monopoly in the Cigarette business as a vantage ground for the purpose

(a) Commissioner, Corporations, Tobacco Ind. I, p.46

of commencing trade conflicts, designed to injure its competitors and to force them into combination with it. The present position of the American is proof of the success with which its work was attended.

The very nature of the numerous organizations is further evidence of the manner in which a few men obtained the control of the tobacco industry.

For example, the Consolidated Tobacco Company was formed in July, 1901, with a capitalization of \$40,000,000. At that time, the common-stockholders of the American and the Continental (the plug tobacco) companies received an offer of 4 per cent Consolidated bonds for their securities. The basis of exchange was to be \$200 in bonds for each \$100 of American common stock, and \$100 in bonds for \$100 Continental common. The offer was universally accepted.

This transaction was then regarded as very favorable to the common stockholders. The Continental stock had never paid a dividend and was quoted at about \$30. The former holders of this stock were now entitled to 4% on par. The stockholders of the American, who had been receiving 6% in dividends were now guaranteed to 8% interest on the same investment. The whole operation, nevertheless, turned out to be enormously profitable to the men behind the Consolidated Company, because the profits accruing to the common-stock holders soon greatly increased. The financial interests, who were in position to foresee coming events, received the entire benefit. (a) the

Again, the formation of the new American Tobacco Company in 1904 to succeed the Consolidated was undertaken primarily to strengthen the Combination's legal position, then imperiled by the Northern Securities Case. It also served to give the holders of \$40,000,000 of common-stock sole voting power and consequently complete control of a corporation, capitalized at \$316,000,000. (a)

Both of these financial operations were accomplished by enormous inflation of securities, the over-valuation of good will alone amounting to \$110,000,000. (b)

Company-organization, therefore, was used as a method to centralize control into the hands of the men who were instrumental in building up monopoly in the tobacco business. Financial manipulation certainly cannot be reconciled with any claim of efficiency.

A third method, most frequently employed by the Combination was to buy out competing plants, not for the purpose of utilizing them, but to destroy their competition. The most important concern acquired for this reason was the Liggett and Myers Company, (see P. 58) This practice has been facilitated by stock-purchase, that is, the purchase of a majority of the securities of the rival company and not of its entire property. In this way the American Tobacco Company has acquired 250 plants, some of which have been continued as subsidiaries, and the rest dismantled. (c)

(a) Commissioner, Corporations - Tobacco Ind. I, p. 12

(b) Ibid II., p. 131. (c) Ibid. I, p. 41

This was a continuous process, as new independents were constantly springing up.

The Combination's policy of buying out competitors has resulted in its obtaining the most improved machines which has given it a real advantage.

The fourth method employed by the Combination to restrict competition was the maintenance of bogus independent companies. In order to take the advantage of the sentiment against "trusts", the American Tobacco Company has openly advertised concerns really under its domination as "independent". The managers of these "fake" companies represented to the trade that their goods were "not made by a trust." Some of them even hired union men and thereby secured custom which the American Company, because of its known hostility to organized labor, could not get. (u)

Finally, the Combination has imposed upon numbers of persons, stipulations of one kind and another, having for their general object the restriction of competition. Some of these took the form of factors' agreements, whereby dealers were required to purchase exclusively of the Combination. In other cases manufacturers were compelled to bind themselves not to compete in the future.

To review the facts pointing to the evident intention of certain men to acquire dominion in this field, not for the purpose of eliminating competitive waste, but to control prices; and to consider the methods which they pursued in the actual accomplishment of this purpose, is to be convinced that superior efficiency does not account for the presence of this gigantic industrial combination.

The profits of the American Tobacco Company have been exorbitant. The average return on its investment in all branches has in no year been less than 37.6 per cent, while it has frequently exceeded 60 per cent. On the other hand, the independents earn only 15.9 per cent, on the average according to the estimate of the Bureau of Corporations. (a) Since the independents do not sell at a lower price than the Combination, this would seem to indicate that the latter was far more efficient than its smaller rivals. While the American no doubt does possess an advantage, because of the immense size of its factories and its control of the best machines, its superiority is by no means as great as is implied by this comparison.

In the first place, an analysis of the Combination's rate of profits, shows that it is low on branches, where competition is active, and high where it is repressed. Thus the cigarette group, where monopoly is almost complete, earned 98 per cent on its total investment and 220 per cent on its tangible assets in 1908. The American Snuff Company, which controls 96 per cent of the snuff business, reported a return of 20.1 per cent on its total investment and 39.3 per cent on its tangible assets in the same year. Now contrast these profits with those of the American Cigar Company, which has but 14 per cent of the cigar business. Its earnings in 1908 were but 4 per cent of its tangible value. In 1908 it was operated at a loss of 17.1 per cent of its total investment (b)

(a) Commissioner, Corporations Tobacco Ind. II., p.332

(b) Ibid, pp.177,268,289.

The conclusion is unavoidable that the profits of the Combination would be even greater in the entire absence of competition.

The independents now in existence are not fair representatives of the kind of concerns, produced by competition conditions, because there has been a continual defection of the most efficient to the ranks of the trust. Therefore the desirability of the Combination is not finally established by the ability to surpass them in profits or productive costs.

But thirdly and most important is the fact that the sources of the huge profits of the Combination do not reflect credit upon it. It is certainly possible that other influences besides efficiency may have contributed to its profits.

First, for several years its gains were swelled by the full amount of the reduction of the Spanish War-tax on tobacco. In 1898 the internal revenue tax on tobacco had been raised from 6 to 12 cents a pound. The retail price of tobacco products was adjusted, so that the tax was shifted to the consumer. But in 1902 the tax was reduced to its old level, with no corresponding decrease in the price. The action of competition would have lowered prices automatically, but under monopolistic control of the industry the Combination in effect exercised the taxing power. (a)

(a) Commissioner, Corporations Tobacco Ind. II. p.245

Secondly The mere ownership of the popular brands of tobacco yields a return to the American Tobacco Company altogether out of proportion to the capital invested. The fact that this advantage was acquired by unfair methods and was ^{not} the result of normal development makes its possession no source of credit to the Combination.

3. The Trust, has further increased its profits by paying less than the union scale of wages to its employees. Because of the wide distribution of its plants, it has been able to ~~make this reduction in its labor cost.~~ Thus it transferred work from its St. Louis to its South Carolina plants in order to avail itself of cheap child labor in the South.

4. The acquisition of the patents on the best machines used in the manufacture of cigarettes and other products, has given the Combination another source of profits, which cannot be attributed to efficiency, because it is in the nature of a special privilege.

Thus profits, huge in the aggregate, have accrued to the Combination by reason of the possession of popular brands, of exclusive patent rights, and because of the reduction of the War-Tax, and its ability to drive a hard bargain with labor. These influences combined have caused a tremendous appreciation in the market quotations of its securities, amounting in the case of the common-stock of the American Tobacco Company to nearly 1,000 per cent in 22 years. (a)

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"These enormous profits resulting from the inflation of the securities and the dividends paid thereon rest", says Herbert Knox Smith in his report on the Tobacco Industry, "in their ultimate analysis, upon the monopolistic advantage obtained in this industry through concentration of control!" (a)

The "monopolistic advantage" that is referred to by the former Commissioner is synonymous with the advantage that comes from that "restraint of trade", within the meaning of the Sherman law. It is derived from "the power to control and at will to enhance prices"- a power that in turn arises from the limitation of the unhampered right to engage in trade and commerce. Such being the elements of strength of the American Tobacco Company, it is evident that its continued existence is so inseparably connected with acts that are repugnant to the spirit of free institutions, that it is the plain duty of the courts to dissolve it and to restore competition.

How this is to be effectively accomplished is a difficult problem, especially so in the light of the apparent failure of the dissolution proceedings, recently instituted. Prohibition of stock-ownership of subsidiaries, by the parent company, has much to be recommended as a remedy. The American Tobacco Company was built up like a house of cards, without any solid basis of efficiency and it may be expected to tumble down when its real nature is once comprehended.

CHAPTER IV.

THE EFFICIENCY OF THE UNITED STATES STEEL CORPORATION.

Chapter IV. The United States Steel Corporation
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The pools in the steel industry had failed to prevent wide fluctuations in prices and severe competition among the manufacturers. The Carnegie Steel Company had taken on some of the features of a combination, but in general it may be said that competition was the distinguishing characteristic of the trade prior to 1898. (a)

By 1900 the consolidation movement was far advanced. Three important combinations were engaged in the manufacture of crude and semi-finished steel. The Morgan interests had promoted the Federal Steel Company, the Moore group was responsible for the formation of the National Steel Company and the Carnegie Company had long been in the field.

Amalgamations also occurred among concerns manufacturing the more advanced products. The American Steel and Wire Company, the National Tube Company, the American Bridge Company, the American Sheet Steel Company, the American Tin Plate Company and the American Steel Hoop Company were all organized during 1899 or the early part of 1900. Of these, the three latter were Moore concerns and depended upon the National Steel Company for their supply of crude steel. The National Tube and the American Bridge Companies belonged to the Morgan group and were consequently affiliated with the Federal Steel Company. (b)

In 1901, the United States Steel Corporation was formed as a consolidation of the previous consolidations.

(a) Commissioner, Corporations on Steel Ind. I, p. 2, 75.
(b) Ibid, pp. 3, 9, 10.

Whether this tendency toward concentration that culminated in the formation of the Steel Corporation proceeded from a desire on the part of the principals to secure the benefits of more efficient production or whether they were influenced by other and less praiseworthy motives is a question to be answered by an analysis of the controlling causes.

The Bureau of Corporations assigns three reasons to account for the rapid spread of combination in the Steel industry. These were: (a)

1. The restriction of competition through combination.
2. Integration.
3. The creation of a large amount of inflated securities.

These were the predominating forces behind the earlier combinations, and they were repeated on a vaster and more comprehensive scale in the organization of the Corporation.

The formation of quasi-monopolistic concerns in various branches of the steel trade did not settle the industrial situation. A competitive war of gigantic proportions soon threatened to break out between these larger units. This alarming condition was brought about by the tendency of the "secondary" companies (i.e. those engaged in the further elaboration of crude or semi-finished steel) to secure greater integration and to make themselves independent of the "primary" concerns, by purchasing ore reserves and blast furnaces. Thus the best customers of the Carnegie

(a) Commissioner, Corporations on Steel Industry I, P 4.

(b) Ibid, p. 7.

and Federal Steel Companies prepared to become their chief rivals. The Carnegie Company promptly retaliated by entering into the production of finished steel goods. It gave an indication of its belligerent attitude by announcing its intention of immediately building a tube mill on Lake Erie.

Aside from the wasteful duplication of plant and equipment, which this step would have entailed, there were considerations which would have caused a struggle at this time to affect disastrously the recently-promoted combinations. The new-comers were heavily over-capitalized and in no position to stand a fight. The value of their securities was still uncertain, being wholly dependent on the maintenance of undisturbed prosperity. This applied particularly to the Moore and Morgan Concerns.

The Carnegie interests, on the other hand, had no entangling stock-market alliances. They had devoted their whole attention to the industrial side of the business and had succeeded in building up a plant of remarkable efficiency. Thus they were abundantly fortified to meet any emergency. (a)

The only way to avert the impending competition was to buy out Mr. Carnegie. He controlled the situation, so he could be expected to name his own price. The amount of cash required to effect this would have been too great for even Moore and Morgan to raise. But, fortunately for these latter interests the demand for trust securities had not yet abated. Because of this, they were enabled to float

(a) Meade, Trust Finance pp. 206-211.

the Steel Corporation and to pay Carnegie with its bonds.

The extent to which the financial managers availed themselves of the opportunity to create and to dispose of a great amount of inflated stock, is shown by the immense over-capitalization of the consolidation that followed.

The properties of the Corporation were valued at \$1,402,846,817 by its own appraisers at its inception. The chief securities issued and their par values were: (a) preferred stock \$510,205,743, common stock \$508,227,394, and bonds \$303,450,000. The Bureau of Corporations, after an extensive investigation estimated that the true valuation of the Steel Corporation's physical property was about \$700,000,000. Thus the excess or "amount of "water" was \$700,000,000. The main point of difference between the Bureau and the Corporation came in regard to the proper value of the ore leases. The facts presented by the former tend to prove that the valuation of a \$100 a ton, placed by the Corporation upon its estimated tonnage of 700,000,000, was absurdly high and that 13 cents a ton, or a total of \$100,000,000 was entirely sufficient to cover their actual worth, in 1901. (b)

Very convincing evidence of excessive capitalization is afforded by the enormous payment the Steel Corporation allowed its underwriting syndicate. It appears that a commission equivalent to the huge sum of \$62,500,000 in cash went to these men for their services. (c)

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- (a) Commissioner, Corporations on "Steel Ind. I, pl4.
(b) Ibid, p. 35.
(c) Ibid, p. 38.

The immediate causes of this great consolidation do not point to superior efficiency. If the Carnegie Company had carried out its plans and had succeeded in extending its operations until they covered every branch of the steel trade, then monopolistic position could be traced to compelling merit alone. In other words had competition been allowed to take its course, although it would have worked much hardship, it would have inevitably eliminated the unfit and probably it would have resulted eventually in the domination of some concern like the Carnegie Company. The combination, that was actually formed, was handicapped at the outset by the possession of plants, useless for the purposes of trade. It had been undertaken for the purpose of preserving the financial standing of allied Moore and Morgan companies, and the realization of this object was made possible by the opportunity to dispose of "watered" stock to the public. Neither of these gave the Combination any advantage in productive costs.

The significant feature of the later development of the Steel Corporation has been the constant augmentation of its ore reserves. The acquisition of the Tennessee Coal, Iron and Railroad Company in 1907 increased its holdings of coal by a probable 1,300,000,000 tons and of iron ore by 697,350,000 tons.^(a) By the lease of the most valuable of the ore properties of the Great Northern Railway System, the Corporation acquired control of not less than 500,000,000 tons of high grade iron ore. Although it has since cancelled

(a) Commissioner, Corporations, on Steel Ind. I., p. 257

this contract, the extreme liberality of the terms, is conclusive evidence as to a desire on its part to obtain, even at high cost, the control of this limited natural resource.

Besides the increase in the plant capacity of the Corporation due to numerous acquisitions, it has made further additions by new construction, of which the Gary plant is the most important.

In spite of these extensions and an absolute increase in its production, the Corporation has failed to maintain its original position. Its proportion of the entire output of ingots and castings fell from 66.3 per cent in 1901 to 54.7 per cent in 1910; of finished rolled products from 50.1 per cent in 1901 to 48.1 per cent in 1910; and of wire nails from 65.8 per cent of the total in 1901 to 55.4 per cent in 1910. Only in the production of ore and blast furnace products has it held its own. (a)

As pointed out by Mr. Brandeis, this was not due to lack of facilities. In fact, a large number of the plants of the Corporation were idle in 1910. Thus with a capacity of 16,240,700 tons for semifinished steel products, it manufactured only 11,831,398 tons in 1910, with a pig iron capacity of 18,039,000 tons it produced but 14,179,369 tons and with a rolled steel capacity of 14,547,336 tons it produced only 10,733,955 tons. Thus in 1910 fully one-fourth of the capacity was unused, in 1901 less than four per cent. Although it increased ~~the production of~~ the products of its blast furnace 72.58 per cent, steel ingots 60.13 per cent and rolled steel 44.54 per cent, it thus failed

(a) Commissioner, Corporations Steel Ind. I. II., p 360-365.

to keep pace ~~either~~ with the growth of the industry or its own plant capacity. (a)

However, in the face of an extraordinary demand for iron and steel products, prices have been maintained at a high level, so that it is probable that the Corporation has preferred to earn a high rate of profits on a business somewhat less than its capacity would warrant, rather than to drive out its competitors by cutting prices to a point that would make its total profits less on a much larger volume of sales.

#3. Profits.

The profits of the Steel Corporation have been large, if measured by the actual investment, amounting in 9 3/4 years (1901-1910) to the total of \$1,100,350,857 or to an annual average of 12 per cent on the tangible assets. They were distributed as follows: (b)

YEAR (end. Dec. 31)	Total Investment : Earnings (adjusted)	
	in tangible assets: AMOUNT	PER CENT
1901 (9 mos.)	\$ 698,869,756.	\$ 77,741,231. 14.8
1902	763,574,919.	121,502,344. 15.9
1903	806,615,979.	94,156,958. 11.7
1904	818,238,143.	62,491,950. 7.6
1905	874,840,920.	112,830,835. 12.9
1906	947,397,884.	143,393,707. 15.1
1907	1,078,763,602.	155,416,873. 14.4
1908	1,090,425,487.	84,793,296. 7.8
1909	1,146,875,993.	120,807,579. 10.5
1910	1,186,982,038.	127,216,084. 10.7

(a) Commissioner of Corporations, on Steel Ind. I., p 269-71
 (b) Ibid, p. 342.

The elements of strength of the Steel Corporation are revealed by the ultimate sources of these profits . There are two ways in which an excess of profit, over that normally realized in competitive trades, has originated. First, the possession of certain limited facilities or means of production has enabled the Corporation to surpass its rivals in reducing costs and thereby to add the difference to its ordinary profits. Secondly, the ability to exert such a prepondering influence on prices that natural competitive forces are checked, has afforded the Corporation as well as competitors existing "under its wing" a further gain.

"In so far as the Steel Corporation enjoys monopolistic power," said Herbert Knox Smith in his letter to the President, "it lies chiefly in these two factors." He referred to the large profits on (1) ore and (2) railroad transportation. (a)

The Corporation earned 10 per cent on its whole ore holding. The significance of this is made clear by the same authority. "Thus, while earning 10 per cent, the Steel Corporation can also carry a vast ore reserve far in excess of its present requirements and so large as to have distinctly monopolistic features, can exercise on the entire industry the undefined but real power that such concentration of the ultimate resource must give, and can assure itself of the certain increment of value that will inevitably occur with the diminishing of our available

ore supply so long as the existing conditions of concentration are allowed to continue." (a)

The Corporation has the field of railroad transportation to itself, owning the two most important ore roads in the Lake Superior region, the Duluth and Iron Range and the Duluth, Missabe and Northern. The rates on ore on these lines were, before their reduction in 1911, indeed unreasonable, thus not only yielding a big revenue to the Steel Corporation, but imposing a burden on such of its competitors as were compelled to use their services. The operating expenses of both these roads are remarkably low, because of the declining cost of ore transportation. Thus the ratio of operating expenses to gross earnings for the Duluth, Missabe and Northern was below 30 per cent, as against an average for all the railroads in the country of 66 per cent, while that for the Duluth and Iron Range in 1910 was only 36.5 per cent. Notwithstanding this, freight rates were maintained at the same level for 10 years, so that the earnings of these roads have been immense, ranging from 100 to 150 per cent on the capital stock. (a)

The possession of the most valuable of these two basic agencies of production may be expected to give the Steel Corporation a pronounced advantage over its rivals in the cost of production.

(a) Commissioner, Corp., On Steel Ind. II (Preliminary) p. xvii
(b) Commissioner, Corp., Report on Steel Ind. I, pp. 374-375.

In comparing the costs of the Steel Corporation with those of the Independents, only the bare costs, obtained by subtracting the inter-company profits from the book costs, are used. In doing this, it is to be remembered that the investment of the highly integrated concern, is much larger than that of the smaller non-integrated companies and that consequently a larger margin between the cost of production and the selling price is required by the Steel Corporation to enable it to earn the same return on the investment as its competitors.

The Bureau of Corporations makes no direct comparison between the cost of production of the Steel Corporation and that of the independents. It combined the cost figures of the four largest steel companies, the Lackawanna, Republic, Jones and Laughlin and the Steel Corporation for the period, 1902-1906, for the purpose of contrasting them with corresponding figures for the smaller concerns. In 1910, however, the Steel Corporation made public its own costs, thereby furnishing a basis of comparison

The Steel Corporation produced basic pig iron at a furnace cost of \$10.09 a ton, the four largest companies including itself, at \$11.71 a ton, and the smaller at \$13.59 a ton. The Corporation turned out Bessemer pig iron at a furnace cost of \$1.40 less than the largest companies, and \$4.41 less than the smaller companies. For Bessemer billet and ingots the advantage of the Combination was \$1.77 and \$6.38 a ton respectively. At the same time it cost it \$16.67 a ton to

produce heavy Bessemer rails in 1910, while in the period 1902-1906 when expenses were lower, the cost of the same product to the largest companies was \$18.80 a ton. (a)

The Steel Corporation has thus demonstrated its superiority over the field and it is established that it could, if it desired, wage a competitive warfare that would result in the annihilation of most of its rivals.

However, there is no real competition between the Corporation and the independents. Prices are maintained by tacit understandings called "gentlemen's agreements" by which competition as to prices has been greatly modified if not entirely prevented. Thus the price of steel rails has been fixed at \$28 a ton since the formation of the Combination.

#4 Conclusion.

The concentration of the control of indispensable^a natural resources, unless prevented, will give combinations now in the field practically complete monopolistic power. Today it would be exceedingly difficult for a new concern to establish itself, but it is still possible. A check on the further centralization of coal and ore mines is a necessity.

Segregation of the industrial from the transportation interests of the Steel Corporation would be consistent with this policy.

(a) Commissioner, Corporations, on Steel Ind. Preliminary to II.

CHAPTER V.

THE EFFICIENCY OF THE INTERNATIONAL HARVESTER COMPANY.

Chapter V, The International Harvester Company.
#1

Monopolistic control over the harvesting machine business was established by the formation of the International Harvester Company in 1902, as a result of the consolidation of the five leading manufacturers: the McCormick Harvesting Machine Company, the Deering Harvester Company, the Warder, Bushnell and Glessner Company (Champion), the Plano Manufacturing Company, and the Milwaukee Harvesting Company. (a)

The companies in the merger together produced 90.9 per cent of the country's binders, 82.5 per cent of the per mowers and 67.8 per cent of the rakes. The percentage of of domestic sales controlled was 96.3 and 91.0 per cent of binders and mowers respectively. This was practically the degree of control possessed by the Combination at the outset. (b)

A study of the origin, growth and methods of the Company will determine whether this merger increased the average efficiency of the several companies, i.e. whether the mere fact of combination created economies or got rid of ~~any~~ wasteful features, or had the opposite effect.

There are three motives commonly advanced to account for the organization of trusts. These are, desire (1) to eliminate competitive losses, (2) to obtain the economies of combination, and (3) to issue inflated securities. Insofar as the first two predominate, efficient production usually follows.

(a) Comm'ers Corp. Report International Harvester Co. p.67
(b) Ibid, pp.180-182

The Combination terminated a long period of keen competition among the manufacturers of harvesting machines, a competition which was described by Cyrus B. McCormick as "fierce" and as characterized by "unbusinesslike methods!" The other owners also testified that there was wasteful expenditure for high-salaried salesmen and advertising. With no agreement as to prices, frequent departures from listed prices (rebates and concessions) were freely made to get trade. John J. Glessner stated that before 1902 "it was a bitter fight between everybody to get business and get the better of your competitor." He told further of the conditions that then existed, "We did everything that we could possibly do that would prevent our neighbor from making a sale. We had a large number of salesmen out on salary, and these men of course were instructed that they had to produce results. ~~###~~ they would do anything to make a sale." Whenever one man would take an order, representatives of the other companies would follow him and try to persuade the purchaser to cancel it. William H. Jones referred to this as "busting orders." C.S. Funk testified that conditions were "more like guerilla warfare than anything else," and he continues to say, "I was sales manager of the Champion in later years, I know that my efforts were devoted as much to tearing down the other fellow's organization as building up my own and I frequently spent several times over the price of a machine trying to make my own machine stick and to knock out the other fellows!" (a)

A review of this testimony points conclusively to the fact that combination was the result, primarily, of a desire to restrict competition that involved waste of much time and effort.

The competition that existed prior to 1902 while severe, was not destructive. The McCormick Company earned 11.7 per cent, the Deering 17.9 per cent and the Milwaukee 11 per cent, the year before the merger. Thus competition had not destroyed profits. (a)

A second cause of the Combination was the desire to secure the economies of monopolistic production, which while not so important, still had its influence. These are four in number:

1. Large Scale Production, by distributing the fixed charges over a greater number of units, reduces the cost per machine.

2. Marketing costs are less under monopolistic production, because a concern having a full line can supply the needs of the trade at less expense for deliveries than a number of small companies.

3. The seasonal demand for agricultural implements requires that a large amount of expensive implements be carried in stock, which in turn calls for a large investment

4. The method of granting credit terms to farmers now in vogue necessitates heavy financial backing and therefore large industrial establishments.

All of these advantages could be secured to a the greatest degree by one organization only.

Financial manipulation had no place in the formation of the Combination. The old interests remained in the new Company and the stock was closely held. Moreover the vigor of the trust movement was by 1902 quite spent so that the inflation of securities had ceased to be profitable. Absence of over-capitalization is noteworthy.

The International Harvester Company was capitalized at \$120,000,000; \$60,000,000 in "plant" stock to cover the investment in plant and equipment, and \$60,000,000 in "cash" stock for the notes of the manufacturers. The property for which this "plant" stock was exchanged, was appraised by the agents of the Corporation at \$67,000,000, thus giving an apparent ~~an apparent~~ surplus of \$7,000,000. That this was afterwards written off is proof that it was wholly fictitious. The Bureau of Corporations valued the same property at \$49,117,356, estimating that the ore lands leased by the Deering Company alone were overvalued by \$7,715,811. The Harvester Company's appraisal had been made a week after George W. Perkins had testified that the ore leases of the Steel Corporation were worth \$1 a ton. Since he was promoting the International, ~~the~~ Company was in no position to deny that the value of 42.5 and 35 cents a ton was excessive. (a)

The Harvester Company possessed some real good will in connection with its physical property, worth at least \$20,000,000, so that everything considered, it was very conservatively capitalized.

The second test of efficiency is found in the growth of the Combination. It is to be expected that if the Harvester Company really surpassed its competitors in merit, it would ~~also~~ surpass them in increasing its sales and thereby obtain a larger percentage of the total business. The Harvester Company shows a slight tendency in the opposite direction. Thus its percentage of the total production of binders declined from 90.9 per cent to 87 per cent from 1902 to 1911, of mowers from 82.5 to 76.6 per cent and its proportion of the domestic sales of binders decreased from 96.3 to 87.2 per cent and of mowers from 91.0 to 74.6 per cent. (a)

However, this loss was more than offset by the gains in foreign trade and in the "new lines".

In 1909, the Harvester Company produced 13 per cent of the country's farm wagons, although it had entered that field just four years before. In the same year it also controlled 25.9 per cent of the output of disk harrows, and 49.1 per cent of spring tooth harrows, both new lines. These extensions brought on retaliatory measures from the concerns whose territory was thus invaded, with the result that the Combination lost ground in the old lines as above indicated.

Thus the Harvester Company's claim of efficiency is not substantially affected by these changes.

(a) Comm'er, Corp. Report, International Harvester Co., p269

(b) Ibid, p 187.

The existence of unfair competitive methods, tends to qualify a combination's assertions as to its efficiency. It is important, therefore, to note to what extent they characterized the policy of the Harvester Company.

The agents of the Bureau of Corporations visited 800 retail dealers in 600 towns, scattered through 27 states, in order to determine how widely objectionable practices, on the part of the Combination, prevailed. While ordinarily the relations between these dealers and the Company, with which they had business dealings, would be friendly, 50 per cent actually criticised its methods adversely and complained of the following tactics of the Combination: (a)

1. Pretended competition in earlier years. Shortly after the merger, the new Trust acquired the Osborne Company, but for some time concealed the fact and maintained it as an independent concern. While apparently done at the request of the latter company, the Combination can not be altogether cleared of the intent to injure its competitors in this fashion.

2. Full line forcing. This was the attempt to virtually compell dealers, handling some of its goods, to carry its lines exclusively. The contracts, having this purpose, proved so unpopular that they were speedily abandoned.

3. Undue proportion of dealers. The desirable implement stores in any town seldom exceeds three. It is a practice of the Harvester Company to distribute its brands of har-

vesting machines in such a way that each dealer handles but one, either the McCormick, Champion or Deering. Thus the Combination secures the most active representation of its goods and limits the outlet for its competitors.

4. Suggested price lists. The old McCormick Company habitually stipulated the prices at which its products were to be sold to farmers. The Harvester Company for a time continued the same policy, but subsequently gave it up.

5. Price discrimination. This is so occasional as hardly to warrant mention.

6. Misrepresentation of competitors by salesmen. This seems to have been due to the individuals themselves, as the Company appears to have given them no authority, implied or otherwise to indulge in it.

Three of these improprieties were partly the result of faulty organization of the Combination in its earlier years, by which divisions corresponding to the old companies were kept up, and they have since been done away with. Only the third objection, the obtaining an undue proportion of dealers, has any present importance in handicapping competitors,

On the whole, these practices lack the oppressive nature of the price discrimination of the Standard Oil Company or the trade wars of the American Tobacco Company, and consequently they cannot be said to constitute a very formidable indictment against the Harvester Company.

The earnings of the Trust have been only moderate for the entire period of its existence, -the average rate on its investment being 8.47 per cent for the nine years 1902-1911, according to the Bureau of Corporations. However within the last three years the average return has been considerably higher, -12.5 per cent. The significance of this showing lies in the sources of profits. (a)

Thus while earning an average of 12.5 per cent on its whole business, the Combination has used its monopolistic position in the "old lines" to exact a higher rate on harvesting machines and at the same time to cut its prices and hence to lower its profits on those branches in which it is striving to gain a foothold. Thus in 1911 its trading profits on manure spreaders, a new line, were 7.18 per cent, but on grain binders, an old line, 19.54 per cent. (b)

Moreover, the increase in the rate of profits in recent years, has been due mainly to an increase in prices and not to added efficiency. The established reputation of its harvesting machines, enables it to charge more for its old lines than its rivals can obtain for their machines. In 1908 it arbitrarily raised the prices of grain binders \$7.50 to \$10.00. (according to their size) (c)

(a) Comm'er, Corp't'ns, International Harvester Co., p 238.

(b) Ibid, p.242

(c) Ibid, p.248.

It cannot be charged against the Harvester Company, however, that it has discriminated against the American farmer, by selling at lower prices abroad than at home. In fact, the reverse is true, as is shown by the following comparison of foreign and domestic prices: (a)

ITEM	DOMESTIC	FOREIGN
Grain binders, 5-, 6-, 7-foot	\$102.64	\$125.27
Reapers	53.83	68.28
Mowers	37.11	41.09
Rakes	18.17	21.71
Twine	.074	.083

The factory cost of the products of the Harvester Company affords conclusive evidence as to its efficiency, compared with the independents. The average cost of the binders of the Combination was computed by the Bureau to be \$56.32, and the corresponding average cost for all the large independents was \$76.18. The cost of production of mowers was \$20.89, on the average, for the Trust and \$24.98 for the independents. The Harvester Company manufactured rakes at an average expense of \$2.10 less than its competitors and it had an advantage almost as great in other branches of production. (b)

The superiority of the International Harvester Company over the independents is therefore marked and considerable. Whatever the moving cause of combination was, efficiency has certainly been the actual result.

(a) Comm'er, Corp't'ns, International Harvester Co. P. 244.

(b) Ibid, pp. 261, 264.

Finally this distinct advantage over competitors, enjoyed by the International Harvester Company, is due chiefly, according to the Bureau of Corporations to ~~the~~ large scale production. (a) This advantage was used, however to increase the trade in new lines, rather than to reduce prices.

#4

Clearly, efficiency of production, so marked as this, should be encouraged, if the consumer could be allowed to participate in the benefits, thus created. The Company cannot be relied on to share its profits with the public voluntarily, and the maintenance of plants of less efficiency, to act as price-regulators is of doubtful expediency, besides involving needless waste. The regulation of prices by Governmental action is yet untried, but in this case at least it would seem to have a reasonable assurance of success.

(a) Comm'er, Corp't'ns, International Harvester Co., p.288-9

Chapter VI. Conclusion.

It is evident from the preceeding discussion that it is impossible to formulate any satisfactory conclusion in regard to the efficiency of trusts or industrial combinations in general. Each presents its own problem, which must be studied in the light of its particular aims, methods and results.

The four combinations, which we have just examined have each demonstrated their inherent ability to manufacture goods at a lower cost per unit than the independents in their respective lines.

However, in the last analysis, the source of efficiency is really the important consideration and not the fact that trusts are comparatively efficient as units.

It is apparent that most combinations that endure for any length of time are based on some special advantage, which lends itself especially to monopolistic production. Thus the Standard Oil Company derived its main strength from the control of transportation facilities, the Steel Corporation from the ownership of ore leases and ore railroads, and the American Tobacco Company from the control of brands and patented processes. The International Harvester Company alone succeeded by reason of the unaided advantage of large scale production.

It is further clear that monopoly in one field of production may easily be made a vantage ground for extension of monopolistic control into kindred lines.

Finally, it must be recognized that the possession of any degree of monopolistic power by a private corporation invariably leads to the strengthening and perpetuation of the monopolistic position and to the exclusion of competitors from the market by unfair means. Hence, regulation, suited to the needs of the various kinds of combinations, is imperatively demanded.

APPENDIX A

POOLING AGREEMENTS.

Memorandum of agreement, entered into August 2, 1887, by and between the North Chicago Rolling Mill Company, the Cambria Iron Company, the Pennsylvania Steel Company, the Union Steel Company, the Lackawanna Steel Company, the Joliet Steel Company, the Western Steel Company, the Cleveland Rolling Mill Company, Carnegie, Phipps & Co. LTD., the Bethlehem Iron Company, the Scranton Steel Company, the Troy Steel and Iron Co., the Worcester Steel Works and the Springfield Steel company.

We, the before-named companies and corporations, manufacturers of steel rails, hereby mutually agree one with the other, that we will restrict our sales and the product of steel rails of 50 pounds to the yard and upward, applying to orders taken by us or from our respective works during the year 1888 as hereinafter allotted and limited, and we respectively bind ourselves not to sell in excess of our current allotments, without first obtaining the consent of the board of control thereto, that is to say:

It is agreed, there shall now be made an allotment of 800,000 tons of rails, which shall be divided and apportioned to and among the several parties hereto to be sold by them during the year 1888, upon the following basis of percentages, to wit: North Chicago Rolling Mill Co., 12.05%, Pennsylvania Steel Co. 9.8%, Bethlehem ~~Steel~~ Iron Co. 9.0%, Carnegie Bros. & Co., Ltd. and Carnegie, Phipps & Co. (jointly), 13.5%, Joliet Steel Co., 8% Lackawanna Iron and Coal Co., 8%, Cambria Iron Co., 8%, Scranton Steel Co., 8%, Union Steel Co., 8%, Cleveland Rolling Mill Co., 4.8% Troy Steel and Iron Co., 4.5%, Western Steel Co., 4.5%, Worcester Steel Co., 1.4%.

And in addition to the 800,000 tons of rails above allotted an additional allotment of 250,000 tons is hereby made and allotted to the Board of Control, to be reallocated and reapportioned by it, as and to whom it may deem equitable, in the adjustment of any differences that may arise. It being also further agreed that all subsequent allotments of rails hereafter made, to be sold under this agreement during the year 1888, shall also be divided and apportioned to the several parties hereto in the same ratio of percentages as said apportionment of 800,000 tons is herein divided and apportioned.

It is further agreed that the Board of Control shall, from time to time, make such further allotments as shall be necessary to at all times keep the unsold allotments at least 200,000 tons in excess of the total current sales, as shown by monthly reports of sales. This is to be in addition to the then unappropriated part of the 250,000 tons hereinbefore allotted to the Board of Control to adjust differences.

It is further agreed, on the first day of April, July and October, the Board of Control are authorized and directed to cancel such part of the unmade allotments of the respective parties hereto as they the said Board of Control shall determine such party to be unable to make in due time, and all allotments so cancelled the Board of Control shall have the right to reallocate to any of the parties hereto, it being understood that all such cancellations shall apply only to allot-

APPENDIX A (2)

ments standing to the credit of the respective parties hereto on the dates above named, but no reallotment as aforesaid shall be made by the Board of Control to any of the parties hereto for the purpose of enabling them to sell rails from foreign made blooms.

It is further agreed, that all transfers of parts of allotments from one party to another shall be made by the Board.

It is further agreed that there shall be a Board of Control consisting of three members namely, Orrin W. Potter, Luther S. Bent, and W.W. Thurston, who shall have power to employ a paid secretary and treasurer.

It is further agreed that the Board of Control upon the written consent of 75% of the percentages as hereinbefore named, shall increase the allotments for the year 1888 and such increase shall be allotted to the parties hereto as hereinafore provided.

It is further agreed that each party whose name is hereto annexed, shall and will make monthly returns to the Board of Control of all contracts for delivery of rails 50 pounds to the yard and upward during the year 1888 and also of all shipments of such rails made by them during said year.

It is further agreed, that all parties thereto shall and will on or before Jan. 15, 1888, make a written return to the Board of Control of all rails 50 pounds to the yard and upward which they respectively had on hand Jan. 1, 1888, stating whether the same are sold and if sold, on what order they apply.

It is further agreed, that the Board of Control shall have the right whenever they deem it expedient to convene a meeting of the parties hereto, and they shall give at least 10 days previous notice of all meetings, and receiving 75% of the votes present thereat either in person or by proxy, shall be binding on all the parties hereto except a change in the percentages as aforesaid.

The Board of Control shall be required to call a meeting of the parties hereto when requested to do so in writing, signed by any three of the contracting parties, but such request and such notice shall state the object for which the meeting is called.

The Board of Control shall have authority to levy an assessment, pro rata to the allotted tonnage, to defray the actual expenses made necessary to carry out the agreement.

It is further agreed, that we will, respectively, immediately make return to the Board of Control of all rails of 50 pounds to the yard and upward which we are now under contract to deliver during the year 1888, said return to state to whom such rails are sold and to whom they are to be delivered.

(signatures)

APPENDIX B

THE SHERMAN ANTI-TRUST LAW.

Act of July 2 1890, 26 U.S. Stats. at Large, 31st Cong.
1st Sess., chap. 647, p. 209.

An act to protect trade and commerce against unlawful
restraints and monopolies.

Be it enacted by the Senate and House of Representatives
of the United States of America in Congress assembled,

Sec. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations is hereby declared to be illegal. Every person who shall make any such contract or engage in any such contract or conspiracy, shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be punished by a fine not exceeding \$5,000, or by imprisonment for one year, or by both said punishments, in the discretion of the court.

Sec. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other persons or persons, to monopolize any part of the trade or commerce among the several States or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding \$5,000, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Sec. 3. Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such territory or territories and any State or States or the District of Columbia, or with foreign nations, or between the District of Columbia and any State or States or foreign nations, is hereby declared to be illegal. (Penalty the same)

Sec. 4. The several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act, and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petition setting forth the case and praying that such violation be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition the court shall proceed as soon as may be, to the hearing and determination of the case, and pending such action and final decree, the court may at any time make such temporary restraining order or prohibition as shall be deemed just in the premises.

APPENDIX B (2)

SHERMAN ANTI-TRUST LAW.--Cont.

Sec. 5. Whenever it shall appear to the court before which any proceedings under section four of this act may be pending, that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not, and subpoenas to that end may be served in any district by the marshal thereof.

Sec. 6. Any property owned under contract or by any combination, or pursuant to any conspiracy (and being the subject thereof) mentioned in section one of this act, and being in the course of transportation from one state to another or to a foreign country, shall be forfeited to the United States and may be seized and condemned by like proceedings as those provided by law for the forfeiture seizure, and condemnation of property imported into the United States, contrary to law.

Sec. 7. Any person who shall be injured in his business or property by any person or corporation by reason of any thing forbidden or declared to be unlawful by this act, may sue therefor in any circuit court of the United States in the district in which the defendant resides or is found without respect to the amount in controversy, and shall recover three fold the damages by him sustained, and the cost of the suit, including a reasonable attorney's fee.

Sec. 8. That the word "person" or "persons" wherever used in this act shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, or the laws of any of the territories, the laws of any state, or the laws of any foreign country.

APPENDIX C

A CONTRACT BETWEEN THE SOUTH IMPROVEMENT COMPANY AND
THE PENNSYLVANIA RAILROAD, JAN. 18, 1872.

Agreement made and entered into this 18th day of January in the year 1872, by and between the South Improvement company, a corporation organized and existing under the laws of the State of Pennsylvania, party hereto of the first part and the Pennsylvania Railroad Company, on its own behalf and on behalf of all other railroad companies whose roads are controlled, owned or leased by it, or with which it has sufficient running relations, which other roads are described as the connections of the said Pennsylvania Railroad Company, party hereto of the second part, witnesseth :

Whereas the party hereto of the first part has been organized for the purpose, among other things, of increasing, facilitating, and developing the trade in and the conveyance of and transportation of petroleum and its products and for that purpose, proposes, among other things to expend large sums of money in the purchase, erection and construction of, and maintaining and conducting works for storage, distillation and refining, warehousing and transportation, and in various other ways, upon the inducement, among other things of this contract.

And whereas the magnitude and extent of the business and operations proposed to be carried on by the party hereto of the first part will greatly promote the interest of the party hereto of the second part, and make it desirable for it, by fixing certain rates of freight, drawbacks, and rebate and by the other provisions of this agreement, to encourage the outlay of the party hereto of the first part, and to facilitate and increase the transportation to be received:

And whereas it has been by and between the party hereto of the second part, for itself and its connections, the Erie Railroad Company for itself and its connections, and the New York Central Railroad, for itself and its connections that the business of transporting by railroad of crude petroleum and its products toward the Atlantic coast, from the points of production and refining, on their lines of road, shall be allotted by the party hereto of the first part to the said three railroads, in the proportion of 45% of the total to the Pennsylvania Railroad Company, ~~###~~ 27,5% of the total to the Erie Railway Company for itself and its connections, and 27.5% of the whole to the New York Central Railroad Company, for itself and its connections, and that the transportation beyond Pittsburgh and Cleveland over the railroads of the said companies and their connections, in other directions than toward the Atlantic coast, west from said points of production and refining, shall be allotted by the party hereto of the first part, in the proportion of one-third thereof to the party hereto of the second part, for itself and its connections and the rest to other roads.

Now therefore this agreement witnesses that the parties hereto, for themselves and their successors, in consideration

APPENDIX C

of the premises, of the mutual execution hereof, and of the mutual advantages hereby conferred, have covenanted and agreed and hereby do covenant and agree, each with the other as follows:

ARTICLE FIRST. The party of the first part covenants and agrees:

1. (Provisions concerning tank facilities)

ARTICLE SECOND. The party hereto of the second part covenants and agrees:

1. That the party hereto of the second part will pay and allow to the party hereto of the first part, for its own use, on all petroleum and its products, transported over the railroads of the party hereto of the second part and its connections, for the party hereto of the first part, rebates and on all transported for others drawbacks, at the rates hereinafter provided, except in the case specified in Art. 3

2. To deliver to the party hereto of the first part all petroleum and its products in packages transported over the railroads of the party hereto of the second part and its connections, by whomsoever shipped, and consigned to the party of the first part, at the warehouses of the party of the first part, at the seaboard and inland, at the depots of the party of the second part, at the places of destination, and to deliver all petroleum and its products in bulk owned by or consigned to the said party of the first part, at any point required on the line of the railroads of the party of the second part and its connections.

3. To transport and deliver petroleum and its products over the railroads of the party of the second part, and its connections, at gross rates, which shall at no time exceed the following, without the consent of both parties:

From any point on the Oil Creek and Allegheny River Railroad to Oil City, Union, Corry, or Irvineton, which are herein designated as common points, on each barrel of 45 gallons in bulk and on each barrel of 47 gallons in barrels, 30cent

On crude petroleum.

From any common point (for each barrel of 45 gallons) to-	
Cleveland	\$0.80
Pittsburgh	.80
New York	2.56
Philadelphia	2.41
Baltimore	2.40
Boston	2.71

All other points, except those on the Oil Creek and Allegheny River Railway, to the places of destination last named, the same rates as from the common points.

On refined oil, benzine, and other products of petroleum.

From Pittsburgh (for each barrel) to-	
New York	\$2.00
Philadelphia	1.85
Baltimore	1.85

From Cleveland to-	
Boston	\$2.15
New York	2.00
Philadelphia	1.85
Baltimore	1.85
From any common point to-	
New York	2.92
Philadelphia	2.77
Baltimore	2.77
Boston	3.07

From and to all points intermediate between the points aforesaid such reasonable rates as the party of the second part shall from time to time establish on both crude and refined.

4. To pay and to allow the party hereto of the first part, on all petroleum and its products, transported for it over the railroads of the party of the second part and its connections, the following rebates and on all transported for other parties drawbacks of like amounts as the rebates from the gross rates, the same to be deducted and retained by the party hereto of the first part for its own use from the amounts of freights payable to the party of the 2 part On the transportation of crude petroleum.

	Rebate
From the gross rate from any common point to-	per bli
Cleveland	\$0.40
Pittsburgh	.40
New York	1.06
Philadelphia	1.06
Baltimore	1.06
Boston	1.06

From the gross rates from all other points than the six places of destination last named rebates the same as on the rates from the common points.

On transportation of refined oil, benzine, etc.

From the gross rate from Pittsburgh to-	
New York	\$0.50
Philadelphia	.50
Baltimore	.50

From the gross rate from Cleveland to-	
Boston	.50
New York	.50
Philadelphia	.50
Baltimore	.50

From the gross rates from any common point to-	
New York	1.32
Philadelphia	1.32
Baltimore	1.32
Boston	1.32

From the gross rates to and from all points intermediate between the above points a rebate or drawback of one-third of the gross rate shall be paid.

From the gross rates from Pittsburgh, Cleveland, and other points to places west of the meridians of Pittsburgh and Cleveland a rebate or drawback of one-third of the gross rates shall be paid.

5. To charge to all other parties (excepting such as are referred to in article 3) for the transportation of petroleum and its products rates which shall not be less than the gross rates above specified, and should at any time any less rate be charged, directly or indirectly, either by way of rebate, commission, allowances, or upon any pretext whatsoever the same reduction per barrel shall be made to the party hereto of the first part, from the net rates provided for them, on all transportation for them during the period for which such reduction shall be made to others.

6 & 7 (Concerning proportion oil furnished & service)

8. To make manifests or waybills of all petroleum and its products transported over any portion of the railroads of the party of the second part or its connections, which manifests shall state the name of the consignor, the place of shipment, the kind and actual quantity of the article shipped, the name of the consignee, and the place of destination, with the date and gross amount of freight and charges and to send daily to the principal office of the party of the first part duplicates of all such manifests.

ARTICLE THIRD. And it is hereby further covenanted and agreed by and between the parties hereto that the rebates hereinbefore provided for the party hereto of the first part may be made to any other party who shall furnish an equal amount of transportation and who shall possess the works, means and facilities for carrying on and promoting the petroleum trade equal to those possessed and used by the party hereto of the first part.

ARTICLE FOURTH. And it is hereby further covenanted and agreed by and between the parties hereto that the party hereto of the second part shall at all times cooperate, as far as it legally may, with the party hereto of the second part to maintain the business of the party hereto of the first part against loss or injury by competition, to the end that the party hereto of the first part may keep up a remunerative and so a full and regular business, and to that end shall lower or raise the gross rates of transportation over its railroads and connections as far as it legally may, for such times and to such extent as may be necessary to overcome such competition, the rebates and drawback to the party of the first part to be varied pari passu with the gross rates.

ARTICLE FIFTH It is further mutually agreed by and between the parties hereto that this agreement shall continue and remain in force for a period of not less than five years and shall not then or thereafter terminate until one of the parties shall have given 12 months written notice to terminate it.

(Article 5 refers to method of changing rates, Article 6 provides that the gross rate shall be advanced at the will of the first party Article 8 treats of the mode of arbitration.)

Signatures.

(APPENDIX) - D.

Petitioner's Exhibit 631, U.S. vs. Standard.
 Price of water-white illuminating oil and margins, on
 Oct. 15, 1904 by specified towns throughout U.S.

(cents per gallon)
 NORTH ATLANTIC STATES.

	PRICE	MARGIN %	% OF COMPETITION
Maine			
Portland.....	11.50	2.34	14.00
New Hampshire			
Concord.....	11.00	2.08	.....
Nashua.....	11.00	2.14	4.7
Vermont			
Burlington....	10.00	1.54	1.0
Bellows Falls.	10.00	1.14	.....
Barre.....	10.00	0.69	.....
Massachusetts			
Boston.....	11.00	2.82	11.3
Brocton.....	11.00	2.18	0
Fall River... 10	10.50	2.15	0
Lowell.....	10.50	1.72	3.2
Lynn.....	11.00	-2.61	21.07
Sprinfieed....	8.00	-0.88	21.7
Worcester.....	8 .00	0.08	5.00
Connecticut			
Hartford.....	9.00	0.18	21.7
New Haven....	9.00	0.99	11.07
New Lomdon...	10.00	1.61	28.9
New York			
Albany.....	10.00	1.56	10.1
Binghamton...	9.50	1.00	39.1
Buffalo.....	10.00	2.01	10.4
Elmira.....	10.00	1.08	26.8
New York..... 210	9.98	2.31	8.6
Syracuse... ..	10.00	1.38	10.6
Yonkers..	11.00	1.56	7.6
Pennsylvania			
Altoona	11.00	2.98	0
Chambersburg	9.50	1.30	2.8
Chester	8.50	0.30	20.9
Harrisburg	10.50	2.47	xxd 10.3
Pittsburg	8.50	0.87	32.8
REading	9.50	1.32	26.7
Scranton	9.00	0.82	7.5
Williamsport	10.00	1.63	13.5
New Jersey			
Bridgeon	10.00	1.27	...
Camden	9.50	1.03	9.9
Newark	10.00	2.60	18.3
Trenton	9.50	0.83	12.4
Jersey city	10.94	2.59	7.5

APPENDIX D

Price of water-white and illuminating oil, in U.S.—cont.
(cents per gallon)

SOUTH ATLANTIC STATES.

	PRICE	MARGIN	% Competition
Maryland and D.C.			
Baltimore	8.50	.09	16.5
Frederic	10.00	1.70	....
Washington	8.50	.18	...
Virginia			
Norfolk	9.50	.68	29.6
Richmond	8.00	-.27	12.0
Roanoke	11.50	2.29	....
West Virginia			
Charleston	10.00	2.56	0
Wheeling	9.50	1.66	12.2
North Carolina			
Wilmington	11.00	1.99	1.1
Raleigh	12.00	1.56	...
South Carolina			
Columbia	13.00	2.27	0
Georgia			
Atlanta	13.00	1.98	0
Savannah	12.50	2.48	1.7
Florida			
Jacksonville	13.00	3.10	3.9
Tampa	14.50	3.93	.....

NORTH CENTRAL STATES.

Ohio			
Cincinnati	7.00	-1.09	45.3
Cleveland	7.00	.16	11.7
Columbus	9.50	1.72	2.3
Indiana			
Evansville	9.00	.05	29.0
Indianapolis	8.50	.12	22.0
South Bend	10.00	1.90	0
Illinois			
Chicago	8.50	.56	12.7
Decatur	9.50	.08	12.9
Joliet	9.00	.73	18.5
Michigan			
Detroit	8.50	.24	17.6
Calumet	12.25	2.40	....
Grand Rapids	9.50	1.14	....
Wisconsin			
La Crosse	9.00	.17	38.6
Milwaukee	8.50	.65	38.6
Eau Claire	10.75	1.14	....
Minnesota			
Duluth	8.50	-.88	9.9
Minneapolis	9.50	.24	41.8
Mankato	11.50	2.34	0
Iowa			
Clinton	10.00	.17	.....
Cedar Falls	12.25	2.10	....
Des Moines	10.75	.53	41.8

APPENDIX D

NORTH CENTRAL STATES		Cont.	
	PRICE	MARGIN	COMPETITION
Missouri			
Missouri			
Kansas City	10.00	.27	24.2
St. Joseph	11.00	1.52	0
Kansas			
Leavenworth	10.50	.48	00..
Fort Scott	12.00	1.98	...
Wichita	10.00	.48	32.1
Nebraska			
Omaha	10.00	.41	21.7
Hastings	13.00	1.49	....
Fremont	12.00	1.45	...
North Dakota			
Fargo	13.50	2.10	0
South Dakota			
Huron	14.50	2.27	...
Sioux Falls	12.00	.35	00.

WESTERN STATES

Montana			
Butte	23.00	5.76	0.8
Wyoming			
Cheyenne	18.00	4.32	0.6
Colorado			
Denver	16.00	3.39	0
Leadville	20.00	5.47	0
New Mexico			
Albuquerque	23.00	6.48	7.0
Utah			
Salt Lake City	20.00	4.09	09
Washington			
Seattle	15.5	4.17	0
Spokane	21.50	4.12	0
Oregon			
Portland	15.00	4.12	0
California			
Los Angeles	7.50	- 3.16	33.4
Oakland	12.50	2.46	0.3
Sacramento	13.00	2.45	0
San Francisco	12.00	1.73	7.1

Taken from Stevens, Industrial Combinations
And Trusts. pp. 335-339.

B I B L I O G R A P H Y .

American Economic Association, Publications.
April, 1913.

Annals of the American Academy of Political and Social
Science, ~~Annals~~ July 1913

Baker, Charles Whiting. Monopolies and the People.
G.P. Putnam's Sons, New York and London, 1899.

Bridge, Jas. H. The Trust, its Book, Doubleday Page & Co.
New York 1902.

Casson, Herbert N. A Romance of Steel. Barnes New York. D

Chicago Conference on Trusts. Speeches and Debates.
Sept. 13-16 1899. The Civic Federation Chicago.

Clark, John Bates. The Control of Trusts. Macmillan Co.
New York, 1901.

Clark, John Bates. The Problem of Monopoly. Columbia
University Press, 1904.

Davis, John P. Corporations. G.P. Putnam's Sons N.Y. 1905

Ely, Richard T. Monopolies and Trusts Macmillan Co.
New York 1900.

Industrial Commission Reports.
Vol. XIII. Report on trusts and industrial combi-
nations. 57th Cong. 1st session House Doc. 182
Govt. Print. Office Washington 1901.

Le Rossignol, Jas. Edward. Monopolies, Past and Present.
T.Y. Crowell & Co. N.Y. 1901.

Laughlin, J. Laurence. Industrial America. Berlin Lectures
of 1906. Scribner's Sons. New York 1906.

MacGregor, D.H. Industrial Combination. Geo. Bell & Sons.
London 1906.

Macrosty, Henry W. The Trust Movement in British Industry
Longmans, Green & Co. London 1907.

Meade, Edward Sherwood. Trust Finance. D. Appleton & Co.
New York 1903.

Montague, Gilbert H. Trusts of To-day. Phillips & Co.
New York 1904

Bibliography - Cont.

Moody, John. The Truth About the Trusts. Moody Publishing Co., Chicago 1904.

Nolan, Edward J. Combinations, Trusts and Monopolies. Broadway Publishing Company, New York, 1904.

National Civic Federation. The Trust Problem. Opinions of 16,000 representative Americans New York Feb. 20. 1912.

Ripley, William Z. Trusts, Pools and Corporations. Ginn Boston, New York, 1905.

Schnacke, Francis Dean. Sherman Anti-Trust Law, in its Relation to the Economic Welfare of the United States. Thesis, U. of Kansas 1912.

Stanley Committee Report, (on Steel Corporation), Hearing before the Committee on Investigation of the United States Steel Corporation. 62nd Congress 2nd Session 1911-1912

Stevens, William S. Industrial Combinations and Trusts. Macmillan & Co. New York 1913.

Senate Committee on Interstate Commerce. Hearings on the Control of Corporations. 62nd Cong. 2nd session. 1911-1912.

Tarbell, Ida M. The History of the Standard Oil Company. MacClure Phillips & Co. New York 1904. (2vol)

United States. Bureau of Corporations. Report of the Commissioner of Corporations on the Transportation of Petroleum. May 2, 1906. Govt. Print. Office. Washington.

Report of the Commissioner of Corporations on the Petroleum Industry. May 2, 1907. Govt. Print. Office, Washington. Part I, on position of the Standard Oil Company in the Petroleum Industry.

Report of the Commissioner of Corporations on the Petroleum Industry. Part II, on prices and profits. Aug. 5, 1907. Govt. Office, Washington.

Report of the Commissioner of Corporations on the Tobacco Industry. Part I, on the position of the Tobacco Combination in the industry. Feb. 25 1909, Govt. Print. Office, Washington.

Report of the Commissioner of Corporations on the Tobacco Industry. Part II, Capitalization, Investment and Earnings. Sept. 25, 1911 Govt. Print. Office, Washington.

Bibliography- Cont.

United States Bureau of Corporations.

Report of the Commissioner of Corporations on the Steel Industry. Part I, on The Organization Investment, Profits and Position of the United States Steel Corporation. July 1, 1911. Govt. Print. Office Washington,

Report of the Commissioner of Corporations on the Steel Industry. Part II, on Cost of Product Preliminary Report, Jan. 22, 1912 Washington.

The International Harvester Company, a Report. March 3, 1913. Govt. Print. Office, Washington.

Annual Reports of the Commissioner of Corporations to the Secretary of Commerce and Labor. Govt. Print. Office. Washington, 1909-1912.

United States Bureau of Labor.

Bulletin No. 93, March 1911. Govt. Office. Washn.

United States of America v. Standard Oil Co., of New Jersey. In the Circuit Court of the United States for the Eastern Division of the Eastern Judicial District of Missouri.

Brief of Facts and Argument for the Petitioner.

United States Statutes at Large.

Vol. 26. 51st Cong., 1st sess., chap. 647 p. 209.

Von Halle, Ernest. Industrial Combinations in the United States. Macmillan & Co, New York 1906.

Van Hise, Charles Richard. Concentration and Control, a Solution of the Trust Problem, Macmillan & Co. New York, 1913

Wilgus, Horace L. A Study of the U.S. Steel Corporation Callaghan & Co. Chicago 1901.

Wilson, Woodrow, "Freedom of Opportunity." Worlds Work, April 1913 and continuing.

University of Kansas Libraries



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