THE INDUSTRIAL TRUST

Chapter IV

The trend towards consolidations was quite as strong in manufacturing by 1878 as in communications. It was forced mainly by what was called over-production - more correctly under-consumption. The manufacturer had learned how to double, treble, quadruple output by the use of machinery. He had been taking full advantage of every new devices with little or no regard to its effect on either markets or labor. Where the efficient broom maker had once kept seventeen men busy making five hundred dozen brooms in a week he was now turning out twelve hundred dozen with nine men. Carpet makers were using one man where thirty years before they had used from ten to twenty. Where once a first class journeyman made six hundred to one thousand two pound cans by hand now with a machine he made two thousand to two thousand five hundred. A fifty percent displacement of labor was not unusual. (1)

This output was thrown on the market before the labor displaced had been absorbed. This meant for a time at least cutting off the purchasing power of the men thrown out of work, that is a weakening of the market. The possible advantage to the consumer from cheaper goods was thus

1) Wright, Carroll D. Industrial Depression, First Report of United States Labor Bureau. Page 82 et sq.

minimized.

There was little scientific attempt to measure demand. Production out-stripped consumption alarmingly in some cases. Thus in the iron industry there was a sixty seven percent increase between 1879 and 1883. This was made with fewer furnace stacks and was the result of developments in processes. (1)

Under the pressure of a wanton production the weaker producer went to the wall, still further cutting down purchasing power.

Along with this over-strained use of new machines went an abnormal organization of capital. (2)

Behind the manufacturer pushing or enticing him to building plants, regardless of existing capacity, to enlarging what he already had, were men with unemployed capital which they wanted to invest and seeing that money was making in a certain manufacturing line were willing to go into iron or glass or wire or textiles. What they were seeking was not active business but "to convert their wealth into the form of negotiable securities paying dividends or interest with regularity and on the recipiency of which the owner could live without personal exertion or risk of principle." (2)

1) Wells, David A. Recent Economic Changes. Page 140 (

~~2) Wright, Carroll D. Industrial Depression, First Report of United States Labor Bureau. Page 90~~

2) Wells, David A. Recent Economic Changes. Page 75 (1889)

The creating of market for such securities was frequently, though less often than was popularly supposed, a pure speculation on the part of those who organized the company or corporation. They organized to sell stock, not to make iron or run a railroad, and the avidity with which a certain public seized an issue in a new venture without scrutinizing what was behind it was what stock promoters and speculators fed so well on. Without a greedy and gullible public they could not have lived.

Over-production, whatever was behind it, sooner or later forced prices too low for profits - caused bankruptcy of the weak - temporary losses to the strong - short or long periods of unemployment and general business instability.

In every industry there were attempts to correct this instability. The favorite form was the pool. In essence this was a voluntary agreement of all, or at least a majority, of the units in an industry to produce and handle their individual product according to a set of fixed rules. The contract and its regulation differed in almost every case - so did the results.

The most substantial pool in 1878 was that between the salt producers of Michigan. The industry had gone up and down since it was started in the state in 1860 largely according to its degree of success in curbing over-production.

It had come to be an axiom with old timers in the three great salt fields of the country - New York, Ohio and Michigan - that "organized we have prospered; unorganized we have not."

In Michigan the public opinion agreed that the combinations had raised the grade of salt by the system of inspection it had established and when it was successful brought "order and stability" into the business. Also undoubtedly the public paid a little higher for its salt, but no association had long endured. As soon as it was seen that the producers were making money, capital pushed in, price cutting followed and there was a gradual return to unchecked competition. The case for the Michigan individual manufacturer was the worse because the other salt districts were successfully organized.

The association which was doing so well at the opening of our period had been formed in 1876 after several disastrous years in which, as one observer said, "It was a Donnybrook Fair in the salt market. If you saw a head you hit it." (1) The Association was formed as an escape from this unprofitable war and also as a treaty-making power with the Ohio and New York districts.

The Michigan Salt Association was a stock company in which the amount of stock held was limited to one share for

1) Ripley, William Z. Trusts, Pools and Corporations
Jenks, J. W. The Michigan Salt Association. Page 11

each barrel of average daily capacity. Its business was the manufacturing and marketing of salt. It paid a seven percent dividend and all expenses before the profits were divided. Each member of the Association was obliged to make a new contract every year, to turn over to the Association his full product or to lease his plant to the Association. The life of the Association was limited to five years.

It was fortunate in securing an efficient management, experienced enough to detect weaknesses or raids, flexible and shrewd enough to take care of them. When at the end of five years the Association expired by limitation it was at once re-organized for a second five year period; again in 1886 it was reorganized for a third five year period.

The public interest in cheap salt was fairly, not entirely, satisfied by the organization which controlled about eighty five percent of the output. It had no hesitation when challenged to squeeze out a troublesome competitor. (1)

It did prevent a practice which regularly under full competition had raised prices to consumers and cut them for producers - the practice of large dealers in the territory served by Michigan of buying great quantities of salt in summer when it was cheap and plentiful and storing until winter when it was scarce. They could demand a high price from which they alone profited. (2)

1) Ripley, William Z. Trusts, Pools and Corporations
Jenks, J. W. The Michigan Salt Association

2) Idem

A looser and much less enduring form of pool was that of the makers of cordage, binding twine, ropes of all kind. Cordage was an inviting industry since it required little capital and fed a constantly growing market. Since 1860 pools had been regularly formed to limit over-production which the inrush of fresh capital and consequent cutting of prices below the profit mark caused. They rarely lasted over three years. "Breaking up, fighting and getting together again" was their story. (1)

The form of organization was outlined for the Industrial Commission in 1901 by J. M. Waterbury a member of the pool existing in 1880.

"Well, all manufacturers would meet and agree to divide the business of the country upon certain percentages, and when they had agreed on the percentages the rule was that each manufacturer should make his returns monthly to a supervisor, and if his business ran beyond his percentage he paid in to the supervisor so much per pound on the excess beyond his percentage; and then those that went below that percentage drew out from the supervisor an amount as much per pound as they went below their percentage. The supervisor acted as a clearing house for the manufacturer." (2)

The member which made the most of this contract was the long established Plymouth Cordage Company Massachusetts now - 1935 - an independent concern in its 111th year of continuous operation. It was the policy of the Plymouth Company to make more than its allotment and cheerfully to pay the fixed amount per pound on this surplus which was distributed to those

1) Industrial Commission. Vol. XIII. Page 126. (1901)

2) Idem

who made less than their allotment. The result of this policy was that at each renewal of the arrangement its percentage was greater; while that of some of its competitors who had been content to shut down their mills and take their allowance had dwindled. By 1885 the Company's allotment, originally ten percent, had risen to twenty percent of all the business of the country. (1)

Not all of the minor pools formed around 1880 were as loose in construction as the Cordage pool. For instance the American Wall Paper Manufacturers Association included practically every factory in the country. Prices were fixed and maintained at a high point. Each company furnished the security for the performance of its contract. Those who failed to live up to their agreements were fined. The administration was in the hands of a commissioner.

An interesting feature of the Wall Paper pool was the attempt to drop the middle men and deal directly with customers. But this had its come-back since many of the middle men went into the business.

The pool broke because certain manufacturers sold goods at less than scheduled prices and failed to report, that is because of the unfair practices of its members.

The reason why the pool was an unsatisfactory instrument for establishing order and stability in a business has been admirably set down by William Z. Ripley.

1) Plymouth Cordage Company. One Hundred Years of Servic
Pages 39, 40. (1924) Plymouth, Mass.

"Patent as are the advantages to producers of pooling contracts, they suffer from two inherent defects. Of these the first is that they are at variance with the underlying principles both of common and statute law, and hence are not enforceable in the courts. No effective guarantee for good faith is afforded other than the creation of deposits, the imposition of fines and other more or less mechanical devices. And a second objection lies in the fact that pools are necessarily but temporary expedients after all, affording no certainty for stability of price or of industrial policy for any extended period." (1)

Industry had not been depending solely on the pool as an instrument of stability. It had steadily sought a device which would overcome the chief weakness - the inability to hold members to their contracts. It could not be done by an agreement without teeth; an alternate which had teeth was the securing by an individual or group of individuals control of some element essential to the life of an industry. The railroads, the telegraph, the telephone had such a whip hand in ~~this~~ Their exclusive ~~purchase~~ Control of raw material would do this but usually nature had scattered raw materials so widely and so prodigally, and there were so many men who preferred the adventure of seeking them to remaining safe at home, that in 1878 no major industry had successfully secured and held a monopoly of any raw material.

1) Ripley, William Z. Trusts, Pools and Corporations Page XII of Introduction.

An exclusive patent gave an advantage which might temporarily give a monopoly, but here again nature interferred endowing many men with the brains of the inventor and a patent which created a monopoly was usually quickly followed by others which accomplished the same thing often in an improved way.

An advantage much sought in industry at this time, was control of transportation. If you could ship your raw material and your product at a lower rate than your competitor you could under sell him and finally force him in or out. While public opinion was strongly opposed to discriminations in any form by the railways the opposition had not yet crystallized into a Federal Statute defining and forbidding them something by this time loudly demanded.

The most brilliant illustration in 1878 of the supremacy possible through a control of shipping rates was the practial monopoly of the Petroleum industry which had been established in less than a decade by an oil refining and marketing concern of Cleveland, Ohio, known as the Standard Oil Company.(1) So complete and so oppressive was its control of transportation that in 1879 the Commonwealth of Pennsylvania - the state which at that time produced the bulk of the world's oil - had on the representation of the Petroleum Producers' Union brought suit in equity against the Pennsylvania Railroad and the oil collecting and delivering pipe lines owned and controlled by the Standard Oil Company. The result of the hearings in these suits was an indictment in April 1879 of

1) Nevins, Allan. The Emergence of Modern America (A History of American Life, VIII, 397-400

the President of the Standard Oil Company, John D. Rockefeller, and seven of his associates. The indictment charged a conspiracy to secure a monopoly of the oil business through control of transportation. (1)

Coincident with the hearings which led to the indictment the State of New York and Ohio were conducting investigations into the relation of its railroads, not only with the Standard Oil Company but with other industries which were suspected of receiving special favor. ~~Ohio also had instituted an investigation into the relations of the Standard to transportation in that State.~~

The evidence brought out in the early years of our period in the above suit and investigations as well as that brought out in various private suits against the Standard Oil Company established beyond question that it had obtained its supremacy by following a formula which its leading stockholders, together with a group of refiners in Pittsburgh and Philadelphia, had adopted in 1871 and by which they hoped to obtain control and so stabilize an industry in which periodically more crude oil was produced than could be sold at the price the producer demanded, more oil refined than as yet there were markets developed to handle.

The formula for stabilization adopted by the South Improvement Company, as the gentlemen concerned called their organization, framed called for:-

1) United States of America vs. Standard Oil Company of New Jersey. et al. Brief of Facts and Arguments for Petitioners. Tarbell, I. M. The History of the Standard Oil Company (1904) 239 et sq.

rebates on not only the oil the members shipped but drawbacks on all shipped by outside concerns unless they could furnish the same amount of oil to the railroads as the South Improvement Company claimed it could and had the means to do it with equal convenience to the roads. Members of the South Improvement Company were to receive daily from the railroads way bills of all petroleum shipped thus enabling them to know whether the railroads were keeping their contracts, also to check up on what they should collect on other people's shipments.

The Cleveland members of the South Improvement Company were the first to make certain that they were in position to earn their rebates and drawbacks, that is that they controlled more oil freight than any other concern or group of concerns in the town. It had not been difficult for the President of the concern, Mr. John D. Rockefeller, to persuade his competitors to sell to him when he showed them the contracts ~~which the evidence showed was~~ signed by all the oil carrying roads in January of 1872. These sales were made under pledge of secrecy. (1) but unfortunately for the formula the proposed schedule of rates and rebates leaked out in the Oil Regions before the Pittsburgh and Philadelphia refiners had been able to execute their coup. There was no question about what ~~was~~ it meant. It was the destruction of the independent refining industry which had started as soon as it had been demonstrated that oil could be produced in commercial

1) History of the Rise and Fall of the South Improvement Company

quantities. It meant one buyer for crude oil, a buyer who could and naturally would in the judgment of oil producers cut the price of crude and raise that of refined. There was an immediate mighty uprising with many wrathful meetings the result of which was an agreement by all parties to abandon the undertaking and a solemn agreement by the railroads henceforth to give no more rebates to any one.

Only a man of astonishing resourcefulness, unbreakable patience, unwavering singlemess of purpose, complete confidence in his own judgment could have continued after the abandonment of the scheme by which he had been so enriched to have continued its unpopular and injurious provision. But the president of the Standard Oil Company, John D. Rockefeller, had these qualities and more of almost equal value in his undertaking. He was a man who gave himself entirely to his business, saw it as a whole, its smallest detail and its largest possible ramification. He knew how to select and handle his associates, what to tell them and what to conceal. He took deep satisfaction in economies, had a hatred of waste in small as well as great things. Combined with these qualities was a genius for organization which it would be difficult to parallel in American industry. With such an equipment nothing could have prevented Mr. Rockefeller becoming one of the leaders, probably the greatest in the oil business and this without the aid of the South Improvement Company formula.

But Mr. Rockefeller detested and feared free competition and the disorder and uncertainties which attend it. It interfered with stable prices and profits; it glutted the crude and refined markets; it was wasteful. He saw no way to bring order and stability into the oil business save by controlling it himself. He and those who went with him must take over the entire oil refining and marketing business of the country. Then it could be run economically, efficiently and profitable for those in the combination. This could only be done by an alliance with the railroads which gave them special rates. It was fair to ask them, he held, because they would be the biggest and the most regular and orderly shippers.

In the seven years after the South Improvement Company was abandoned the Standard Oil Company of Ohio was able secretly to secure with all the oil-carrying roads contracts, identical at least in effect/ with those resigned in 1872. These special advantages combined with the genius of its leader enabled it to add to its holdings by stock purchase, property purchase, direct or through companies organized for that purpose, some seventy four (1) refining concerns including many of the most successful in their districts. Contracts limiting the quantity of oil to be refined had also been made with certain firms strong enough to refuse to sell. (2)

1) List of Refining and Manufacturing concerns acquired by Standard Oil interests between 1872 and 1879. See tables Page 99 et sq. Brief for Petitioner VI United States of America vs. Standard Oil Company of New Jersey et al. Vol. I

2) United States of America vs. Standard Oil Company of New Jersey et al. Defendants Exhibits. Vol. 16 Page 3159 et sq.

At the opening of our period the Standard Oil Company was manufacturing from ninety to ninety five percent of the output of the country. (1)

In securing the control of the refining industry the Company had been aided by its success in carrying out one of the most far-sighted policies in its history, that is gaining control of the pipe lines which carried oil from the wells to the railway shipping points as well as to the tanks in which surplus was stored. The control of the pipe line was practically complete.

The indictment of Mr. Rockefeller and his associates together with the demonstration of their methods naturally attracted public attention. It was an object lesson in success, also in evasion, for the gentlemen were never brought to trial. There was repeated delays sought by the defendents "on advice of counsel." An investigation making in New York State at the same time interfered. How can a man soon to be tried for conspiracy be expected to answer these questions? "I shall inciminate

1) United States of America vs. Standard Oil Company of New Jersey et al. Vol. VI Page 3303

myself," one of the defendents in Pennsylvania suit asked the Hepburn N.Y. State Commission examiner. How could he? (1)

The railroads brought such pressure to bear on the state authorities to drop the prosecution, ~~the~~ so the producers believed, that they were glad to seize any pretext for delay. (2) A settlement was finaly arranged which killed the Producers' Union. But it did not end the effort to escape the control of the transportation monopoly which the Standard Oil Company had now achieved and which it was handling in as masterly manner as it had from the first handled refining. The first escape sought was through a pipe line to the seaboard by which a refiner could ship his crude directly from the wells without favor of the railroads. An attempt to lay such a line from the Oil Regions to Baltimore had been made in 1876 by the Pennsylvania Transportation Company, the chief engineer being General Herman Haupt, the Civil War bridge builder.

General Benjamin Butler, chief engineer, was named as chief legal counsel. The project attracted great attention but failed by a combination of railroad opposition and bad financial management. However, the idea was planted and in the fall of 1878 the Tidewater Pipe Company was organized to lay a pipe from the Bradford Pennsylvania oil field, by this time the center of production, one hundred nine miles over the Allegheny Mountains to a point where it would connect with the Reading

1) Bostwick, Jabez A. Testimony taken before the Hepburn Commission N.Y.State - 1879
2) A History of the Organization, Purposes and Transactions of the General Council of the Petroleum Producers' Union and of the Suits and Prosecutions instituted by it from 1878 to 1880

Railroad which heretofore had carried no oil and was glad to get the freight until the line could be completed.

The right of way was obtained quickly, but as soon as work began there was strong opposition on the part of railroads and the Standard interests. It took the form of ridicule - oil could not be pumped over the mountains - of rumors of financial weakness, guerilla like efforts to breaking the right of way, but it did not prevent the completion of the project and in May of 1879 it was ready to prove whether or no oil could be pumped over mountains. It was a great occasion. The Westernmost pump was started on the 28th. The oil flowed up and on about as fast as a man could walk. It was attended on its way by both believers and doubters. It took seven days to complete its journey of one hundred nine miles and begin delivering oil to the Reading Railroad.

There was no question when it finally arrived in the minds of either the Tidewater or the Standard Oil Company that henceforth oil would eventually be carried where it was wanted by pipes instead of rails. The railroads fought the newcomer. Rates were lowered on the oil carrying roads until they were far below cost. The pipe line while completing its way to the seaboard, after its successful demonstration, encountered the same guerilla tactics that it had fought on its first lap.

It was not until 1886 that the Tidewarer pipe line reached New York City, but by that time the company was no longer

a free agent. It had attempted to integrate its business by adding refineries of its own, developing its own markets, but the Standard Oil Company had opposed its undertaking and finally in 1883 a division of interests was effected which gave ~~its~~ Standard Oil Company eighty eight and one half percent of the business - the Tidewater eleven and a half percent. (1)

The "gentlemen's agreement" between the Tidewater and the Standard did not end the struggle of the Independents. A fringe of irreconcilable oil producers, refiners, local pipe line men persisted in efforts to do business in an industry which in these years was swamped by a greater and greater production of oil. A "shut down" was tried for a few months and like all such efforts at artificial control in the end benefitted only the strong. Co-operative oil companyswhich were to furnish pipe lines and storage tanks to take care of the producers' output accommodations which the Standard alone was now giving were organized in 1888 and 1889. This effort was thwarted by the Standard buying control of the companies - a new alarm - for up to 1887 the Standard Oil Company had not been an oil producer. Now however the difficulty of controlling the industry to their liking forced them into production. It was the last step to complete integration.

~~Beginning as oil refiners in 1865 the Standard had added carefully to that business all accessories which could be~~

1) Agreement between Standard Oil and Tidewater Pipe Lines
Tarbell, I. M. History of Standard Oil Company (1904)
Appendixx VII No 39 B. Page 303

There were enough producers left behind after the buying of the oil companies to keep alive the determination of the Producers Protective Association which had engineered both shut down and cooperation in handling its own oil.

But they must have a closer knit organization and in 1891 they formed a Producers Oil Company with a capital of $600,000. Over a thousand producers subscribed to the stock, but they had to have a market. The few independent oil refiners left in the Oil Regions joined them, the two interests building a pipe line from the wells to the refineries, but how get the refined product to the seaboard. The railroads could be depended upon to refuse shipments at living prices and did. Again necessity forced an escape. Let us try shipping by pipe lines. This suggestion came from one of the most agressive, bold and resourceful leaders among the independents, Louis Emery Jr. of Bradford. It was objected that refined would be ruined by such transportation, but the idea had caught the imagination of the independents. At all events it was the only escape which offered and the allied Producers and Refiners undertook it, not only a line for refined but one for crude to supply any seaboard refiner bold enough to cast his lot with them. It was no slight business proposition this laying of the double pipe line. There was all the harrassing, even to physical violence, which had beset the first seaboard line but they went through finally and to the delight of the backers it was declared that the quality of their kerosine was improved by the churning it

received in transit.

The outcome of this struggle was finally an entirely independent oil company. The Pure Oil Company a $10,000,000 concern into which in 1900 the three interests which had combined their resources, the producer, refiners and pipe line were consolidated. It was an aggregation as completely integrated as the Standard Oil Company itself owning and controlling its crude oil, its refining, its transportation on both land and sea for by this time it had developed foreign markets. (1)

The most interesting examples after petroleum of this process of integrating the essential factors of an industry followed so logically and cautiously by the Standard Oil Company and finally used so successfully by the Pure Oil Company were in iron and steel.

Outside the food industries iron and steel was the greatest wealth producer of the Nation. The value of its products in 1880 compared with those of petroleum which at the time was receiving so much public attention was nearly seven times as great - $296,557,685 (2) for the one - $43,705,218 for the other. (3) It was also the industry upon which all others

1) Tarbell, I. M. History of Standard Oil Company. Vol. 2 Chapter IV A Modern War for Independence.

2) Compendium of Census of 1880. Page 1137. Part II

3) Idem Page 1253

were directly or indirectly dependent. For the fifty million people of the United States it was of vital importance that iron and steel be produced as cheaply as possible. Its price affected the cost of practically everything they

bought - tools of all sorts - wagons and ploughs - the stove on which the woman cooked - the freight rates on the shipments - of farmers ~~and~~ merchants and manufacturers. If the first element in a sound economic order was abundant food at prices within the means of all the first essential in its production and distribution was cheap iron and steel.

There were sound reasons for cheap production. First, there were the great deposits of iron ore and of coal, in widely separated areas making it possible to produce within reasonable distance of growing new markets.

At the opening of our period the leading iron ore producing center was Michigan. The value of the yield was something over six million a year. After Michigan came Pennsylvania with a value of a little over four million. Third in rank was New York State which was but little behind Pennsylvania in the value of its product. (1)

But while these were the known and developed centers, there were undeveloped, or only partially developed deposits, on which all of the established iron and steel producers were keeping a watchful eye. There was the Vermilion Range in Minnesota discovered in 1866. (2) It did not come into competition until the '80's. In 1883 the Illinois Steel Company bought 150,000 acres of this deposit and the next year, 1884, iron ore was shipped from their mines by water to Chicago. (2)(3)

1) Compendium of Tenth Census. Page 1242

2) Chronology of Iron and Steel. Pages 203, 205
Compiled by - Goodale, Stephan L.
Edited by - Speer, Ramsey J.

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1) Compendium of Tenth Census. Page 1242

in developing before the first cargo was shipped in 1884. (1) In the same year a second Minnesota district, the Gogebic, began to send ore to the market. (2)

2) Casson, Herbert N. Romance of Steel Pages 52-55 (1907)

3) Chronology of Iron and Steel. Compiled by Stephen L. Goodale Edited by Ramsey J. Speer. Page 205

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that it was not until 1875 that a capitalist was found willing to build the 66 mile-long railroad necessary to carry the ore mined to ~~the~~ Lake Superior a shipping point. This was Charlemagne Tower a Pennsylvania millionaire who sank some 4,000,000 in developing the field before the first cargo was shipped in 1884.* At the same time a second district in Minnesota, the Gogebic began to send ore to the market.*

(2) * Casson, Herbert N., op cit p. 52-53 (1907)

(3) + [illegible] p. 205