As in the case of other manufacturing industries, the years from the late 1870's until 1887 were a period of transition for sugar refining. Although the industry still retained its basically competitive structure—indeed, improvements in communications made it all the more competitive—it was now marked by increasing instability. This instability was manifested in various ways: in charges that extensive frauds were being perpetrated against the customs revenue of the United States, in efforts to change the tariff laws, in complaints that certain firms were adulterating their sugar, and in accusations that varying groups of refiners were conspiring to drive other groups out of business. The underlying cause of the instability, however, was the failure of the demand for refined sugar to expand as rapidly as the potential supply. Given the large fixed investment required in sugar refining, this meant that all but the one or two leading firms found themselves no longer able to cover their full costs, if an adequate return on invested capital is included as part of these costs. Agreements to limit output or fix margins brought, at most, only temporary relief. More drastic measures, it was finally realized, were required.

The first public manifestation of trouble in the sugar refining industry was a headline in the *New York Tribune* of September 6, 1878, hinting at extensive corruption in the collection of sugar duties. "... It is no longer a question of doubt," the accompanying article declared, "that for years there has been a systematic movement among certain importers and refiners of sugar to defraud the government. ..." Estimating the losses in customs revenue at $5 million, the *Tribune* added, "Many refiners and importers, who refused to go into this combination, have been driven out of business and no honest man can successfully compete with the combination." The charges had a familiar ring.

1 *New York Tribune*, September 6, 1878.
Still fresh in everyone’s mind were the recent revelations with regard to the so-called whiskey ring, which it was estimated had defrauded the government of approximately $3 million annually during the four years it had operated. One of the scandals that were to give the Grant administration its reputation for corruption, the “ring” was actually a pool, similar in its purpose to the combinations that arose in other industries during the immediate post—Civil War period to cushion the effects of a growing disequilibrium between supply and demand. The whiskey combination was, in fact, different from other pools only in its ability to enlist the cooperation of prominent government officials in its efforts to restrict output and prevent the entry of new distillers into the industry. With the connivance of Federal agents, certain favored distillers were able to avoid paying the seventy-cents-a-gallon excise tax on at least 50 per cent of the whiskey they produced, half the money saved going to the distillers themselves and half to the leading Republican politicians who had organized the scheme in each of the three major distilling centers, St. Louis, Chicago, and Milwaukee. Not only did the thirty-five-cents-a-gallon cost disadvantage make it extremely difficult for any firm not a member of the ring to survive in business, but also the federal revenue agents, with access to the records of any distiller, were able to see to it that the production quotas set by the pool were scrupulously honored. Yet the scheme originally intended to fill party coffers gradually became more and more a scheme to line the pockets of the prominent politicians involved, and it was this fact, as well as the growing brazenness with which the ring’s operations were conducted, that eventually led to its undoing. The resulting disclosures were among the reasons that the Grant administration fell into such bad repute during its final years.

Grant’s Republican successor, Rutherford B. Hayes, in an effort to improve his party’s image following the disputed election victory of 1876, sought in various ways to meet the public demand for polit-

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4 Testimony of David P. Dyer, the U.S. attorney who helped prosecute the whiskey frauds (U.S. Congress, House of Representatives, Select Committee Concerning the Whiskey Frauds, Whiskey Frauds, p. 31). See also Jeremiah W. Jenks, “The Development of the Whiskey Trust”; Lucius E. Guese, “St. Louis and the Great Whiskey Ring.”
5 Boynton’s “Whiskey Ring” is still the best account of how the ring was finally broken up. See also Guese, “The Great Whiskey Ring,” pp. 168ff.; Matthew Josephson, The Politicos, pp. 198–202.
ical reform. One of his first moves upon taking the oath of office was to appoint a presidential commission, headed by John Jay, grandson of the illustrious Founding Father and a well-known civil service reformer, to investigate the New York customs house, long regarded as a hotbed of corruption. The Jay commission, while condemning certain patronage practices and calling for various reforms, noted in its report, delivered to the president late in 1877, that it had found evidence of dishonesty on the part of only a few minor customs-house officials. The Democrats, however, sensing that the extent of corruption was much greater than the Jay commission had indicated, launched their own investigation of the New York customs house through the House Ways and Means Committee, which they then controlled. In the back of their minds, undoubtedly, was the hope that they might uncover further scandals, rivaling those which had so shocked the nation in the case of the whiskey ring.

It was this new investigation, conducted by Representative Fernando Wood, the aged former mayor of New York City, which brought to the surface the charges of widespread fraud in the collection of sugar customs. The article in the *Tribune* first reporting these charges appeared only two weeks before Wood formally opened hearings in New York, and that first article was followed by others.

Once the committee actually began its hearings, on September 17, 1878, the charges of fraud were repeated by many of the smaller refiners, especially those who had already been forced out of business. “Fraud has run through the sugar business here for ten years,” said William T. Booth, a partner in Booth & Edgar, a refinery which was on the verge of going out of business permanently. He then added, “I have been in and out among men and have preserved a good reputation; and when I say I know a thing to be so, no one will be found who will doubt my word. Now I say I know of frauds on the revenue in the importations of sugar which, when they are fully disclosed, will furnish reading that will astonish the people of this country.”

Employing a crude statistical analysis, witnesses before the committee were able to offer circumstantial evidence that the federal government was indeed being deprived of substantial sugar duties. The tariff on sugar was levied according to a color standard first developed by the Dutch. Until the invention of the polariscope, this so-called Dutch standard provided the only recognized means of determining the saccharin content of sugar. The lighter the shade of

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brown, the higher in saccharin content the sugar was supposed to be and the higher the absolute duty levied. Pure sugar was, of course, pure white and was taxed at the rate for refined sugar. Applying the tariff rate for each of the different grades of sugar to the quantities of each grade thought to be imported into this country, witnesses estimated that the customs collections from sugar were falling short of what they should have been by approximately $4 million a year, a rather significant sum. The question was whether the deficiency was due to systematic fraud or to the obsolete manner in which the government assessed the saccharin content of imported raw sugar.

As other witnesses before the committee testified, the invention of the centrifugal machine meant that growers in tropical areas were now able, with a modest capital investment, to produce sugar that was virtually free of all impurities. This sugar, sold in the United States on the basis of saccharin content as measured by the polariscope, commanded a top price. Yet because the duties on imported raw sugar were still levied according to hue, it was possible to pay the lowest duty simply by artificially coloring the sugar brown. A leading importer of sugar, after pointing out to the committee the resulting loss of revenue to the government, asked rhetorically, "Did the refiners get it? Certainly not, for the reason that the refiners buy all their sugars here upon their saccharin strength... the planters—the manufacturers of centrifugal sugars—are the ones, of course, that got [the benefit]." Undoubtedly, as everyone agreed, the law had to be changed, for the tariff on sugar accounted for nearly 30 per cent of all customs revenues, the major source of federal funds. But as to what form the changes should take, the industry split into two opposing camps.

7 The colors of the Dutch standard (D.S.) ranged in number from 1 to 25, the higher the number the lighter the shade of brown. Sugars classified D.S. No. 20 or higher were considered to be refined and were taxed at the full rate of five cents a pound. Those classified below D.S. No. 20 were taxed at a correspondingly lower rate as indicated below.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw sugars not above No. 7 D.S.</td>
<td>2.18¢</td>
</tr>
<tr>
<td>Raw sugars above No. 7 D.S. but not above No. 10</td>
<td>2.50</td>
</tr>
<tr>
<td>Raw sugars above No. 10 D.S. but not above No. 13</td>
<td>2.81</td>
</tr>
<tr>
<td>Raw sugars above No. 13 D.S. but not above No. 15</td>
<td>3.43</td>
</tr>
<tr>
<td>Raw sugars above No. 15 D.S. but not above No. 20</td>
<td>4.06</td>
</tr>
</tbody>
</table>


On one side were those who argued that the only change required was to substitute the polariscope test for the Dutch standard. If this were done, they said, the government would be assured of collecting whatever customs duties it was now losing. On the other side were those who argued that the purported losses from artificially colored Demerara sugars were a “mere bagatelle,” that adopting the polariscope test would not end the drain on government revenues. The Treasury Department was losing money, they charged, not because the wrong standard for determining the value of raw sugar was being applied, but rather because certain refiners, through deliberate underweighing and improper sampling, were systematically defrauding the government. If the drain on government revenues was to be halted, it was argued, far more fundamental reforms were required than the mere substitution of the polariscope test for the current color standards.

The conflict, however, involved more than just the question of how the sugar duties could best be collected. Those making the charges of fraud were primarily the smaller refiners, those whose plants were located away from the water’s edge. Allied with them were many of the raw-sugar importers, especially those representing Cuban and other Caribbean growers. What seemed to concern these two groups was not that the federal government was being defrauded, but that they, as a consequence, were being put at a certain disadvantage. As the *Commercial and Financial Chronicle*, which subsequently championed their cause, declared:

... These methods which have hitherto proved so efficacious in depriving the Government of many millions of revenue, and in enriching the parties who have availed of them, are to a certain extent open to both importers and important refiners, but the latter have . . . the immense advantage of receiving their cargoes at their own refineries, where, within twenty-four hours from the arrival of the vessel, the sugars [can] be dumped into the boiling vats, thus rendering all identification impossible; whilst the merchant importer is obliged to land his cargoes at public bonded stores, where they remain for days subject to re-examination by the customs officers and to consequent exposure. It is interesting to note that, as an outgrowth of the various charges, the only person to be convicted of defrauding the government was an importer.
The motivation of those making the charges of fraud was even more clearly indicated by the nature of the suggestions they offered for eliminating the supposed evils. These were that the government should permit no sugar to be landed at the refiners' private wharves and that a uniform rate of duty should be levied on all unrefined sugar. These suggestions, if adopted, would have canceled out any cost advantage the major refiners might have had, and in some cases would even have placed them at somewhat of a handicap. Thus the battle over the tariff was actually a maneuvering for position within the industry. In fact, because of the industry's then current condition, it had become a bitter struggle for survival.

From the moment that the elder Havemeyer first built his new refinery on the East River in Williamsburg, it had been recognized that a waterfront site offered certain cost advantages over a location in the heart of Manhattan. As one refiner later remarked, "The difference in transportation, lighterage, warehousing, and harbor expenses alone is sufficient to pay a dividend." Several of the refineries subsequently erected were also built on the water's edge, at various sites throughout the New York harbor, but many firms preferred to remain where they were. The expected savings did not seem to justify the additional capital expense that would have been necessary to relocate their plants. Besides, the margin between raw and refined sugar was more than sufficient to ensure a handsome profit even at the inland sites.

In 1870, refiners located on the water's edge had persuaded Congress to change the tariff on sugar so as to favor the importation of the lower grades. Previously, noted David A. Wells, one of the best-known publicists of his day, "owing to the policy of imposing but one . . . rate of duty on all sugars not above No. 12 [Dutch standard] the sugars of lower grades and prices were so discriminated against that none of them could be imported into the United States." This was because on the lower grades, such as No. 7 Dutch standard, importers were forced to pay, on an ad valorem basis, a much higher duty. As Wells added, "All such sugars, therefore, found their market almost exclusively in England, to the great benefit, in the absence of

\[16\] Commercial and Financial Chronicle, November 16, 1878; Brown, Sugar Frauds, p. 13.
\[18\] See note 7 above.
the world's competition, of British refiners and British commerce, and to the great detriment of the commerce and industry of the United States. . . . To remedy this situation, Congress divided the old category, "not above No. 12 D.S.," into three separate categories, thus making the duty on the lower grades of sugar correspond more nearly to their value.

Several of the refiners promptly began installing the equipment necessary to process these lower grades. The savings on the raw material would, they hoped, more than justify the additional expense. "Previous to 1870," Theodore Havemeyer later pointed out, "the capital invested by these firms did not amount to $4,000,000; but since that date two very large new refineries have been built, and already existing ones have increased their works, to the amount of $9,000,000, . . . and this in order mainly to enable them to produce the cheaper grades of sugar which the public now so largely demands." Again, many of the refiners refused to make the necessary capital investment. Profits, they felt, were sufficient without it.

But then the depression that followed on the heels of the Panic of 1873 accentuated a trend which had already been apparent for some time: the decline in the margin between raw and refined sugar. By 1874 this margin had fallen to 2.28 cents a pound, nearly a one-third decline in four years, and many of the smaller, inland refiners began to feel the pinch. "Their refineries," said J. O. Donner, a close associate of the Havemeyers, "were old-fashioned, their former large profits were either squandered or tied up in outside speculations, leaving them no means to make the necessary radical changes." Some owner-entrepreneurs, like the Stuart brothers, prudently withdrew from the industry; but others, for a variety of reasons, tried to hang on. Either they had sons who they hoped would one day succeed them in the business, or else they failed to perceive the changes that had taken place in sugar refining. In any case, they remained in the industry until it was too late to leave without taking a substantial loss. Their capital, they knew, could not be readily transferred to another industry, since the equipment in which it was tied up was of use only in sugar refining. Sold for scrap, that equipment would have brought only a fraction of its value as part of a going concern. More important, the skill and knowledge of these men also was limited to

19 Wells, The Sugar Industry and the Tariff, p. 27.
22 Donner, letter to the New York Evening Post, p. 4.
sugar refining, and many of them were too old to learn a new business. Caught in a desperate situation, these refiners began looking around for any means which might enable them to survive.

One of the first areas to which they turned their attention was the drawback allowance on exported sugar. The government had always refunded the customs duties paid on imported goods that were subsequently exported. However, in the case of sugar, it was difficult to apply this rule, for in the refining process there was always a certain loss of raw material. It was up to the Treasury Department to take this factor into consideration when deciding what was a fair and reasonable drawback, but the difficulty in determining this had led to numerous disputes down through the years.

In 1875 the small, inland refiners, joined by their largest competitors, appealed to the secretary of the treasury to increase the drawback allowance. The current rate, they argued, was insufficient to reimburse them for the duties they were forced to pay on the raw sugar consumed in the refining process. The secretary refused, but he did do something which had essentially the same effect. Previously, the government had retained 10 per cent of any drawback allowed, in order to cover the cost of collecting sugar duties. On March 3, 1875, Secretary of the Treasury B. H. Bristow, the man responsible for ferreting out and prosecuting the whiskey ring, reduced this fee to 1 per cent, the equivalent of raising the drawback allowance by thirty-four cents a hundred pounds.

Whether the secretary's decision was reasonable or not was difficult to determine. Theodore Havemeyer later contended that the increased drawback allowance merely enabled the refiners to recover 99 per cent of the duties they were forced to pay on the sugar processed and shipped overseas, but a statistical analysis by Treasury Department officials tended to show that the rate was excessive. In any case, whatever its merits, the increased drawback allowance amounted, in effect, to an export subsidy, and it "at once placed refiners in a position for largely increasing their export business." Whereas, before, American exports of refined sugar had been such an insignificant factor that no one had even bothered to keep a record of them, in the months following Bristow's decision they rose to a

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23 Papers Relative to the Drawback Rates on Exported Sugar, p. 1.
26 Henry A. Brown, Revised Analysis of the Sugar Question, pp. 17-18.
rate of more than seventy-two million pounds annually (most of this going to Canada). 28

This sudden blossoming of an export trade did bring the industry temporary relief from the downward pressure on margins. In its annual report for 1875–76, the New York City Chamber of Commerce reported that the increased drawback allowance was helping to take up some of the depression slack. 29 The increased allowance, however, proved too successful. British refiners soon complained that it was enabling Americans to undersell them by a third of a cent, and six months later, under pressure from the British foreign ministry, the secretary of the treasury reduced the drawback allowance from $3.75 to $3.21 per hundred pounds. 30 This drove American sugar from all but the Canadian markets, though in the latter the Americans’ success was complete, forcing the refineries in that country to close down. 31 Even this limited success proved too great, however. Alarmed by the large amounts they were forced to pay out to refiners, Treasury officials became convinced that the drawback allowance was still too liberal, and late in 1877 reduced it to 3.14 cents a pound. 32 Exports of refined sugar soon fell to a trickle, aggravating the price squeeze on the industry. 33

The hope of developing a large export market to augment the insufficient domestic demand having been disappointed, the small, inland refiners began turning to other tactics in their desperate struggle for survival. It was at this time that complaints of adulterated sugar first were heard. 34 Some of the refiners began mixing glucose made from corn syrup with their regular refinery products. 35 Since glucose was a much cheaper product than refined sugar, this amounted, in effect, to a disguised price increase. But such tactics

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28 Brown, Revised Analysis of the Sugar Question, p. 16. This, as well as all other figures on American exports during this period, must be viewed with a certain caution. Many of the figures not only contradict themselves but also fly in the face of other well-known facts.


32 Brown, Revised Analysis of the Sugar Question, p. 18.


34 Brown, Revised Analysis of the Sugar Question, p. 16.

offered no more than temporary relief to a few refiners. More drastic remedies were required.

The small, inland refiners soon began a determined effort to force all their rivals in New York to agree to a price-fixing scheme whereby the margin between raw and refined sugar would be maintained at 2¼ cents a pound,\(^{36}\) for by 1877 the margin had fallen below 1½ cents a pound.\(^{37}\) However, the larger refiners, those whose plants were located on the water’s edge, refused to go along with the scheme. Though there were no more than half a dozen of these refineries throughout the country, they produced 1.2 billion pounds of sugar annually, or three-fourths of the entire U.S. output.\(^{38}\) Because of their locations and the more efficient refining methods they employed they were able to earn a return on their capital, even at the low margin then prevailing. On the other hand, any scheme to maintain prices would of necessity require a drastic curtailment of their output. And since these refineries embodied such a large capital investment, especially in comparison with the other plants, such a curtailment would lead to a disproportionate increase in their per unit overhead costs. It was for these reasons that the larger members of the industry resisted the price-fixing scheme.

More and more the struggle became one between these major firms and the small, inland refineries. When the former balked at the price-fixing scheme, the other members of the industry sought to bring pressure on them in other ways. “After the failure to establish a downright monopoly or combination as they proposed . . . ,” said Donner, “an effort [was] made in the Board of Underwriters and the fire-insurance offices to enforce a cessation of all night-work at the refineries by the withdrawal of the insurances.” Since the destruction of refineries by fire was a frequent occurrence, this seemed to be a justifiable action, even if it did lead to a reduction in output. But then it was shown “that no refinery had ever burned down during, but always after working hours,”\(^{39}\) and the insurance companies reversed their stand.

When this gambit failed, the small, inland refiners tried another. “A little later,” Donner explained, “a deliberate attempt was made by some members of the opposition, who held positions as bank presidents or directors, to enforce reduced work through the destruction of the credit of their opponents, thus preventing these firms from

\(^{36}\) Donner, letter to the *New York Evening Post*, p. 4.


\(^{38}\) T. Havemeyer, *Letters to Tucker and Carlisle*, p. 3.

\(^{39}\) Donner, letter to the *New York Evening Post*, p. 4.
obtaining the required amount of raw material.” In other words, the threat of being unable to finance the importation of cane from Cuba was used to try to force the larger refiners to agree to a price-fixing scheme.

This move, however, had an effect quite different from what had been intended. Denied access to local capital, the major refiners had no choice but to turn “to foreign credits, and as these could only be used in the form of drafts against shipments, it forced them into importations for their own account, and thus directly injured the importing merchants, who until then had this branch entirely in their own hands.” The possibility that the major refiners in deciding to do away with the services of importers were also motivated by other factors was later indicated by Theodore Havemeyer. “The refiners who commanded capital enough [to import] their own sugar wholly or in part,” he said, “... not only saved the commission which would have been paid to the importer, but also sundries, such as dockage, storage, insurance, loss of interest on capital, etc.” Havemeyer estimated these savings to be equal to approximately an eighth of a cent a pound.

This bypassing of the importing merchants not only put the small, inland firms at a greater disadvantage but also made active opponents of many of the merchants. When, as a next step, the small, inland firms began charging fraud against the public revenues, these importing merchants quickly took up the cry. They also supported the demands that no more sugar be permitted entrance at refiners’ private wharves and that a uniform tariff be levied on all unrefined sugars, for these demands, if adopted by the government, would have re-established the business on its former basis. Only high-grade sugars, which all refiners were capable of processing equally well, would be imported, and these high-grade sugars would have to go through the regular customs house, thus returning control of the import trade to the same class of merchants which had held it previously, and eliminating whatever cost advantage the refineries located along the water’s edge might have. This fight over the sugar tariff was to continue for many years, being waged before congressional committees, at public meetings, in the courts, and through the public prints.

The major refiners were led by Theodore Havemeyer, who, along with his brother Henry, held an interest in three of the nation’s largest sugar houses. “... Firms like my own,” he said, “which have been in

40 Ibid.
41 T. Havemeyer, Letters to Tucker and Carlisle, pp. 5–6.
existence for three-quarters of a century, and upon whose name the shadow of a stain has never rested, have been privately and publicly maligned, and for what reason?" Simply because, he told a congressional group considering changes in the sugar tariff in 1880, they had used the profits from their businesses to make their plants more efficient. "Many refiners," he said, "did not look at things in the same light. . . . [S]ome of them, situated in the heart of the city, were indisposed to seek other locations where savings in manufacture could be effected; others [were] unwilling to adopt the new methods of refining necessary for the large production of yellow [that is, the cheaper grade] sugars. . . . It is to these causes, and not to the frauds, . . . that the withdrawal of many refiners from business is really to be attributed."42

The other refiners also were led by members of the Havemeyer family—Hector and William, second cousins to Theodore and Henry. This branch of the family had re-entered the sugar business in 1870, purchasing a refinery located on a waterfront site, at Jersey City, New Jersey. Later, a second plant, located along the Brooklyn waterfront, was acquired.43 Neither refinery, however, was equipped to process the lower-grade sugars, and it was this which led Hector and William to advocate a uniform duty on raw sugar. Yet seldom were their voices actually heard in support of such a measure. Preoccupied by their many investments in other fields, they left the lobbying for a change in the tariff laws to their associates in the sugar refining business, Edward P. Eastwick and John E. Searles, Jr.44 The former was a veteran refiner, the latter, a young man of forty who was then in the process of reorganizing Hector’s two previously independent refineries into the Havemeyer Sugar Refining Company.45

In testimony before the House Ways and Means Committee, Eastwick emphasized not his firm’s inability to process the lower grades of sugar but rather the difficulty of preventing fraud under the existing system of levying tariffs. The various private wharves, he pointed out, had only a single customs inspector assigned to them, and all that was necessary to have incoming cargoes certified as being lower in grade than they actually were was to win that inspector’s friendship. "The

42 Ibid., p. 7.
44 See John E. Searles, Jr., et al., Memorial to the Committee on Ways and Means on the Sugar Tariff.
45 See the obituary for Searles in the New York Times, October 25, 1908.
business of sugar refining has been so far improved and the margin for profit so greatly reduced,” said Eastwick, “that a very slight discrimination in favor of one importer at the expense of another must prove disastrous to the party discriminated against.” To Eastwick this was such an important consideration that even though his own firm was located on the water’s edge he preferred to see the system of private docks abolished rather than have the current method of collecting sugar duties retained. Far more preferable in his eyes, however, would be a single tariff rate on all grades of unrefined sugar.  

But a uniform tariff on sugar, Theodore Havemeyer pointed out with telling effect to the same committee, would discriminate against the lower-grade sugars, once more driving them from the American market, since on an ad valorem basis they would be paying a higher duty. If, to prevent the loss of government revenues, it was necessary to change the tariff on sugar in any way, Havemeyer preferred to see the Dutch standard replaced by the polariscope test. The latter remedy, however, was opposed by the smaller refiners, who continued to press Congress—to no avail, as it turned out—for a uniform sugar tariff. Bribery of congressmen was charged, but the fact was that all tariff legislation, not just that relevant to sugar, was hopelessly stymied by the inability of the House and Senate to agree on any single measure.

The fact that the tariff remained unchanged amounted, in effect, to a victory for the forces led by Theodore Havemeyer. This victory brought little rejoicing, however, for the underlying problem—the disequilibrium between supply and demand—had not been solved. As the New York City Chamber of Commerce noted in its 1879 report, “It would seem, judging from the mortality that continues to attend sugar refining establishments, several in this and other cities having closed last year, that the prosecution of this business is at-

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46 Searles et al., Memorial, p. 35.  
47 Wells, for example, and many congressmen were greatly impressed by this argument; see Wells, The Sugar Industry and the Tariff.  
48 T. Havemeyer, Letters to Tucker and Carlisle, p. 15.  
50 Meanwhile, Treasury officials, in an effort to close a proven loophole, began ordering the polariscope test in cases where discoloration of sugar was suspected. Although the Supreme Court was eventually to declare this action illegal (Merritt v. Welch), it did momentarily stem the losses in revenue, bringing protests from all refiners, large and small (New York Times, February 15, 1881).
tended with great hazard—and yet the quantity of sugar year by year steadily increases.”

The better-situated, better-equipped refineries were still able to earn a respectable return on invested capital, but now they were beginning to find the severe competition increasingly unsuited to their own best interests. Most of the firms that were susceptible to competitive pressure had long since quit the industry; those marginal firms which still remained showed few signs of folding. The latter, whenever the margin between raw and refined sugar fell below their actual costs of production, simply shut down their refineries and waited until the margin rose again. As long as the plants themselves had no value except as scrap, and as long as no additional outlay was required to keep them running, they could continue in this fashion indefinitely.

Moreover, the price in a competitive industry such as sugar refining was at this time generally determined by whichever firm was willing to sell at the lowest price. In other words, the price was determined not infrequently by the marginal enterprises seeking to retain their foothold in the industry. As long as they were willing to supply the market at the quoted price, the price could rise no higher. Thus the tendency of these firms to resume production whenever the margin rose even slightly above a certain point served as a brake on the price level for the entire sugar refining industry. Production continued to expand, but the area of profitable operation narrowed. By 1880 the average margin between raw and refined sugar had fallen to 1.4 cents a pound. It was for this reason that in the spring of 1880, when it became clear that Congress was not going to act on the tariff that year, the two opposing groups within the industry closed ranks in an effort to limit production by agreement.

As pooling arrangements go, this was a fairly sophisticated one. At a meeting held on June 1 it was decided that each firm would pay into a common fund one cent for each pound of sugar it refined. The fund was to be divided at the end of each week among the various parties to the agreement according to the melting capacity of each, the latter figure being determined by taking the largest amount of raw sugar melted in any four consecutive weeks prior to the agreement. An executive committee, including Henry and William Have-meyer, was appointed to administer the pool, and refiners were to

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52 See Appendix D of this volume.
EMERGENCE OF OLIGOPOLY

submit to it daily reports on their meltings. The committee also was given the power to close down certain selected refineries if the price of refined sugar fell below a certain figure. The agreement, signed by most of the refiners in New York, Boston, and Philadelphia, was to last for one year, beginning June 15.  

The fatal weakness of this and all similar pools was that the agreements which established them could not be enforced in any court of law. In New York the governing cases were quite explicit on this point. An 1839 decision had declared: “Contracts in restraint of trade are, for the most part, contrary to sound policy and are consequently held void. This is the general rule. There may be cases where the contract is neither injurious to the public nor the obliger, and then the law makes an exception. . . . [But] the general presumption is against all contracts in restraint of trade.” In subsequent decisions the New York courts had specifically refused to uphold various pooling arrangements. Other courts in other states had done the same. 

Although in periods of general economic depression the courts tended to take a more tolerant attitude toward such combinations, the weight of judicial opinion throughout the country was clearly against compelling the parties to pooling agreements to abide by them. Denied the protection of the law, these pooling agreements would inevitably break down. In order to force prices up to the desired level, production had to be curtailed; but this had the effect of increasing a firm’s per unit costs. If a firm were to violate the pooling agreement, even just slightly, it would be able not only to take advantage of the resulting economies of scale but also to sell the extra output at the artificially higher price. The incentive to cheat was so great that eventually some firm would violate the agreement. 

Although the exact details have been lost to history, this was essentially the fate that befell this first pool in the sugar refining industry. When, a little over a year later, another attempt was made to limit production artificially, the refiners did not even bother to put the agreement down in writing. Reporting an eighth-of-a-cent-a-pound increase in the price of refined sugar, Bradstreet’s Journal attributed the rise to the action of three leading refining firms, including Havemeyer & Elder, “who induced the smaller refiners to join them in a

54 Ibid.
55 Chappell v. Brockway.
56 Hooker v. Vandeater; Stanton v. Allen.
57 See India Bagging Association v. Kock.
58 Thomas S. Berry, “The Effect of Business Conditions on Early Judicial Decisions Concerning Restraint on Trade.”
verbal agreement, no articles being signed, to curtail the production of their refineries one-third until there is an improvement in the demand. . . .” The lack of success which even this less intricate scheme was to enjoy was indicated by Bradstreet's added note that “the refiners of Boston and Philadelphia have refused to join these monopolists in their efforts to advance prices.”59

Unexpectedly, however, fate intervened to reduce the supply of refined sugar far more effectively than any group of men could have done. On the night of January 9, 1882, the Havemeyer & Elder refinery, which produced nearly three-fourths of the nation's hard sugars, burned to the ground.60 As a result, the downward pressure on prices eased somewhat. In fact, during the next twelve months the average margin between raw and refined sugar rose slightly, from 1.416 to 1.437 cents a pound.61 In that year also, the Brooklyn Sugar Refining Company earned a $500,000 profit on its $1.2 million investment, its largest return in several years.62

But the relief from the severe price competition proved only temporary. The Havemeyers, Theodore and Henry, began immediately to rebuild their refinery, though not without travail. “The cost exceeded the early estimates,” the family historian has noted, “and as a result the entire financial resources of the family were needed.”63

When the new Havemeyer & Elder refinery was completed eighteen months later, Theodore and Henry owned the largest, most efficient sugar house in the world. It was capable of melting more than three million pounds of raw sugar daily,64 twice as much as its next-largest competitor,65 at an average cost (not counting capital) of 0.44 of a cent a pound.66 When this added output began reaching the market, the margin between raw and refined sugar once more resumed its downward path. It fell to 1.032 cents a pound in 1883, then to 0.923 of a cent a pound the following year, and to 0.712 of a cent a pound the year after that.67 Even at those low margins, because its costs were so low, the Havemeyer & Elder refinery was able to earn

61 See Appendix D of this volume.
63 H. Havemeyer, The Havemeyer Family, pp. 67-68.
64 United States v. American Sugar Refining Co. et al., pretrial testimony, 1912, pp. 303-4.
65 Ibid., pp. 308-13.
66 Ibid., p. 320.
67 See Appendix D of this volume.
a profit. But, as Henry Havemeyer later told a congressional committee, "I do not believe anyone else [could]."

Winter had always been the slack season for the East Coast refineries. By that time of year sugar was no longer needed for preserving fruits, and the Louisiana crop was in the process of being marketed. Even the most efficient refineries hoped for nothing more than to break even during those months. But after the Havemeyer & Elder refinery was rebuilt, Julius A. Stursberg, who directed the manufacturing end of the business for the Brooklyn Sugar Refining Company, later testified, "the loss in the winter months became greater from year to year." Whereas, before, the losses had usually lasted only until the first of March, they now began to extend into June. This was because, William Havemeyer said, "the refineries would all insist upon working full. No refinery wanted to [cut back], because the moment you reduce production you increase the cost." And now that the much larger output of the new Havemeyer & Elder refinery was being added to that of the other refineries, it took longer for the heavy demand of the summer months to catch up with the excess supply of the winter.

A six-week strike by New York refinery employees in the winter of 1885-86 again brought temporary relief from the downward pressure on margins, but by summer the various sugar houses found themselves as hard pressed as ever. To make matters worse, the secretary of the treasury in November reduced the drawback allowance by nearly 10 per cent, cutting off virtually all exports. Although

69 United States v. American Sugar Refining Co. et al., pretrial testimony, 1912, p. 552.
70 Ibid., p. 4543.
71 Ibid., pp. 4679-80.
72 As the New York City Chamber of Commerce noted in reporting a decline in American exports of refined sugar in 1886:

This falling off has been due entirely to the reduction in the drawback allowed by the Government, which took effect November 1st, and practically put a stop to this branch of the sugar trade. For several years the Government has been urged to make this reduction, it being claimed that the allowance of $2.82 per one hundred pounds was in reality equal to a bounty of about ¼ cent per pound, and hence the enormous increase that had been witnessed in such exports, which were principally absorbed by Great Britain. British refiners complained of the injustice, and were constant in their protests against the operation of this law, but it was not until October that the Treasury Department took any action, and then it was to reduce the drawback allowance to $2.60 per one hundred pounds, which was then announced as a provisional measure, as,
the amount of refined sugar sold overseas had not been substantial—and what was sold had to be sold at below cost—the secretary’s order was a severe blow. As Henry Havemeyer later explained, these sales in foreign markets enabled the refiners to keep their plants operating at more efficient levels of output. “. . . The exportation diminished the cost of my work,” he said, “and in that sense produced a profit.”

That year, 1886, the margin between raw and refined sugar was 0.781 of a cent a pound—higher than the previous year’s margin but still not high enough to enable most of the refiners to earn what they considered a sufficient return on their investment. Joe Moller, the head of Moller & Sierck, complained to a colleague that “there was not much money in sugar refining” any more, that “business was bad.” “Why don’t you get out?” he was asked. “Well,” Moller explained, “we are still making 5 or 6 per cent [return on our money], and if I go out I will only get 4.”

The refiners were thus faced, on the one hand, by unremunerative margins and, on the other, by the fact that they could transfer their capital to other branches of industry only at a considerable loss. Desperate to escape this predicament, they turned once again to the only other remedy they knew—an agreement to control prices and output. A meeting of all the leading refiners was called, and at that meeting a committee, consisting of Searles, William Havemeyer, and William Dick of Dick & Meyer, was appointed “to see what could be done.” The committee recommended closing down all the refineries for ten days—not just those in the New York area, but those in the

after investigation, it might be found necessary to make a still further reduction, in order to carry out fairly the spirit of the law. The drawback was never intended to be a source of direct profit to the shipper, but was for the purpose of reimbursing upon such sugar as was exported the duty which the Government had collected. Improved methods and greater economy in the process of refining had made it possible to obtain better results, so that the cheaper the cost of refining, the more profit was obtained from the drawback allowance. An adjustment that might have been fair and equitable fifteen or, even ten years ago, under new conditions became a source of profit, and hence the necessity for the reduction that has now taken place. The result has been a practical suspension of our export trade . . . [in refined sugar]. Annual Report, 1886–87, pt. 2, p. 13.

73 U.S. House Committee on Manufactures, Report on Trusts, p. 142. Although most of the exported sugar was accounted for by Havemeyer & Elder, the impact of the secretary’s order was nonetheless felt by the entire industry, since the sugar Havemeyer & Elder would otherwise have sold overseas was disposed of instead on the domestic market.

74 United States v. American Sugar Refining Co. et. al., pretrial testimony, 1912, p. 320.

75 Ibid., pp. 481–83.
other eastern seaboard cities as well. The other refiners then agreed to this plan.

But like all the previous agreements to limit production, this one was soon violated. Only a few of the refiners actually closed down their plants, William Havemeyer later testified, and "afterwards there was a red hot war." The trouble, as everyone realized, was that there was no way of holding a man to his word. What was needed, from the refiners' point of view, was a better method of bringing the various members of the industry together, some mechanism by which they could be compelled to abide by whatever was the majority's will. As the winter of 1886-87 passed, this need became even greater. The Brooklyn Sugar Refining Company, one of the most modern refineries in the United States, found itself losing $200,000 during the first six months of the year. Other firms found themselves in similar straits. From New Orleans and St. Louis came the plea that something be done about the narrowing margin between raw and refined sugar. This margin, noted the New York City Chamber of Commerce, "has fallen to the lowest point in thirty years, and is in reality the lowest on record since the present methods of refining . . . [sugar came into] general use."

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76 Ibid., pp. 482, 4570-71.
77 Ibid., p. 317. While all those who later testified before various investigative bodies placed the dates of this attempt to limit production at one or two years before the actual formation of the trust, Willett & Gray's Weekly Statistical Sugar Trade Journal, which was usually well informed on such matters, made no mention of any such efforts during either 1885 or 1886. However, it did record various attempts to limit production in 1883 and 1884. ... The production [of refined sugar has been] regulated by a combination of refiners, to the demand" (February 8, 1883). "Arrangements have been made for curtailing the production of refined to some extent . . ." (March 6, 1884). Whether or not these were the same efforts to limit production cannot be ascertained.
78 United States v. American Sugar Refining Co. et al., pretrial testimony, 1912, p. 482.
79 Ibid., pp. 552-54.
80 William Agar, in 1886 a director of the Planters Sugar Refining Company of New Orleans, later testified that on his way to New York in the winter of 1886-87 he had stopped off in St. Louis and seen R. J. Lockland, the president of a local bank and an influential director of the Belcher Sugar Refinery located in that city. Lockland, according to Agar, urged him to see Henry O. Havemeyer while he was in New York and suggest a consolidation of the sugar industry. Lockland told Agar to point out that a similar combination by the producers of steel rails had brought an end to the depressed prices in that industry. "We are losing money now in sugar," Lockland is reported to have said, "and I do not see why we do not come together. You suggest that from me and give [Havemeyer] my name" (ibid., p. 7479).
Sugar refining was still a competitive industry, behaving as one would expect a competitive industry to behave. In fact, it had become what some economists would call “perfectly” competitive\(^\text{82}\)—that is, the various retail sugar brokers knew almost at once when a change took place in the price of refined sugar. This improved communication was due to the growth of the telegraph and cable, which created a single national market for refined sugar even though many of the buyers were located in distant cities.\(^\text{83}\) To be sure of obtaining the latest quotations on both raw and refined sugar, a broker had simply to subscribe to Willett & Gray's statistical sugar-reporting service. This service, the offshoot of the two partners’ own brokerage business, made it possible for a refiner to know instantly when a rival reduced his price,\(^\text{84}\) and this knowledge helped to make the price competition during the winter of 1886-87 that much more severe.

Finally, alarmed by the continued decline in margins, William Havemeyer told Searles that he had better try to bring the various refiners together.\(^\text{85}\) Searles, a banker with interests in many fields, had been one of the principal figures behind the earlier efforts to effect some sort of combination. This time, however, he went about his task with a different scheme in mind, one patterned after the new form of industrial organization which only recently had been applied by John D. Rockefeller to the petroleum industry.

\(^{82}\) “Economists sometimes distinguish between ‘pure’ and ‘perfect’ competition. . . . [Besides the conditions] necessary for pure competition to exist [, p]erfect competition requires that one more condition be met. The additional condition is that all economic units possess complete knowledge of the economy. All discrepancies in prices quoted by sellers will be known immediately and buyers will buy at the lowest prices. This, of course, forces sellers charging higher prices to lower their prices immediately. . . . In the market for any particular product or resource, a single price will prevail” (Richard H. Leftwich, *The Price System and Resource Allocation*, p. 25). The distinction between pure and perfect competition can be traced back to Frank H. Knight, *Risk, Uncertainty and Profit*.


\(^{84}\) See the early issues of Willett & Gray’s *Weekly Statistical Sugar Trade Journal*; see also *United States v. American Sugar Refining Co. et al.*, pretrial testimony, 1912, p. 4675.