THE SHORT HAPPY LIFE
OF PETROLEUM IN PITTSBURGH:
A Paradox in Industrial History

By A. Michael Sulman*

The nation's first commercially meaningful petroleum deposits were discovered in northwestern Pennsylvania during the initial boom of American industrialization. Pittsburgh was the industrial area closest to the location of the oil discoveries. Within a few months after the first wells were drilled, Pittsburgh became the world's largest producer of refined petroleum and the center of an internationally important petroleum security exchange.

The Pennsylvania oil region retained a virtual monopoly over the production of crude oil in the United States for over thirty years. It would seem that the natural economic consequences of geography would have assured Pittsburgh's importance as a refining center throughout this period. Reality and geography, however, went in opposite directions.

Within a decade after the vast oil deposits were discovered, the capital of the petroleum industry was no longer in the city of its birth. Cleveland, Ohio, a community of fewer people and less industrialization, took the dominating position in the industry away from Pittsburgh. This development occurred despite the fact that Cleveland was farther than Pittsburgh from both the location of the crude oil and the major markets for refined petroleum.

Oil refining, of a sort, began in the Pittsburgh area long before Edwin L. Drake drilled his famous well in Titusville, Pennsylvania, in 1859. Professor Paul H. Giddens, the historian of the early petroleum industry, has traced the use of petroleum products in Pittsburgh as far back as 1791. By 1828, enough was known

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*Mr. Sulman wrote this article in the course of his graduate work at the University of Pittsburgh.

1Paul H. Giddens, The Beginnings of the Petroleum Industry (Harrisburg: Pennsylvania Historical Commission, 1941), chapters 1 and 2.
about the properties of petroleum to stimulate the suggestion in a Pittsburgh newspaper that oil be used for street lighting. Nothing resulted from this extremely precocious idea. The public continued to regard “rock oil” as merely an ointment with uncertain medicinal qualities.²

The first real commercial exploitation of petroleum in the United States was the result of the efforts of Samuel M. Kier, a native of Pittsburgh.³ Kier was a salt refiner who, in 1840, found oil seeping into his salt wells along the Allegheny River. Calling the substance “Kier’s Petroleum or Rock Oil,” he marketed it as a wonder drug which would restore youth, make the lame walk and the blind see, and end pain of all kinds. Even with such intensive sales techniques, Kier could not dispose of the annoying oil which kept fouling up his salt-producing equipment.⁴

After an arduous search for some practical use for petroleum Kier developed in 1845 a lamp which would burn distilled crude oil. Kier then went into the petroleum refining business, purchasing crude oil from salt producers in the area who found it constantly disrupting their operations.⁵

It was the event of August 27, 1859, which caused the almost instantaneous conversion of a novelty into an essential commodity. On that date, Colonel Edwin L. Drake struck vast deposits of crude oil 100 miles north of Pittsburgh and 69.5 feet into the ground.⁶ Drake immediately contacted Kier; and a new industry came into being, the drilling, refining, and selling of petroleum. Within a year after Drake’s discovery, there were seven refineries in the Pittsburgh area and markets for the refined oil in all of the major cities of America and Europe.

²Paul H. Giddens, “Pittsburgh and the Beginnings of the Petroleum Industry to 1866,” Western Pennsylvania Historical Magazine, XXIV (September, 1941), 139.
The location of this new industry in Pittsburgh was the natural result of the city's geographic location and its already existing status of industrialization. Pittsburgh had a population of about 50,000 people, and the rest of Allegheny County contained another 120,000. The area had already developed a significant iron industry due, largely, to its strategic geographic location and the availability of coal virtually within the city. Before 1860, Pittsburgh was an extremely important channel of migration and transportation between the Atlantic seaboard and the trans-Appalachian West. Its fifty glass factories accounted for over one-third of the entire American glass production. The area's rolling mills and iron foundries produced half of America's iron output. Pittsburghers were also involved in such diversified activities as potteries, cotton and woolen mills, plowshare factories, shipyards, ordnance works, and brass foundries.

The new petroleum industry was an important and fortunate development for Pittsburgh. The outbreak of the Civil War disrupted the city's commercial and industrial activities to the point of virtual paralysis. Large-scale unemployment occurred in the iron, glass, and textile industries. Banking houses were all but closed down. The oil industry came to the rescue by employing large amounts of idle labor and capital.

Immediately after Drake's discovery, refineries sprouted up throughout the Pittsburgh area. At the end of 1861, Kier's refinery was only one of thirty-five. By the summer of 1862, the petroleum business was challenging the supremacy of Pittsburgh's iron and glass industry.

Oil captured the imagination of the people of the Pittsburgh area. A popular song appeared which well reflected the thrill and
excitement generated by Drake's strike. Many looked forward to making millions from investments in the oil fields and oil refineries:

The Yankees boast that they make clocks that "just beat all creation."
They never made one could keep time with our great speculation,
Our stocks like clocks go with a spring, wind up and down again;
But all our strikes are sure to cause— oil on the brain!

CHORUS: Stock's par, stock's up, then on the wane;
Everybody's troubled with oil on the brain.

The lawyers, doctors, hatters, clerks, industrious and lazy,
Have put their money all in stocks, in fact have gone oil crazy.
They'd better stick to briefs and pills, hot irons, ink and pen,
Or they will kick the bucket from oil on the brain.\(^2\)

The newspapers of Pittsburgh saw the significance of the petroleum industry from the date of its birth. As early as 1861, the Pittsburgh Post published editorials like the following:

No one who does not make an effort to ascertain for himself can conceive the gigantic proportion which the business of producing petroleum has assumed or the vast benefit our city is reaping and will continue to reap from this new and important branch of trade.

. . . There is a large demand by refiners, who are driving a profitable business and erecting new refineries.

. . . Twice the number of refineries now in operation in this vicinity . . . would not supply the demand.

This trade will ere long be a leading feature in our city and we should take every measure to promote and encourage it.\(^2\)

\(^1\) Quoted in George Swetnam, *Where Else but Pittsburgh!* (Pittsburgh: Davis & Warde, 1958), pp. 164-165.
\(^2\) *Pittsburgh Post*, December 18, 1861.
By 1863, all of Pittsburgh's major daily newspapers had set aside special columns in their financial or editorial sections for developments in the oil industry.

In just a few months after the oil fields were opened, the Pittsburgh area had become the world's largest oil refining center. It had also become the first exchange center for petroleum securities. In 1864, George A. Thurston, the most prolific chronicler of late nineteenth-century Pittsburgh history, formally opened the world's first oil stock exchange. Pittsburgh had been in a speculative fever since Drake's discovery, and Thurston's oil stock auction room was the scene of the wildest speculation. Although active only in the evenings, the Pittsburgh petroleum exchanges were always thronged with excited people who paid a twenty-five cent admission fee just to watch the transactions. Thurston's exchange alone would often see 25,000 shares of stock change hands in an evening.13

The new industry provided the city of Pittsburgh with an important source of revenue. Starting in the autumn of 1861, the municipal government levied taxes on all of the oil received and stored in the city, justifying the tax by citing the very real fire danger emanating from petroleum stored in wooden barrels. The city also derived an income from each barrel of petroleum measured in Pittsburgh by the city gauger. As a result, in 1865 alone the city of Pittsburgh received from taxes on oil almost $31,000, or one-twentieth of its entire municipal revenue.14

The prediction made in the 1861 newspaper editorial was thus quick to come true. Within three years after Drake and Kier got together, $17,000,000 worth of oil had been refined in Pittsburgh. By 1863, annual production was almost equal to the total past production of petroleum. The Pittsburgh area refineries were handling two-thirds of the entire crude oil production in the nation and were expanding rapidly.15 By the middle of the decade,
fifty-eight refineries had been established employing seven hundred workmen at an annual salary of over $500,000.16

Pittsburgh had at its disposal all of the elements needed to develop and dominate the refining industry, or so it appeared. Geographic location; the supply of labor, transportation facilities, and capital; the abundance of cheap coal and chemicals; the existence of satellite industries; and the availability of large banking and credit facilities all seemed to combine toward the formation of a major petroleum center in the Pittsburgh area.

As early as 1861, however, the Pittsburgh Press saw the correlation between transportation and Pittsburgh's future in the petroleum industry and demanded more adequate transportation facilities.17 Transportation for the Pittsburgh refineries had two distinct phases. The first phase, getting the crude oil from the wells to the refineries, was initially solved by Oil Creek and the Allegheny River, which extended directly from the drilling areas into the city. This water route was perhaps the most important single factor in locating the petroleum refining industry in the Pittsburgh area.

In the spring of 1860, the steamboat Venango carried the first load of crude oil down the Allegheny to Pittsburgh. Within two years, fifteen steamboats and over a hundred flatboats were bringing to the Pittsburgh refineries 1,300 barrels of crude oil daily. Jacob J. Vandergrift of Pittsburgh in 1861 developed a clever method of bringing the oil down the river in bulk. Through specially constructed flatboats, shippers avoided the costly and time consuming barrelling of the crude oil. The boats received the oil in bulk by way of pumps and pipelines. Each boat was capable of carrying over 160 barrels.18

As improved as bulk water transportation was, it was far from satisfactory. The Allegheny River system was either frozen or too shallow for six months of the year to permit bulk transportation

16 Thurston, Pittsburgh and Allegheny, pp. 206 ff.  
17 Pittsburgh Post, December 18, 1861.  
from the fields to the refineries without transhipment.\textsuperscript{19} Railroads were the only alternative.

The Pittsburgh area did not receive a direct all-rail connection with the oil regions until 1867. In that year, the Allegheny Valley Railroad was finally completed with the financial assistance of municipalities in the Pittsburgh area. By 1868, the new railroad line was already being acquired by the Pennsylvania Railroad Company.

During the 1860's, a system of pipelines had developed within the oil regions. It permitted the cheap and efficient transportation of crude oil from the wells to newly developed tank cars. As a result, rail transportation soon became available at one-third the cost of the average annual charges for shipping crude oil to Pittsburgh by water.\textsuperscript{20}

The oil region to refinery phase of Pittsburgh's transportation demands was relatively insignificant when compared with the problem of getting the refined oil to the East coast, where all of the petroleum exporters and most of the domestic consumers were located.

Pittsburgh had only one rail outlet to the East, the Pennsylvania Railroad. Soon after the end of the Civil War, an attempt was made to avoid dependency on the Pennsylvania by shipping refined oil down the Ohio River to Huntingdon, West Virginia. There the petroleum would be loaded into the cars of the Chesapeake and Ohio Railroad to be shipped to Richmond, Virginia. From Richmond it would have to be sent north to Philadelphia and New York. This extremely circuitous route was justified by the nature of the relationship between the Pennsylvania Railroad Company and the Pittsburgh shippers, a relationship that will be discussed in detail below. But this alternative to the Pennsylvania system failed to meet the demands of the petroleum industry's requirements for the rapid, large-scale transportation of its products.\textsuperscript{21}

On November 29, 1852, the first through rail transportation between Pittsburgh and Philadelphia was completed by the Pennsylvania Railroad Company. By 1858, the route was fully double tracked. Before the decade of the 1850's was over, the traffic on

\textsuperscript{20} Pittsburgh \textit{Evening Chronicle}, January 3, 1868.
the Pennsylvania was so heavy to and from Pittsburgh that the company claimed a severe shortage of rolling stock to handle the Pittsburgh demands.22

The nature of the Pittsburgh traffic was reflected in the railroad's annual report for 1860. Freight accounted for more than two-thirds of the company's revenue. The principal commodities moving from Pittsburgh to Philadelphia, in order of tonnage, were livestock, flour, salt, meats and fish, grains, cotton, and whiskey. Of the goods shipped from Philadelphia to Pittsburgh, dry goods accounted for one-third of the total, followed by groceries, drugs and dye stuffs, hardware, and potash.22

The Pennsylvania Railroad Company was incorporated in 1846. As early as 1847, the management of the railroad looked upon the line to Pittsburgh as merely a portion of a larger line to Ohio and the west. J. Edgar Thomson and Thomas A. Scott built the railroad with an eye towards the development of Cincinnati and not Pittsburgh.24 Before the 1850's were over, Pittsburgh was just a midway point in the Pennsylvania's Western Division. In 1856, the Cleveland and Pittsburgh Railroad was purchased by the Pennsylvania. Three years later, the acquisition of the Pittsburgh, Fort Wayne and Chicago Railroad extended the Pennsylvania system to Chicago.25

As soon as the lines to the west of Pittsburgh were integrated into the expanding Pennsylvania system, a pattern of consistent rate discrimination against Pittsburgh shippers emerged. The legislation that established the railroad gave it virtually unprecedented latitude to determine its freight and passenger rates arbitrarily.26 The railroad used this latitude to the severe detriment of Pittsburgh shippers who were engaged in competition with their industrial and commercial counterparts in other areas, especially Buffalo and Cleveland.27

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23 Ibid., pp. 308-309.
24 Ibid., pp. 74-78.
25 Ibid., pp. 81, 88-89.
Professor Lewis Hartz in his *Economic Policy and Democratic Thought, Pennsylvania, 1776-1860*, suggests that the severely discriminatory rate policy of the Pennsylvania Railroad against the shippers of the Pittsburgh area was a crude technique for striking back against the antipathy on the part of western Pennsylvanians towards the railroad.\(^2\)

Part of this antagonism was apparently due to nothing more than inter-city rivalry. The Pennsylvania Railroad Company was initiated and controlled by Philadelphians for the benefit of Philadelphia.\(^9\) There is, however, no evidence indicating that the rate discrimination against Pittsburgh shippers was motivated by a desire to assist Philadelphia economic interests at the expense of Pittsburgh.

Antagonism towards the management of the railroad on the part of Pittsburgh’s commercial and industrial interests seems to have existed from the time of the Pennsylvania’s inception in 1846. Pittsburgh investors, private, institutional, and governmental, were already interested in the success of other trunk lines, principally the Baltimore and Ohio Railroad. They saw the Pennsylvania as a Philadelphia interest competing for legislative privileges, track and terminal locations, and private and public funds. Both the city of Pittsburgh and Allegheny County had almost two million dollars invested in the securities of five other proposed railroads. The Pennsylvania Railroad was looked on as a competitive threat which could weaken the value of this investment.\(^3\)

The city of Pittsburgh purchased none of the Pennsylvania’s original security offerings. Allegheny City did subscribe to one million dollars worth of the initial stock issue but under public pressure soon cancelled the subscription. Other municipalities in Allegheny County collectively purchased over four million dollars worth of Pennsylvania Railroad Company capital stock.\(^8\) Instead of creating a common interest in the success of the railroad, this subscription caused intense hostility on the part of many western Pennsylvanians towards the company, hostility that was only

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\(^9\) *Burgess and Kennedy, History of the Pennsylvania Railroad*, pp. 155-156.

\(^3\) Henry O. Evans, “Notes on Pittsburgh Transportation Prior to 1890,” *Western Pennsylvania Historical Magazine*, XXIV (September, 1941), 161-168.

\(^8\) *Burgess and Kennedy, History of the Pennsylvania Railroad*, p. 62.
intensified by the discriminatory rate policies firmly established in the following decade.

The Allegheny County subscription was paid for with the proceeds of sale of municipal bonds which were to be liquidated by the dividends received from the railroad stock. During the early 1850's, the railroad was unable to pay any dividends on its common stock. The indebted municipalities of Allegheny County were thus unable to meet the interest payments on their new bond issues. To avoid a compensating real estate tax increase, the taxpayers of the county demanded the repudiation of the bonded indebtedness. They blamed the railroad, of course, for their community's financial difficulties. Public opinion against the Pennsylvania was so strong that from 1846 to 1861 every legislator from Allegheny County, notwithstanding political party or faction, was elected on a pledge to vote against the financial interests of the Pennsylvania Railroad Company.32

In time Allegheny County's ownership of Pennsylvania Railroad stock would probably have generated some enthusiasm for the success of the area's only outlet to the East. During the Panic of 1857, however, the county lost all of its Pennsylvania stock and thus its interest in the earnings of the company.33

Perhaps the only economically justifiable reason for the railroad's rate discrimination is found in the fact that the railroad could exercise rate discrimination without suffering any apparent loss in freight revenues, since the already established Pittsburgh area shippers had no reasonable transportation alternatives. By the middle of the 1850's, railroads had become a transportation necessity, and Pittsburgh had only one railroad.

On June 10, 1858, the chairman of a committee of the Philadelphia Board of Trade was invited to explain to the membership of the Pittsburgh Board of Trade the reasons for the Pennsylvania Railroad's discriminatory rate policy. The Philadelphian candidly admitted the existence of the discrimination. He attempted to justify it with the contention that it was necessary to charge more for freight from Pittsburgh than from points farther west to enable the railroad to offset short profits earned in areas where the Pennsylvania had competition. He insisted

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that any lowering of the rates from Pittsburgh would literally force the railroad into bankruptcy. Pittsburgh shippers were thus compelled to subsidize the Pennsylvania's expansion into areas already served by trunk lines. Since these shippers had no alternatives to the Pennsylvania, a public utility enjoyed with virtually no public regulation the pricing benefits of an inelastic demand and a fully employed supply.

The impact of the Pennsylvania's rate-making technique upon Pittsburgh's petroleum industry was devastating. It resulted in the subordination of the Pittsburgh area's second most important industry to Cleveland within five years after Cleveland's first refinery was opened.

At first, the only demand of the Pittsburgh refiners upon their sole real outlet was a demand for more rolling stock. In the early 1860's, Cleveland had not yet started a refining industry, and Pittsburgh could not get refined petroleum to the East fast enough. There was even talk of reviving the old Pennsylvania canal system to move oil to the seaboard markets. Efforts were made to expedite the completion of the Pittsburgh and Connellsville Railroad, since the Pennsylvania Railroad's facilities were still inadequate to meet the needs of the oil trade. The Pittsburgh and Connellsville was eventually completed, but its completion came too late to avoid the effects to the oil industry of the Pennsylvania Railroad monopoly.

By 1867, the Pittsburgh refining industry was experiencing the consequences of two closely related realities: the development of the means by which the Pennsylvania Railroad could fully participate in the transportation of petroleum and still act in accordance with its already well established pattern of discrimination against Pittsburgh shippers, and the development of the oil refining industry in Cleveland.

The management of the Pennsylvania saw the profit potential of the oil industry as early as 1860. In 1861, they integrated the unfinished Philadelphia and Erie Railroad into the Pennsylvania system. The Philadelphia and Erie's acquisition and completion was first justified on the grounds that the new subsidiary would

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(1) increase the flow of goods in and out of Philadelphia, (2) pre-empt an excellent low mountain route from competition, (3) relieve pressure on the already fully employed “main line” to Pittsburgh, and (4) preclude the allegedly more costly necessity of adding a third track to the Pittsburgh line. The Pennsylvania soon added a new appeal to its arguments for additional investment capital and legislative authorization, the appeal of petroleum profits, an appeal that was highly successful. Within three years after the Philadelphia and Erie was made part of the Pennsylvania, the latter railroad controlled a direct all-rail route between the oil regions and the coast by the installation of only 143 miles of additional track. The Pennsylvania had thus established itself as a major petroleum carrier in the infancy of the industry and did so in a way that completely bypassed Pittsburgh, benefited the emerging refining industries in Philadelphia and New York City, and effectively competed with trunk lines operating through New York State. Since the Philadelphia-to-Pittsburgh “main line” was used to capacity before the advent of petroleum, the Pennsylvania Railroad sacrificed nothing by diverting as much petroleum traffic as possible to the Philadelphia and Erie route. The long standing antipathy towards the Pennsylvania on the part of the Pittsburgh area’s financial, industrial, and commercial interests gave the railroad’s officers little reason to feel obligated to protect an important Pittsburgh industry.

The second reality that the Pittsburgh area refiners had to cope with by 1867 was the development of Cleveland’s oil refining capacity. The petroleum industry existed in Pittsburgh in spite of railroad transportation. It existed and flourished in Cleveland because of railroad transportation.

Cleveland industrialists, including John D. Rockefeller, became interested in petroleum refining in the autumn of 1863. In that year, a branch of the Atlantic and Great Western Railroad was opened connecting the Ohio city with the Pennsylvania oil regions. In 1864, the Cleveland refiners were starting to benefit from a

Burgess and Kennedy, History of the Pennsylvania Railroad, pp. 161-162. For a complete discussion of the Philadelphia and Erie Railroad and its acquisition and completion by the Pennsylvania Railroad see Maybee, Railroad Competition, chapter 2.
market dividing agreement among the railroads serving the oil region. This agreement forced the Atlantic and Great Western to pursue the Cleveland market aggressively or remain out of the oil trade.\textsuperscript{38}

In 1865, the Pittsburgh area contained eighty-six oil refineries collectively capitalized at $21,610,000. At the same time, the Cleveland area had only three oil refineries with an aggregate capitalization of $930,000.\textsuperscript{39} Within two years, however, the Cleveland area’s production of refined petroleum was approximately the same as Pittsburgh’s.

From 1860 to 1870, the population of the Pittsburgh area, Allegheny County, was roughly twice that of the Cleveland area, Cuyahoga County.\textsuperscript{40} Since Pittsburgh was closer to the oil regions than Cleveland, and since Pittsburgh was located at the mouth of a continuous water route to the heart of the crude oil area, the refining industry naturally located itself in Pittsburgh. Yet when the industry was only eight years old, the late starting Cleveland area substantially equalled Pittsburgh’s production of refined petroleum. Two years later, Cleveland’s production surpassed Pittsburgh’s and established the city as the national refining center. This is clearly evident in the changes in the annual crude oil shipments to the two refining centers.

By 1867 Cleveland had several transportation alternatives in shipping petroleum to the coast. By starting shipment with either

\begin{itemize}
  \item \textsuperscript{38} Ibid., pp. 228-232.
  \item \textsuperscript{39} The Spectator (Venango, Pa.), February 22, 1865; Giddens, Pennsylvania Petroleum: A Documentary History, p. 263.
  \item \textsuperscript{40} The 1860 population figures from the U. S. Census Office, Eighth Census of the United States (Washington, D. C., 1864), are as follows:

<table>
<thead>
<tr>
<th>Allegheny County</th>
<th>Cuyahoga County</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Pittsburgh</td>
<td>49,217</td>
</tr>
<tr>
<td>City of Cleveland</td>
<td>43,417</td>
</tr>
</tbody>
</table>

The 1870 population figures from the U. S. Census Office, Ninth Census of the United States (Washington, D. C., 1972) are as follows:

<table>
<thead>
<tr>
<th>Allegheny County</th>
<th>Cuyahoga County</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Pittsburgh</td>
<td>86,076</td>
</tr>
<tr>
<td>City of Cleveland</td>
<td>92,829</td>
</tr>
</tbody>
</table>
\end{itemize}
Shipments of Pennsylvania Crude Oil

<table>
<thead>
<tr>
<th>Year</th>
<th>To Pittsburgh</th>
<th>To Cleveland</th>
</tr>
</thead>
<tbody>
<tr>
<td>1859</td>
<td>7,063</td>
<td>225,000</td>
</tr>
<tr>
<td>1862</td>
<td>170,000</td>
<td>268,000</td>
</tr>
<tr>
<td>1864</td>
<td>630,246</td>
<td>613,000</td>
</tr>
<tr>
<td>1865</td>
<td>1,253,396</td>
<td>693,100</td>
</tr>
<tr>
<td>1866</td>
<td>727,494</td>
<td>956,479</td>
</tr>
<tr>
<td>1867</td>
<td>1,062,227</td>
<td>1,121,700</td>
</tr>
<tr>
<td>1868</td>
<td>1,026,902</td>
<td>2,000,570</td>
</tr>
<tr>
<td>1869</td>
<td>1,039,422</td>
<td>1,500,000</td>
</tr>
</tbody>
</table>

the Lake Shore Railroad or the Atlantic and Great Western Railroad, the Cleveland refiners could choose from three trunk lines, the New York Central, the Erie, or the Pennsylvania’s Philadelphia and Erie. They also had the additional possibilities of shipping via Lake Erie, the Erie Canal, and the Hudson River; or of combining water with rail transportation.

The transportation situation for the Pittsburgh refiners was, obviously, in no way comparable. Competition among the railroads for the Cleveland petroleum business gave the Ohio refiners continuously reduced prices as their refining capacity increased. At the same time the Pittsburgh refiners were subject to the arbitrary determination of transportation costs by a railroad with interests of its own in opposition to those of Pittsburgh’s petroleum industry.

The reason that the production of the Cleveland refineries surpassed that in Pittsburgh by 1869 is thus quite simple. Cleveland enjoyed the benefits of competition among transportation alternatives. Pittsburgh suffered the detriments of no transportation alternatives. As a result, the Cleveland refiners paid substantially less for moving their products to market than Pittsburgh and were therefore able to offer those products for lower prices.

On January 30, 1867, the Pennsylvania House of Representatives was called on to investigate charges of railroad rate discrim-
A committee was appointed which reported back to the House on April 10, 1867. The report contained the following costs of transporting crude oil from the wells to the refineries:

**Average Shipping Rates for Crude Oil, 1866-1867**

*To Pittsburgh*

1. By the Allegheny River $1.50 per bbl.
2. By the Allegheny Valley Railroad .50 per bbl.

*To Cleveland*

1. By Lake Erie .75 per bbl.
2. By the Lake Shore Railroad .42 per bbl.

Cleveland's advantage over Pittsburgh in the cost of shipping the crude oil from the well regions to the refineries was modest when compared to its extreme competitive advantage in the cost of shipping refined petroleum to the seaboard markets. By 1867, the Pittsburgh refiners were paying to the Pennsylvania Railroad almost twice as much as the Cleveland refiners were paying to the Atlantic and Great Western to ship petroleum to the coast. Cleveland's competitive advantage over Pittsburgh caused the relocation of the center of the oil refining industry from the city of its birth to the geographically less favored Ohio city. The underlying cause of this relocation was the discriminatory rate schedule of the Pennsylvania Railroad.

The Pittsburgh refining industry responded to the Pennsylvania's rate policy with both negative and positive efforts. As a result of the demands of the newly formed Pittsburgh Petroleum Association, the protests of the Pittsburgh newspapers, and the pressure exerted on the politicians from western Pennsylvania, the General Judiciary Committee of the Pennsylvania Senate held a full-scale investigation of the Pennsylvania Railroad's rate-making methods. The oil industry phase of the investigation was held in Pittsburgh in October of 1867.

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The records of this investigation clearly reflect the extent of the railroad's discrimination against the Pittsburgh refining interests. A leader of the Pittsburgh Refiners Association testified that in 1867 it cost a Pittsburgh refiner $1.70 to ship one barrel of refined petroleum 355 miles to Philadelphia. At the same time, a Cleveland refiner could ship the same barrel of oil 629 miles to New York City for only $1.53. The Pittsburgh refiners were forced by the Pennsylvania Railroad to pay $.48 per barrel per hundred miles, while the Cleveland refiners were paying only $.26 per barrel per hundred miles.4

Another Pittsburgh refiner testified that the Pennsylvania Railroad was charging the same rate to ship petroleum 441 miles from the well regions to Philadelphia via the Philadelphia and Erie as it was charging to ship it 355 miles from Pittsburgh to Philadelphia.4 Other Pittsburgh oil men testified that transportation costs were forcing them to close down their refineries.

At these hearings, Tom Scott, the Pennsylvania's vice-president in charge of setting freight rates for the Pittsburgh area, interalia, was called upon to explain the fact that his railroad was charging more to carry petroleum than any other railroad. Scott contended that Pittsburgh was merely a way station on the Pennsylvania's main line to the West. As such, it was subject to local short haul rates rather than the substantially lower through rates.45

When Scott was asked to explain the method by which he and his associates determined railroad freight rates, he answered with the arrogant assertion that "a mind not familiar with transportation" was not capable of understanding "the necessity of the circumstances connected with transportation" which go into the making of rate schedules.46 In other words, only he and his associates were capable of understanding what was involved in rate determination.

Scott had no answer in response to the testimony that officers of the Pennsylvania Railroad openly admitted to committees from the Pittsburgh Petroleum Association that the railroad did not care whether it carried a solitary barrel of oil to or from Pitts-

4 Ibid., p. 173.
4a Ibid., p. 169.
4b Ibid., pp. 206-207.
4c Ibid.
Pittsburgh since it had enough business without it and preferred using its Philadelphia and Erie route.

Nothing resulted from either the House or Senate Committee activities. Through Matthew Quay, the Pennsylvania legislature was under the virtual domination of Tom Scott during this entire period of Pennsylvania history.

Before the doors of the Pennsylvania's offices politicians scraped their feet respectfully. At the bidding of the railroad, the Pennsylvania legislature passed necessary measures with noticeable speed. When Mr. Scott, according to legend, had "no further business" for the legislature, it would promptly adjourn.21

Pittsburgh's attempts to obtain legislation which would force the Pennsylvania Railroad to end rate discrimination were made in vain. With equally unsuccessful results, the refining interests made positive efforts to end the dependency on the Pennsylvania. These efforts came too late to save the primacy of the Pittsburgh petroleum industry.

In the middle of the 1860's, pipelines were developed in the oil region to avoid barrelling and wagon hauling, a slow and costly method of petroleum handling. The Pittsburgh refiners, naturally, were very enthusiastic over this new means of bulk petroleum transportation. The Allegheny Valley Railroad had in 1867 become part of the Pennsylvania system. The refiners jumped at this apparent opportunity to escape from at least part of their dependency on the Pennsylvania for efficient all-season transportation. Scott, however, refused to permit the passage of the legislation which would enable the Pittsburgers to construct a pipeline from the oil regions along the Allegheny River bank into the Pittsburgh area.22 It was not until 1883, only five years before the Pennsylvania oil fields were essentially played out, that such a pipeline could be constructed.

Efforts on the part of Pittsburgh shippers to induce the Baltimore and Ohio Railroad to come to Pittsburgh were made before the Pennsylvania Railroad was even incorporated. These efforts did not come to fruition until 1871, when John W. Garrett


finally connected his lines to the Pittsburgh and Connellsville Railroad at Cumberland, Maryland.\textsuperscript{5} It took another four years for this road to cross over the Monongahela River and actually come close to the locations of most of the Pittsburgh area shippers. This alternative to the Pennsylvania system came just a few years too late to help the waning Pittsburgh petroleum industry.

In 1875, Pittsburghers finally succeeded in opening another rail outlet for their city which would effectively compete with the Pennsylvania system and the almost equally discriminatory Baltimore and Ohio. The Pittsburgh and Lake Erie Railroad, promoted for thirty years before its final construction, was financed by Pittsburgh area investors and municipalities responding to the need to give the Pennsylvania competition.\textsuperscript{64} It ran from Pittsburgh to Youngstown, Ohio. At Youngstown it connected with the Erie and New York Central systems. Although this route to the East was quite circuitous, the new venture was an initial success since the period when railroad rates had some relationship to railroad distances was still in the future. By 1875, however, an independent petroleum industry in Pittsburgh had ceased to exist.

Cleveland’s emergence as the successor to Pittsburgh for supremacy in the petroleum industry was not due to any direct effort on the part of either Cleveland’s city government or its industrialists. It was the result of the existence of transportation competition in Cleveland and the absence of such competition in Pittsburgh. The pattern of Cleveland’s rivalry with Pittsburgh over the oil industry was established four years before John D. Rockefeller devoted his genius to the concentration of the entire industry under his domination. In 1867, this Cleveland refiner was still involved in the struggle to accumulate enough capital to buy out his partners rather than his competitors.\textsuperscript{55}

Rockefeller’s subsequent domination of the Cleveland refiners


\textsuperscript{55}Allan Nevins, \textit{John D. Rockefeller: The Heroic Age of American Enterprise} (New York: Scribner’s, 1940), I, 256.
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automatically resulted in the domination of his influence throughout the entire petroleum industry. By the time he was ready to extend his control over the industry beyond Cleveland into the other refining centers, the Pittsburgh refiners were in no position to resist.

By 1872, Cleveland had a daily refining capacity of 16,000 barrels, of which 15,000 were controlled by John D. Rockefeller's Standard Oil Company. In sharp contrast, Pittsburgh's active refining capacity was only 10,000 per day and was in the process of contracting. The petroleum industry in Pittsburgh was clearly in need of salvation, and John D. Rockefeller was available as its savior.

Rockefeller and the Pittsburgh refiners had many things in common with each other. Both were hostile to the Pennsylvania Railroad. Pittsburgh had been suffering from the consequences of the Pennsylvania's discriminatory rate policies. Rockefeller and Tom Scott were at odds over Scott's attempts to monopolize the transportation of petroleum without adequately considering the interests of the Standard Oil Company.

Through an alliance with Rockefeller, the Pittsburgh refiners could exert considerably greater pressure against the Pennsylvania Railroad and against the disruptive crude oil price instability that had existed since 1871. In short, both John D. Rockefeller and the Pittsburgh petroleum industry were no longer interested in competing with each other. On a single day in the summer of 1874, John D. Rockefeller made the Pittsburgh oil refining industry a not too important branch operation of his Cleveland-based Standard Oil Company.

The supremacy of Pittsburgh as an oil refining center lasted only eight years after Drake's oil strike of 1859. Its short life may be summarized as the result of too much competition in one area and not enough in another. Competition between transportation alternatives gave Cleveland its foothold in the petroleum industry and enabled it to compete with the area that gave birth to that industry. Pittsburgh's competition with Cleveland from 1867 to 1869 resulted in Pittsburgh's subordination to Cleveland. The Pennsylvania Railroad's freedom from competition in the Pittsburgh area determined this outcome.

References: