



A DUPONT POWDER MILL  
Courtesy of Eleutherian Mills Historical Library

## THE POWDER TRUST AND THE PENNSYLVANIA ANTHRACITE REGION

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**T**HE powder trust or Gunpowder Trade Association evolved as a direct response to the growth and development of the Pennsylvania anthracite coal region. Since coal operators bought large lots of blasting powder, they frequently obtained discounts from producers of powder. Competition among the powdermen for these contracts produced price wars as early as the 1850s. Often the coal operators played one powder company against another and encouraged small powder mills to locate near mine sites. Thus, the anthracite coal miners exercised buyer's control over the purchasing of blasting powder in the mid-nineteenth century. Feeling impotent in the face of such powerful consumers, the powdermen decided to band together to protect their interests. The result was the powder trust or Gunpowder Trade Association which tried to set minimum prices and control the production of blasting powder in eastern Pennsylvania. Although the powder trust developed into a national organization, its origins were in the anthracite region of Pennsylvania. Many of the price-fixing programs that the powdermen used in the hard coal markets were applied successfully to the problems of the national market. In essence, the GTA's experience in eastern Pennsylvania served as a model for the nationwide price-fixing of blasting powder.

An indication of the importance of the anthracite region to the powder producers was the locating of powder mills near the large coal producing areas. In 1858 as the demand for blasting powder increased, the Du Pont Company acquired a powder mill that Parrish Silver and Company had built on Big Wapwallopen Creek, a tributary of the Susquehanna River, in Luzerne County, Pennsylvania. Another large powder firm, Laflin, Boies, and Turck, later to become Laflin & Rand, purchased the Moosic Mills at Spring Brook near Scranton in 1865. Many small powder firms sprang up in the

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hard coal region also, and competition increased sharply among powder manufacturers after the Civil War.<sup>1</sup>

Since the anthracite coal fields of Pennsylvania consumed almost 50 percent of the nation's blasting powder by 1865, a group of powdermen led by Lammot du Pont were anxious to prevent extreme price declines after the Civil War.<sup>2</sup> Two factors in the Pennsylvania anthracite powder market intensified price competition among the powdermen.

First, as coal prices dropped after 1865, many large coal operators wanted to cut mining costs so the small powder mills were forced to lower the price of blasting powder for the large coal operators. Consequently, a price war flared-up between the large and small powder producers in eastern Pennsylvania.<sup>3</sup> The ultimate effect of this price cutting was to reduce prices below the production costs of both large and small manufacturers.

Second, during the summer of 1866 the large producers of powder intensified price competition by ordering their agents in the anthracite region not to be undersold. The coal companies contributed further to price decline by playing one powder company's agent against another. F. L. Kneeland, the New York representative of the Du Pont Company, described the typical strategy of a mining operator as follows:

He buys a lot of powder and pretends to get it under price, and says he is pledged not to tell; the agent who does not get the sale believes it, or pretends to and down goes prices. The miners see that [in the] state of things all they have to do is to stop buying from where they usually do, down rushes the agent to know why . . . [and] . . . is told he [customer] can do better elsewhere.<sup>4</sup>

As the situation deteriorated, F. L. Kneeland and William Barclay Parsons of Laflin & Rand attempted to stabilize prices. Meanwhile, the Hazard Company cut prices from \$4.00 to \$3.80 per keg at Scranton, Pennsylvania, in early 1867. After Kneeland and Parsons tried in vain to convince Colonel Augustus G. Hazard of the Hazard Powder Company that this was detrimental to the trade, Kneeland telegraphed General Henry du Pont to come to New York and confer

<sup>1</sup>Arthur P. Van Gelder and Hugo Schlatter, *History of Explosives in America* (New York, 1927), 193.

<sup>2</sup>F. L. Kneeland to Du Pont Company, November 3, 1866, Accession 500, Box 189-26, Old Stone Office Records, Eleutherian Mills Historical Library (EMHL).

<sup>3</sup>*Ibid.*

<sup>4</sup>*Ibid.*

with the Hazard Company and others.<sup>5</sup> Although he preferred to conduct business from his Brandywine office, General Henry du Pont consented to come to New York City. After General Henry du Pont arrived in New York, Du Pont, Hazard, and Laflin & Rand reached a compromise in the spring of 1867, and they set prices at \$4.50 per keg of blasting powder. This compromise was for the anthracite district and the whole nation.<sup>6</sup>

In 1867 the increased competitive pressures in the anthracite coal fields were the main factors in forcing the powdermen into more formal pricing agreements. During the 1860s violations of pricing agreements were quite common. For example, General Henry du Pont, when he heard of price cutting in the anthracite region, opined that any attempts to fix prices with either the Laflins or the Hazard Company would be futile. General Henry du Pont then directed his agents to meet prices at any point.<sup>7</sup> With further price reductions throughout the anthracite district, the smaller producers had much the same sentiments as General Henry du Pont.<sup>8</sup>

The situation became worse with the entry of the Bennington Mills of Bennington, Vermont, in mid-1867. This firm forced its way into the anthracite coal regions of Pennsylvania by constructing a magazine at Pittstown, Pennsylvania.<sup>9</sup> As prices continued to decline, the large producers invited the Bennington firm to join with them in fixing prices for the anthracite region. But the Vermont firm refused and withdrew from the anthracite region. Understandably, the coal operators, who liked the price declines, condemned this attempt of the "Powder ring . . . to monopolize" the sale of powder in the anthracite region of Pennsylvania.<sup>10</sup>

To counteract the impact of the smaller mills, the powdermen that had reached a compromise earlier in New York abandoned any type of cooperation and encouraged their agents to slash prices. Du Pont, Laflin & Rand, and Hazard had huge inventories that further aggravated the situation. Hazard lowered prices in eastern Pennsylvania. Simultaneously, the Laflins charged the Du Ponts with bad faith and

<sup>5</sup>F. L. Kneeland to Du Pont Company, March 18, 1867, Acc. 500, Box 189-27, Old Stone Office Records, EMHL.

<sup>6</sup>Du Pont Company to F. L. Kneeland, April 20, 1867, Acc. 500, Box 215-13, Old Stone Office Records, EMHL.

<sup>7</sup>*Ibid.*

<sup>8</sup>Francis Cox to A. G. Hazard, April 29, 1867, Acc. 500, Box 189-28, Old Stone Office Records, EMHL.

<sup>9</sup>Du Pont Company to F. L. Kneeland, May 18, 1867, Acc. 500, Box 189-28, Old Stone Office Records, EMHL.

<sup>10</sup>Hugh W. Greene to Coal Operators, July 18, 1867, Acc. 500, Box 189-29, Old Stone Office Records, EMHL.

withdrew from the informal arrangement formulated in New York.<sup>11</sup>

Throughout 1867 and 1868 a general price war raged. No market could escape the price cutting, and Du Pont's policy of encouraging cooperation caused a reaction against the firm. The anthracite consumers claimed Du Pont's sole desire was to establish a monopoly. Since Du Pont lowered prices only after its competitors had, the other firms assumed the role of the consumer's friend.

In 1868, with the death of Colonel A. G. Hazard, General Henry du Pont's friend, the hope of cooperation dimmed. In fact, the new management of the Hazard firm soon proved to be very uncooperative. In the summer of 1868 the Du Pont Company served notice to the new management of the Hazard firm that they would drive Hazard out of the anthracite market if the Connecticut firm would not adhere to some form of price control.<sup>12</sup>

Two younger executives, however, still thought cooperation could be achieved in 1868. Lamot du Pont, nephew of General Henry du Pont, and Henry M. Boies, superintendent of the Moosic Mills and son of the president of Laflin & Rand were anxious to form an organization that would avoid "much of the odium of 'Rings' and combination." Accordingly, H. M. Boies named the proposed association The National Board of the Powder Manufacturers of the United States.<sup>13</sup>

Essentially, the object of the proposed association was to provide as follows:

A concentration of the strength of this extensive and important branch of manufactures and trade;—to protect it from injurious legislative or other interference;—to reopen to it the market of the world;—to collect and preserve such information and statistics as may be useful to foster and extend the trade at home and abroad;—to afford mutual [sic] protection to its members;—and prevent ruinous competition in prices.<sup>14</sup>

However, this plan did not get past the discussion stage until 1872.

By early 1872 the price cutting of blasting powder was only helping the coal operators so Laflin & Rand and Du Pont decided to

<sup>11</sup>F. L. Kneeland to Du Pont Company, July 30, 1867, Acc. 500, Box 189-29, Old Stone Office Records, EMHL.

<sup>12</sup>F. L. Kneeland to Du Pont Company, August 20, 1868, Acc. 500, Box 191-36, Old Stone Office Records, EMHL.

<sup>13</sup>H. M. Boies to Lamot du Pont, August 5, 1868, Acc. 384, Box 30-16, EMHL.

<sup>14</sup>Memoranda by H. M. Boies, August 5, 1868, Acc. 384, Box 30-16, EMHL.

come to terms in dividing the Lehigh district of Pennsylvania. No doubt the rumor that coal operators had formed a buyer's oligopoly with regard to blasting powder stimulated the concern for cooperation.<sup>15</sup> After careful consideration, General Henry du Pont, head of the Du Pont Company, admitted the merits of a cooperative association. But the larger companies would have to invite the cooperation of the Oriental and American companies (smaller firms) or "it would be only giving them a margin." Subsequently, the powdermen established minimum prices for the Lehigh district.<sup>16</sup>

After the negotiation of the Lehigh anthracite coal district agreement, Lammot du Pont, H. M. Boies, and F. L. Kneeland renewed their efforts to organize a national association. These men drew up a plan for cooperation that provided for quarterly meetings to discuss related problems and price scheduling. The scheme weighted representation according to the size of the firm. Accordingly, the larger producers would dominate the organization. The inevitable accusations with regard to price cutting would be studied by an impartial subcommittee.<sup>17</sup> While these proposals were met with enthusiasm from most of the major and minor powder producers, General Henry du Pont retained a skeptical attitude about the whole affair.

Through the persuasion of Lammot du Pont and several key persons in the Du Pont Company, General Henry du Pont became more receptive to trying cooperation once more. After four years of cutthroat competition with the Laflin & Rand Powder Company in the anthracite region, General Henry du Pont felt that offering the olive branch to the Laflins would only provide a brief respite for both of the companies before they renewed their efforts to capture new markets.<sup>18</sup> But the stockholders of the Laflin & Rand Company were forcing Albert Tyler Rand to accept the offer of peace by the Du Pont Company.<sup>19</sup> As a result, a workable agreement seemed plausible in early 1872.

The main reason for Laflin & Rand's willingness to cooperate was

<sup>15</sup>Du Pont Company to F. L. Kneeland, January 9, 1872, Acc. 500, Box 219-38, Old Stone Office Records, EMHL.

<sup>16</sup>Du Pont Company to F. L. Kneeland, March 23, 1872, Acc. 500, Box 219-39, Old Stone Office Records, EMHL.

<sup>17</sup>F. L. Kneeland to Du Pont Company, April 16, 1872, Acc. 500, Box 198-72, Old Stone Office Records, EMHL.

<sup>18</sup>Du Pont Company to F. L. Kneeland, April 4, 1872, Acc. 500, Box 219-39, Old Stone Office Records, EMHL.

<sup>19</sup>F. L. Kneeland to Du Pont Company, April 10, 1872, Acc. 500, Box 198-72, Old Stone Office Records, EMHL.

its desire to preserve new markets in the anthracite region that it had wrested from the Du Ponts in the post-Civil War period. In assessing Laflin & Rand's readiness to cooperate, Lammot du Pont opined that Laflin & Rand was trying to obtain "peace . . . at any cost" to legitimize its market gains. Du Pont also resented Laflin's contracting with Du Pont's largest customers for six to twelve months prior to the agreements. In spite of these animosities and to stop the pressure of the coal operators on the powdermen, the Gunpowder Trade Association was formed on April 23, 1872.

The first order of business in the newly formed GTA was the control of prices in the Pennsylvania anthracite region. But the coal operators combination formed an oligopsony (buyer's oligopoly) and tried to play one powder producer against another to keep prices low by buying in large lots. As the first president of the GTA, Lammot du Pont wanted desperately to find some way to control the explosives market in the anthracite region.

From the start of the GTA, Lammot stressed the importance of statistics in analyzing a market situation. In the spring of 1872 Lammot du Pont and E. I. du Pont II estimated that Du Pont and Laflin & Rand controlled over 60 percent of the powder produced in the anthracite region and a dozen lesser firms divided the remainder. After some deliberation, Du Pont and Laflin & Rand in conjunction with the GTA began to purchase small powder mills in the Pennsylvania anthracite district. Lammot felt that controlling the level of production in those lesser firms was the key factor in price regulation.<sup>20</sup>

When this decision was made, Lammot du Pont ordered the purchasing of smaller powder firms in the anthracite district to be kept a secret so that the coal operators would not be angered.<sup>21</sup> In his strategy Lammot du Pont tried to thrust the blame for rising prices upon newly acquired smaller firms that appeared to be independent of the GTA. He told agents in the anthracite region to blame the rise in prices upon a rise in the cost of materials.<sup>22</sup>

This procedure of buying out smaller mills was not popular among GTA members either. When Lammot du Pont invited H. M. Boies of Laflin & Rand to share in the purchase of an independent mill, he declined. But Boies asked that he be sent all the disgusting particu-

<sup>20</sup>E. I. Du Pont II to F. L. Kneeland, January, 1873, Acc. 500, Box 220-43, Old Stone Office Records, EMHL.

<sup>21</sup>Lammot du Pont to H. A. Weldy, September 16, 1873, Acc. 384, Box 26, EMHL.

<sup>22</sup>Lammot du Pont to H. A. Weldy, September 14, 1873, Acc. 384, Box 26, EMHL.

lars.<sup>23</sup> The logic of Lammot du Pont, however, was persuasive. In 1873 he stated that the Pennsylvania anthracite region was "so broken up and such competition as yield no one any good."<sup>24</sup>

The Du Pont and Laflin & Rand companies differed on sharing the cost of purchasing the mills even though they felt sharing was needed. Originally the strategy of Du Pont and Laflin & Rand had been to set prices very low to force small mills to sell. For example, Du Pont bought out a group of mills along the Little Schuylkill River, and Laflin & Rand purchased several mills around Pottsville. Usually the idle workmen from these mills were transferred to other places to stop other mills from being founded. In the Shamokin area Lammot suggested that the prices be kept at cost to force more mills out of business. All of the trade acquired through this strategy was to be divided equally between Du Pont and Laflin & Rand. But the president of Laflin & Rand, Solomon Turck, balked at some of the huge prices paid for the small mills.<sup>25</sup>

Lammot du Pont admitted that two mills went for a highly inflated price. He estimated that Smith mill's value was \$7,000, but he had to pay \$25,000 for it. Similarly, Ginter's mill was only worth \$5,000, but the Du Pont Company paid twice that amount for it in 1873.<sup>26</sup>

Turck complained that the cost of obtaining price control in the anthracite fields was too high. Lammot du Pont countered this argument by saying that the inflated purchase cost could be regained in a few years since they could advance prices to a more desirable level in certain anthracite markets. In January, 1874, the parties settled the dispute by agreeing to be more cautious about purchases in the future.<sup>27</sup>

In the spring of 1874 the powdermen were also plagued by dissension from within. Thomas C. Brainerd, the president of the GTA council, resigned his position in the GTA and withdrew as a partner in the Laflin & Rand Company to establish York Mills. Located in York, Pennsylvania, the mills were near several main transportation arteries (the Baltimore and Ohio Railroad, the Pennsylvania Railroad, and the Susquehanna River). Because of these transportation advantages, it was no wonder that members of the GTA viewed Brainerd as a threat to the stability of the whole na-

<sup>23</sup>Lammot du Pont to H. Belin, March 23, 1873, Acc. 384, Box 26, EMHL.

<sup>24</sup>"Schuylkill Powder Trade," Acc. 384, Box 31-51, EMHL.

<sup>25</sup>Lammot du Pont to Solomon Turck, October 12, 1873, Acc. 384, Box 26, EMHL.

<sup>26</sup>Lammot du Pont to Solomon Turck, January 4, 1874, Acc. 384, Box 25, EMHL.

<sup>27</sup>*Ibid.*



tional market. Some powdermen thought he was out to destroy the GTA altogether. But according to the Du Pont management, Brainerd was just establishing a new independent mill at the edge of the southern anthracite field to sell to the GTA at an inflated price.<sup>28</sup>

Not only was Thomas C. Brainerd shrewd enough to realize the locational advantage of the York Mills, but also he saw the weakness in the marketing system that the GTA was trying to establish in eastern Pennsylvania. Brainerd's experience in the powder business first as an agent and then as president of the GTA council made him a dual threat since he knew the future strategy of the organization. He observed that the Pennsylvania anthracite fields were a lucrative market, and he knew the GTA's minimum price control was a weak system.

Brainerd spent most of 1874 getting his mills in shape for production and caused little trouble for the GTA that year. In fact, Lammot du Pont stated that "I am glad Thomas Brainard [sic] has taken York, as it will probably keep him Eastward, for I much feared he would have started mills to supply Illinois."<sup>29</sup> But an advertising circular dated March 30, 1874, foreshadowed things to come.

Mr. Thos. C. Brainerd, formerly Superintendent of the Laflin Powder Company, and connected with the management of the Laflin Powder Co. from its organization to the present time, would inform large consumers of powder that he has begun the manufacture of that article upon his own account, and that he will be happy to receive orders from his old friends or others. With the most approved modern machinery, and peculiar facilities for shipping, &c., he can guarantee that purchasers will receive goods of the best quality and at the lowest possible price.<sup>30</sup>

By the summer of 1874 Brainerd began to offer blasting powder for 50 cents per keg less than the GTA minimum price since his capital was "small and he needs the money . . . ."<sup>31</sup> He also advertised that not being in the combination he was at "liberty to sell for less profit than those combined together . . . ."<sup>32</sup> In this envi-

<sup>28</sup>Du Pont Company to F. L. Kneeland, March 1, 1874, Acc. 500, Box 221-50, Old Stone Office Records, EMHL; Van Gelder and Schlatter, *History of the Explosives Industry in America*, 295.

<sup>29</sup>Lammot du Pont to F. L. Kneeland, March 19, 1874, Acc. 500, Box 221-50, Old Stone Office Records, EMHL.

<sup>30</sup>Advertising Circular, Acc. 500, Box 420-6, Old Stone Office Records, EMHL.

<sup>31</sup>F. L. Kneeland to Du Pont Company, June 13, 1874, Acc. 500, Box 202, Old Stone Office Records, EMHL.

<sup>32</sup>*Ibid.*

ronment the GTA could not exercise price control in the Pennsylvania anthracite fields.

By the end of 1874 Brainerd was raiding the anthracite markets as well as markets as far west as Illinois. Since Brainerd's wife was a Boies and a large stockholder in Laflin & Rand, the Du Pont management reasoned that he might be a cat's-paw for the real troublemaker, Laflin & Rand.<sup>33</sup> It appeared to Du Pont that Brainerd was striking systematically at Du Pont markets to the exclusion of others.<sup>34</sup>

Brainerd had quoted cheap prices as far West as Missouri and Illinois. Agents, however, said that he had "failed to get trade or break price as far as heard from, people are afraid of him."<sup>35</sup> Since Brainerd offered cheap powder for cash in advance, the large consumers were cautious. They had no redress if the powder turned out to be poor in quality.<sup>36</sup>

Indeed, it appeared increasingly ludicrous that the price should be driven down by a company that had 1/60 of the productive capacity of the GTA.<sup>37</sup> A. E. Douglass of the Hazard Company, however, stated that if Brainerd's prices were met in one regional market he would go to another and another, eventually forcing prices down throughout the whole nation. Douglass also thought that Brainerd could not produce over 12,000 kegs per annum or two carloads every six weeks. In short, Douglass advocated a wait and see policy.<sup>38</sup>

By December 24, 1874, the behavior of Brainerd suggested that he did not want to fight the combination. Instead, Brainerd wished to topple the president of Laflin & Rand, Solomon Turck, so that he could assume that position. Brainerd's motives for purchasing York Mills became clearer. He wanted to demonstrate his entrepreneurial and executive abilities so the stockholders would call upon him to assume the presidency of Laflin & Rand.<sup>39</sup>

With the power struggle developing within the Laflin & Rand

<sup>33</sup>F. L. Kneeland to Du Pont Company, December 22, 1874, Acc. 500, Box 202, Old Stone Office Records, EMHL.

<sup>34</sup>*Ibid.*

<sup>35</sup>F. L. Kneeland to Du Pont Company, December 23, 1874, Acc. 500, Box 203-98, Old Stone Office Records, EMHL.

<sup>36</sup>Lammot du Pont to A. E. Douglass, December 23, 1874, Acc. 384, Box 7-60, EMHL.

<sup>37</sup>A. E. Douglass to Lammot du Pont, December 24, 1874, Acc. 384, Box 7-60, EMHL.

<sup>38</sup>*Ibid.*

<sup>39</sup>F. L. Kneeland to Du Pont Company, December 24, 1874, Acc. 500, Box 203-98, Old Stone Office Records, EMHL.

Company, the Du Pont management became the deciding factor in this struggle. Some stockholders in Laflin & Rand supported Brainerd's bid for the presidency since he offered dividends. Others chose to side with Solomon Turck even though he offered no dividends. Since they were equally divided, any action against Brainerd by Du Pont would influence the leadership struggle within the Laflin & Rand Company.<sup>40</sup>

In sizing up the Brainerd situation, Lammot du Pont saw two alternatives. The first was to lose \$100,000 in a price war and let the stockholders of Laflin & Rand supplant Turck with Brainerd. The second was to lose the profit of about \$6,000 in the trade Brainerd had captured and let Brainerd go bankrupt. The latter alternative was chosen in late 1874.<sup>41</sup>

By early 1875 some basic assumptions about the wisdom of this alternative had to be changed. Brainerd's liquid capital investment appeared to be very small initially, but the GTA discovered that a prominent New York coal investor, Andrew Carey, had put-up \$10,000 to launch Brainerd's operations and was willing to put more of his personal fortune of \$150,000 behind York Mills. Revisions would have to be made in the GTA's strategy.<sup>42</sup> Brainerd not only had locational advantages on his side but also the help of some of the anthracite coal magnates. His indiscriminate price cutting and the deepening of the panic of 1873 forced the GTA to acknowledge him as a real threat in the summer of 1875.

Gradually, a compromise plan emerged in the GTA council. The men of the GTA wanted to eliminate York Mills, but they also needed an experienced powderman to help them invade the growing markets of Canada. Why not buy out Brainerd and ship him off to Canada to manage this new GTA project? The GTA formed a committee to investigate this question.<sup>43</sup>

Lammot du Pont liked this idea since it would solve two problems. The first problem was the expected growth of the Canadian Mills (two at Windsor and one at Hamilton, Ontario). In 1875 the Canadian Mills were flourishing. Construction of the Welland Canal provided a steady demand for blasting powder. But demand would

<sup>40</sup>Lammot du Pont to F. L. Kneeland, December 27, 1874, Acc. 500, Box 222-54, Old Stone Office Records, EMHL.

<sup>41</sup>*Ibid.*

<sup>42</sup>F. L. Kneeland to Du Pont Company, January 11, 1875, Acc. 500, Box 203-99, Old Stone Office Records, EMHL.

<sup>43</sup>F. L. Kneeland to Du Pont Company, October 16, 1875, Acc. 500, Box 204-106, Old Stone Office Records, EMHL.

drop in three years when the canal would be completed, and 500,000 kegs in excess capacity would be dumped in the Great Lakes trade every year by the Canadian Mills. Purchasing these mills before this happened appeared to be the answer.<sup>44</sup>

The second problem involving Brainerd was more immediate. Brainerd had played havoc with the price structure of the GTA. Lammot du Pont asserted that the only viable way to get rid of Brainerd was for the GTA to buy him out. Lammot du Pont said it would take three years to destroy Brainerd with the coal magnates supporting him. And then they would have to meet immediately the onslaught of the Canadian Mills in the Great Lakes region.<sup>45</sup>

On March 10, 1876, the GTA resolved both the Canadian and Brainerd problems. They decided to purchase the York Mills and move Brainerd to Canada as head of the Canada Powder Company at a salary of \$5,000 per annum. With the exception of the Maritime provinces, the GTA gave Brainerd all of Canada as a marketing district for twenty-five years. Finally, the Canada Powder Company was to purchase powder from the GTA associates to sell in Canada in proportion to the number of votes that each GTA associate had.<sup>46</sup>

The final answer to the Canadian problem was the establishment of the Gunpowder Export Company in August, 1876. Basically the members of the GTA shared the cost of the capitalization of the Gunpowder Export Company according to their relative sizes. Majority control of the new firm was to be in the hands of the Du Pont, Laflin & Rand, and Hazard companies. The lesser companies in the GTA had a voice in policy matters, but their combined strength was not sufficient to reshape policy for this newly created company. This Canadian company was under the direction of Thomas C. Brainerd. It served as the Canadian counterpart of the GTA.<sup>47</sup> Solomon Turck emerged as the undisputed leader of Laflin & Rand as a result of this controversy, and he realized that the Du Pont Company had helped him to solidify his position. This made Turck even more willing to cooperate in the GTA. Another major problem in controlling prices in the anthracite region had also been eliminated.

By 1876, with the purchase of York Mills, price control of blasting powder was virtually complete in the anthracite region. Profits in powder were up. The Du Pont mills at Wapwallopen "cleared

<sup>44</sup>"Comment on Report to Purchase Brainerd Mills," Acc. 384, Box 30-17, EMHL.

<sup>45</sup>*Ibid.*

<sup>46</sup>"Resolutions of the GTA on March 10, 1876," Acc. 384, Box 30-17, EMHL.

<sup>47</sup>"General Agreement Gunpowder Export Company, Limited," August 26, 1876, Acc. 500, Box 516, Old Stone Office Records, EMHL.

\$20,000 on sales at \$2.00 and made 100,000 kegs of "B" blasting powder on 20¢ per keg."<sup>48</sup> Since profits were good, Lammot decided to drive out the last major independent, Oliver Powder Mills of Wilkes-Barre, by cutting prices to cost (\$1.80 per keg) in January of 1877. The next month he cut prices to \$1.60 when Oliver showed signs of weakening. At this point the coal operators stepped in and began to buy powder from Oliver at \$2.00 per keg just to keep him in business. But Oliver yielded eventually to the GTA in spite of the coal operators' aid.<sup>49</sup> Although the coal operators could not control the activities of the GTA, they continually tried to play the producers against each other.

In 1878 this controversy forced Du Pont, Hazard, Laflin & Rand, the Moosic, and the H. A. Weldy and Company into a marketing agreement for the entire anthracite area. The parties to the agreement divided the anthracite region into four districts that roughly corresponded to the northern, eastern middle, western middle, and southern anthracite fields. In the northern field the Du Pont and Moosic companies divided the powder trade equally. Since Laflin & Rand owned the Moosic company, Laflin & Rand and Du Pont really shared this market. In the eastern and western middle fields Laflin & Rand, Du Pont, and H. A. Weldy shared the market in thirds. In the southern field the Laflin & Rand Company obtained a monopoly, and the Hazard Company sold its surpluses and left the anthracite market altogether.<sup>50</sup>

To enforce the agreement, each party agreed to submit quarterly sales reports with affidavits testifying to the accuracy of the report. All future purchases of competing mills were to be done jointly. Finally, the agreement established the following prices.

	Salt peter Blasting (per keg)	"B" Blasting (per keg)
The northern field	\$2.30	\$1.80
The eastern field	2.30	1.80
The western field	2.30	1.80
The southern field	2.30	1.80 <sup>51</sup>

<sup>48</sup>Lammot du Pont to F. L. Kneeland, October 26, 1876, Acc. 500, Box 224-70, Old Stone Office Records, EMHL.

<sup>49</sup>"Memorandum of an Agreement, February 8, 1878," Acc. 500, Box 547-13, Old Stone Office Records, EMHL.

<sup>50</sup>*Ibid.*

<sup>51</sup>*Ibid.*

The anthracite agreement remained in effect until the dissolution of the GTA in 1912. Except for minor problems in the 1880s, it functioned quite effectively. The large coal operators were never again able to exercise buyer's control over the powder industry. In fact, the agreement worked so well that it served as a model for market control of powder on a nationwide scale for the rest of the nineteenth century.

Paradoxically, it was the external threat of a buyer's combination among the coal operators that triggered the formation of another combination, the powder trust or GTA. Without such a motivation, the powder producers might have found it much more difficult to cooperate. By the 1870s it had become clear to most powdermen that control of the hard coal markets in Pennsylvania was crucial for the success of the GTA in fixing prices since it consumed 50 percent of all the blasting powder produced in the United States. Once control over this region was established, controlling the national market became an easier job.