

THE ORIGINS OF E. I. DU PONT DE NEMOURS
AND COMPANY--1801-1805

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I became interested in the E. I. du Pont de Nemours and Company as one of a number of case studies on the theme of the relations of private enterprise with the national government during the first decades of the Republic. As a by-product of my work on this theme I was drawn into a study of the origins and early development of the company.¹

By-products have a way of becoming as interesting as the product. This was the case with the study of the E. I. du Pont de Nemours and Company. I have found the history of the company particularly fascinating because it involves in addition to the usual themes of the history of a business in the United States a consideration of some rather unusual ones, such as the transmission of European business forms, practices, and values to the United States, the importation of French capital and French gunpowder technology to this country, and the rise of a French immigrant as one of America's pioneer industrialists.

My remarks today are in the nature of a report of work-in-progress on this earliest period of the history of the company. My purpose is not to tell in detail the origin of the company. My purpose rather is to point up the significance of the first period of the company's history--the years 1801-1805. During those years E. I. du Pont created his company and adopted policies about its nature and operation that had a profound effect on its development during the nineteenth century. I want to note what those policies were and say something about the process by which they emerged.

By way of introduction I will comment briefly about the status of the Du Ponts when they left France, and say something about E. I. du Pont de Nemours, the founder of the company.

There has always been some ambiguity about the status of the Du Ponts when they left France in the early fall of 1799 for the United States. They have as often as not been included among the emigres of refugees of the French Revolution.² William S. Dutton, in his book, *Du Pont, One Hundred and Forty Years*, expresses this view most explicitly when he characterizes E. I. du Pont as a "refugee fleeing from a French dictatorship."³

My own research into the status of the Du Ponts when they arrived in the United States leads me to conclude that they were neither emigres nor refugees.⁴ If they had been, the E. I. du Pont de Nemours and Company would never have been founded. The fact is the Du Ponts do not fit neatly into the conventional categories of Revolutionary emigration--neither the "voluntary emi-

gration" of the first years of the Revolution nor the "forced emigration" of the later period.⁵ For a few days in September, 1797, P S du Pont was threatened with deportation; by the time he left France two years later, however, that threat had long ceased to exist; he had come to terms with his government, even to the extent of offering to become a secret agent in the United States.⁶ He was not an emigre or refugee at all in the eyes of his government, but a French citizen; a member of the National Institute--a government agency--on a voyage to investigate the flora and fauna of North America; and a French businessman with plans to engage in commercial activities in the United States that would be of service to his country, as well as to himself. In support of his voyage the government had written to English authorities requesting that he be accorded diplomatic immunity as a scientist in case the ship he was traveling on was captured. Throughout his preparation for his trip to the United States P. S. du Pont kept the members of the Directory fully informed of his plans and received their support and encouragement.⁷

Victor du Pont's status is even less ambiguous than that of his father's. When P. S. du Pont decided to leave France, his son Victor was in the United States serving as French consul in Charleston, South Carolina. He returned in 1798 hoping to prevent his father from launching an enterprise which he thought was only just short of madness. Upon his return Victor was welcomed officially and socially by Talleyrand and other members of the French Foreign Office and his views on American affairs solicited. Shortly before Victor left France to return to the United States with his father he was offered another diplomatic post by the French government, which he refused only in deference to his father, who insisted that he was needed to manage their commission business affairs in New York City.⁸

E. I. du Pont's status when he left France was the same as that of his brother's. He was a French citizen carrying a French passport. Largely apolitical, he was attracted to the United States because of the economic opportunities he thought it offered, and not because he sought political asylum.

My conclusion is that the Du Ponts left France voluntarily with the full knowledge and permission, even the support, of the French government. Before they left France P S du Pont and his sons already made plans for one of them to return to France, as soon as they had settled their families in the United States, to raise additional capital for their business activities in New York. Within a few months of their arrival in the United States they had decided to implement this plan. In early 1801 Victor and E. I. du Pont returned to France without the slightest hesitation or fear, hardly the actions of men who had fled the country in fear of their lives.

The youngest of the adult Du Ponts who came to the United States in 1800 was Eleuthere Irenee du Pont. He was the key figure in the origin of the E. I. du Pont de Nemours and Company, not his father, P. S. du Pont, as one writer has suggested. It was E. I. du Pont who conceived of the idea of a gunpowder manufactory in the United States modeled after mills in France. It

was E. I. du Pont who created the company, who selected the site, who planned and built the mills, and who passed on to other Du Ponts a thriving, profitable business. During the earlier phases of the development of the company P. S. and Victor du Pont participated with E. I. du Pont in raising capital and in making some of the decisions about the organization of the company, but their influence was seldom decisive in important matters and in any case rapidly diminished when P. S. du Pont returned to France in 1802 and when Victor went off to become a country storekeeper in western New York. In most respects the involvement of P. S. and Victor du Pont in the affairs of the gunpowder company was more a hindrance than a help to the founder of the company.

When E. I. du Pont arrived in this country he was approaching thirty years of age. He was a big man, almost six feet tall, with a well-proportioned figure set off by a generous shock of auburn hair. He had a strong face with regular features: pleasant brown eyes, a narrow forehead, and an aquiline nose; his mouth was of medium size and his cleft chin jutted slightly. He would have been handsome but for large wine colored birth marks on his left cheek and the loss of most of his teeth, the result of an unsuccessful effort to straighten them using a treatment recommended to him by Madame Lavoisier. Josephine de Pont, Victor's wife, who was a close, perceptive observer of her relatives and friends and who took a particular delight in pointing out their defects, thought highly of Irene. In her judgement he was an excellent young man, combining qualities of spirit, common sense, intelligence, and generosity. The trait that most distinguished him from his brother and his father was a preference for the simple life. Hunting, fishing, hiking, collecting plants, gardening and stuffing birds, these were the things he liked best.

Although amiable enough, Irene was shy and reticent with any but close friends or relatives; he was the kind of man who is usually on the edge of a group rather than at the center participating in the conversation. Unlike his gregarious brother Victor, he did not mix well.

This natural shyness was accentuated in America by language difficulties. When Irene left France he could neither write nor speak English, and he made only slow progress during his first years in this country; it was a long time before he trusted himself to write a simple business letter in English. He avoided Americans who could not speak French, and for several years confined his social activities almost exclusively to members of his family or the few Frenchmen he met in America.

Throughout his life in France Irene had been a devoted husband and father. Emigration strengthened his devotion of his family. He became fiercely determined to find the security for his family in America that had eluded him in France. This determination is the key to his success as an industrialist in America. It is a theme that runs through his correspondence to his wife, the only person he talked freely to about business affairs, the people he met, and his hopes and despairs. From this correspondence we also learn that he was a deeply pessimistic man. He was convinced that if things could go wrong they would; he always

prepared for the worst and was surprised, almost disappointed, when it didn't happen. His pessimism arose partly out of a reaction to his father's infantine optimism and partly out of a desire to protect himself against disappointment. He found ample justification for his pessimism when he reflected on his life in France; disappointments and near disasters during the first years in America confirmed him in it. He approached the task of building his gunpowder mills as if it were his last chance; he defended his position in the company with passion.

When Irenee came to the United States in 1800 there was little to suggest that gunpowder manufacturing would be his future. His training in chemistry under Lavoisier at the Arsenal in Paris and his apprenticeship in the gunpowder works at Essonne were almost ten years behind him.¹¹ Both as student and apprentice Irenee had found his work boring and never applied himself. His lack of interest increased as he more clearly realized that his chances of getting an appointment in the gunpowder administration were slim and that even should he win a place his advancement would be disappointingly slow. Then his prospects faded with Lavoisier's dismissal from government service in 1791, he left Essonne without regret to assist his father in the Paris publishing house.

Irenee's most extensive business experience had been in his father's publishing house during the 1790s. The time he spent in this business stretched over eight years, but there was always something transient about his position. He had accepted it in the first place because he had no other prospects after leaving the state gunpowder works at Essonne and his father needed an office manager and secretary so that he would be free to pursue his political interests. He remained at the publishing house more out of a sense of responsibility to his father than because he liked the work. He fled to the more congenial surroundings of his father's farm at Bois-des-Fosses whenever he got the chance. I have not found any indication that when Irenee came to the United States he had any intention of building on his experience as a publisher.

When Irenee rowed ashore with his family at Newport, Rhode Island from the American Eagle on January 3, 1800, he was, like the young nation he was seeing for the first time, still undefined. He had no clearly developed career interests. In France there had been no real center to his life except his family. He had lacked direction, his attention and energy had not been focused on any clearly defined goal. His life had been largely a reflection of his father's interests and activities. For years he had existed in the shadow of his father and older brother, believed in only by his wife. Only in America did he come into his own. His decision to become a gunpowder manufacturer seems to have transformed him from a man without purpose into a man with a mission. His evolution as one of America's pioneer industrialists began with that decision.

The founding of the E. I. du Pont de Nemours and Company was a product of the failure of the land speculation and commission company founded by P. S. du Pont in Paris in 1798 to finance the

family's emigration.¹² The Du Ponts knew before they left France that they had little chance of making an immediate success out of their scheme to get rich by speculating in land on the Virginia frontier because they lacked the capital for such an enterprise-- of the four hundred shares of stock in their "Compagnie d'Amerique" they had managed to sell only sixty. When they arrived in New York City in early January 1800 they learned from Bureaux de Pusy,¹³ P. S. du Pont's second wife's son-in-law, who had been investigating conditions in America for two months, that in any case the time was not ripe to purchase land because of inflated prices and unsettled economic conditions. This news was confirmed by Thomas Jefferson, the Vice-President, who cautioned P. S. du Pont to be wary of unscrupulous money speculators and land-jobbers who were poised to exploit unsuspecting newcomers. In order not to discourage those European investors who still expressed interest in land speculation, P. S. du Pont continued to write optimistically about his land development plans; on a practical level he turned his attention to the second part of his plan, the commission business.

Suspension of plans for the land development enterprise raised questions about the roles of the four officers of Du Pont (de Nemours) pere et fils et Compagnie. P. S. du Pont had always assumed that Victor would manage the commercial end of things in New York; that Irenee and Bureaux de Pusy would be in charge of agricultural and industrial projects in the colony in the West; and that he would serve as a kind of chairman of the board. Within a few months it became clear that the commission business alone would not require four men, and that the profits would not support four families.

In the spring of 1800 the four men decided that Victor du Pont should return to Europe to secure new commissions for the company and raise additional capital to put their business on a more secure footing. Bureaux de Pusy, who had no taste for business, idled away his time managing the small estate on the Jersey coast facing Staten Island where the families were housed, while he made plans to return to Europe. Irenee began to investigate the prospects of gunpowder manufacturing.

The story of how E. I. du Pont became interested in establishing a gunpowder manufactory in the United States is so well known that only a brief sketch is necessary here. His attention was directed to the manufacture of gunpowder by Anne Louis de Iousard, a professional soldier who had served under La Fayette during the American Revolution.¹⁴ In 1795 Iousard had accepted a commission as a major in the United States Army, and for five years was connected with the improvement of American defenses. His exceptional talents in the technical aspects of military science were complemented by equally superior abilities as a planner, organizer, and administrator. These qualities combined with a pleasant and generous temperament had enabled him partly to overcome the widespread anti-French feeling he had encountered among military and civilian leaders of the Adams administration. When the Du Ponts arrived in the United States, Iousard was involved in the planning that eventually led to the establishment

of the United States Military Academy at West Point.

During a discussion with Bureaux de Pusy and Irene, Iousard mentioned the shabby state of American defenses he had recently inspected and complained about the low quality of gunpowder for the coast artillery and the navy. He said that the reason gunpowder manufactured in the United States was inferior to European powder was because there had been no changes in the process of production in the United States in over a hundred years. Irene confirmed Iousard's evaluation of gunpowder industry by inspection of nearby mills, and began to consider manufacturing powder in the United States using the French process developed at Essonne with which he was still vaguely familiar. Iousard offered to help him investigate gunpowder manufacturing, to use his influence among his numerous friends in the military and civil branches of the government to obtain government contracts, and to search for the best site for a mill. For these valuable services the Du Ponts offered Iousard a share of any profits a gunpowder mill might earn.

At this point, the fall of 1800, Irene decided to return to France with Victor to see if he could interest French businessmen to invest in an American gunpowder manufactory and, if he were successful in this, to buy the equipment and machinery for the mills. Shortly before he left for France Irene asked Bureaux de Pusy, who had served as an engineer in the French army, to apply his skill to the problem of estimating the costs of construction of a mill of a single battery of grinding mills. Iod de Pusy's estimates Irene added information Iousard had collected from inspection of the Lane and Decatur mills in Pennsylvania, and calculated that to build a new mill would require an outlay of \$24,000. An additional \$12,000 would be needed to buy raw materials and tools, construct a second battery of grinding wheels, and make a down payment on a mill site. His estimate of profits based on the operation of the Lane and Decatur mills was encouraging; it showed that gunpowder manufacturing could be a profitable business in the United States. These calculations served as the basis of fund raising efforts in Paris. Before he left, Irene discussed with his father the terms of a charter for the gunpowder company should his efforts to raise capital prove successful. It was agreed that the company should be capitalized at thirty-six thousand dollars--eighteen shares at two thousand dollars a share. While actual drafting of the company charter was deferred until Irene and Victor were in Paris where they could talk with investors, the Du Ponts expected to model the gunpowder company charter after the charter of the "Acte de Societe" of the Du Pont (de Nemours) pere et fils, et Compagnie, which was a typical French limited joint-stock company.¹⁵ E.I. du Pont would be designated director of the company with full responsibilities for management; investors would be liable only to the extent of their investment.

Such was the stage of Irene's planning when he left for France with his brother Victor in early 1801. He was in France from February 5 to May 1.¹⁶ During those weeks he devoted his time to the two important tasks he had set for himself: acquisition of capital to finance the construction of a mill in the United

States, and purchase of gunpowder machinery and equipment. For most of these weeks Irenee was at the Essonne powderworks where he had been an apprentice. There he renewed and strengthened his associations with the top men in the French gunpowder administration, Riffault des Hetres and Bottee de Toulmon, and became a close friend of P.-M.-C. Robin, the superintendent at Essonne.¹⁷ Both Riffault and Bottee had studied under Lavoisier, both were excellent chemists, both had risen through the ranks to important positions, both had written important works on the production of gunpowder. They generously shared their knowledge and experience with Irenee and agreed to help him purchase the equipment he needed for his mill in the United States. Their motives were not solely altruistic. They believed that giving assistance to Irenee would strike at the English economy because efficient gunpowder mills in the United States would enable American producers to compete favorably with English gunpowder manufacturers who supplied the United States with much of its powder. They were also interested in helping Irenee in his American enterprise because they hoped to get in exchange botanical specimens from America to improve French agriculture and to expand their botanical gardens. Irenee agreed to send them plants and seeds from America when he returned, an agreement he kept.

While at Essonne Irenee placed orders for machinery and equipment, obtained detailed memoranda on the theoretical and applied aspects of gunpowder production, and government reports and instructions on the testing of gunpowder, and was allowed to observe testing procedures and to study the experiments to improve machinery that were being conducted. Over the years Bottee kept Irenee informed about developments in the technology of powder manufacture and even recruited for him a head powder man for his mill in the United States.¹⁸

The most important result of Irenee's trip to Essonne was not that he acquired modern machinery and greater technical knowledge of gunpowder manufacturing, although both undoubtedly contributed to his success. Whatever advantages they gave him over his competitors were, however, temporary. Of more lasting importance was that he perceived what made French gunpowder mills superior to those in America: their emphasis on professional management, insistence on skilled and disciplined workmanship and concern for safety of workers, and the value of experimentation and innovation as vital functions of the mill. Irenee adopted these practices from the very beginning of his operations in America. In time they became the characteristics that most distinguished his mills from others, and contributed more to his success than the machinery and equipment he acquired from France.

Irenee later realized that he had not devoted enough attention to the first of his two tasks, that of raising capital to finance his enterprise. Victor assumed part of this responsibility while Irenee was busy at Essonne. Between the two they managed to interest a few of their father's old friends in the plan, and after Irenee returned to the United States Victor continued to promote his brother's gunpowder venture, but they were, however, only partially successful.

The Du Ponts' failure to raise in France all the capital they needed to finance their American business enterprises was not lack of effort. The major stumbling block was uncertainty on the part of investors about the extent of the shareholders' financial responsibility in a company operating in the United States. In France one could invest in a business without assuming any responsibilities of management and without becoming liable for all of the debts incurred by the company.¹⁹ In the United States, however, the principle of limited liability in private companies was not recognized; an investor became totally liable for the debts of the company irrespective of the amount of his investment.²⁰ Etienne Delessert, a Paris banker and businessman with land in up-state New York and long experience doing business in the United States, brought this difference between American and French law to the attention of potential investors, and wrote a long letter to P S du Pont explaining that it was the main reason why he and other French businessmen were reluctant to invest in the American companies. Victor tried to explain that there was really no risk involved because the American law was seldom invoked, but he was not very successful in dispelling the fear among French investors that they might become liable for debts in excess of their investment.

A minor difficulty in raising capital was the result of a decision made by Victor and one of the investors, Jacques Bidermann, that in order to buy one share of stock in the gunpowder company an investor had to buy two shares in Du Pont (de Nemours) pere et fils, et Compagnie. The advantage to this requirement was that it would provide the Du Pont (de Nemours) pere et fils, et Compagnie with capital to buy shares in the gunpowder company without using its own funds and enable the Du Pont (de Nemours) pere et fils, et Compagnie to become the controlling shareholder in the gunpowder company. The drawback was that it deterred investors who wanted to buy stock in the gunpowder company but who had no interest in Du Pont (de Nemours) pere et fils, et Compagnie, or who lacked sufficient capital to buy stock in both companies. When these defects became apparent, Victor abandoned this plan, but not, however, before several investors had withdrawn.

The balance sheet of the Du Ponts' efforts to raise capital in France for the gunpowder company shows that they received pledges of \$2,000 each from three investors, and were to receive from Du Pont (de Nemours) pere et fils, et Compagnie \$22,000 for eleven shares, although it was not clear at this point where the company would find this capital to invest in the gunpowder company. Even if it did the capital would be \$8,000 less than Irene had estimated was needed to buy land and build and operate his mill for the first year. He was sufficiently encouraged, however, to feel that he should push ahead with the plan to build a gunpowder mill in the United States. On April 21, 1801, he and the investors signed articles of agreement formally creating the gunpowder company, and Irene set out on his trip back to the United States.²¹

For E. I. du Pont 1801-1805 was a period of self-education about America and the gunpowder industry, hard work, lots of hard

work constructing his mill and perfecting the process of manufacturing, numerous frustrations and disappointments, and finally success. When he got back to the United States in July 1801, he undertook an intensive and thorough investigation of gunpowder mills, and carefully calculated once again his prospects of success in terms of the competition he would meet. What he learned was that domestic production of powder lagged far behind the demand and was inferior to powder imported from Europe. He saw that American machinery and equipment and labor were not only inferior but that their cost was much higher than in France.

Irenee also considered the prospects of the American gunpowder industry in the context of international developments and concluded that they looked promising. He anticipated a general rise in the cost of labor in Europe after the war, particularly in Holland, one of the major sources of powder sold in the United States; as a result the cost of imported powder would increase which would turn to the advantage of the American manufacturer. He was convinced that the United States would be drawn into the European war and that the American government would be forced to undertake a program of national defense. When this happened the government could no longer depend on foreign imports of powder to fill its needs. Irenee could not imagine that the President and the Congress would neglect an industry so vital to the national interest. He confidently expected that the national government would support and protect the gunpowder industry.

By the time Irenee had completed his survey of gunpowder mills he had decided that if he built a mill in which nearly all the labor was done by machine, if he bought raw materials on the world market at the same price as European producers, and if he introduced the advanced technology of the French mills along with skilled French powderworkers, he would be able to meet his foreign competition, and make a handsome profit. If the United States went to war he anticipated that the demand for gunpowder would greatly increase, the price would rise, and profits would be enormous. He knew from his visit to Essonne that a number of new machines were being developed to reduce the need for hand labor and to increase the speed and efficiency of production; when they became available to him his advantages over his competitors would be further increased. He would also have an advantage because he would not have the costs of transporting the powder from Europe. It was on the basis of such calculations, some of them it turned out were miscalculations, that E. I. du Pont made his decision to establish a gunpowder manufactory.

During the summer and winter of 1801 and into the spring of 1802 Irenee was on the road incessantly, inspecting every river and stream from New England to the Carolinas that held any promise as a site for a gunpowder mill. His preference finally was for a site somewhere in the New York-New Jersey area, and he was prepared to buy the Lane and Decatur mills in Pennsylvania if the price and terms of payment were within his resources. The owners declined to sell, however, and he began to look favorably at sites in Delaware on the Brandywine Creek near Wilmington. These sites had a number of advantages: the Brandywine was a fast stream

with a good fall of water the year round. There were numerous mills already successfully using its water power, and there was ample space for another mill; timber for construction of buildings and willows for charcoal were also plentiful. Sites he had inspected were all several miles from town so that an explosion would not endanger the general population. He also liked the countryside. There was much in the surrounding area to satisfy his botanical interests, and he had already found the hunting and fishing excellent.

In his choice of the Brandywine site Irenee was influenced by all of these things, but the decisive influence was the small society of French families living in the Wilmington area. His friend Colonel Iousard, who had once lived near Wilmington, introduced him to several of his fellow countrymen who had settled there. He found them to be a group of delightful people, preserving in a semi-wilderness a little bit of France, including instruction in French language and manners for their children. He was drawn to the area particularly by the Bauduy family. The Bauduy's had come to Wilmington from France after a stay in Santo Domingo. Peter Bauduy was a man of considerable wealth. He had property and business interests in Santo Domingo and he owned property in Wilmington. Victor thought he might be brought into the company to provide some of the capital for the construction of Irenee's mill. Victor also thought Bauduy would be an asset in the company because he could speak English fluently and was acquainted with businessmen in Wilmington, Philadelphia, and other cities in the area who would be helpful to Irenee. Victor's enthusiasm about the Bauduy family and the French environment in Wilmington finally led Irenee to buy Jacob Broom's farm on the Brandywine Creek in what is now Greenville as a site for his gunpowder mill.

Irenee was not as convinced as Victor of the necessity or the wisdom of taking Bauduy into the company. When Bauduy approached him about investing in the business he put him off. But after Irenee was settled in Delaware and had begun improvement of the site and construction of the mill a financial crisis developed that led him to change his mind. The European stockholders who had pledged money for the company failed to come forward as expected. The Du Pont's efforts to interest other French businessmen in the company had not met with success. Funds that were supposed to be available from Du Pont (de Nemours) pere et fils, et Compagnie were being used by Victor du Pont to finance his own commercial business in New York. Irenee began to fear that without additional financial resources he might have to abandon his company.

Once Irenee had decided to seek American capital he had no difficulty in finding people interested in the company. William Hamon, a Frenchman living in Wilmington who had assisted him in the purchase of the mill site, and Archibald McCall, a prosperous Philadelphia merchant who had handled business for Du Pont (de Nemours) pere et fils, et Compagnie, were prepared to buy shares and become partners in the business. Victor, ever ready with ad-

vice, urged Irenee to take McCall in as a partner; he told his brother that because of the certainty of war an American partner would be an asset--he would shield Irenee and the company from prejudices against foreigners. Irenee reluctantly agreed to sell shares to Hamon and McCall, only to find that they demanded major changes in the organization and management of the company, changes which would jeopardize his control. Irenee refused to accept their conditions and the two men withdrew. By that time Irenee and Victor had negotiated the sale of two shares of stock to Peter Bauduy whom they subsequently sold two more shares. With four shares Bauduy became a major stockholder, second only to Du Pont (de Nemours) pere et fils, et Compagnie.

In the short run Bauduy's entrance into the company was fortunate. He solved Irenee's immediate financial problems by providing capital and short term credit at the Bank of Wilmington for construction of the mill; he handled some of the routine internal business affairs, such as keeping the accounts, hiring workmen, buying supplies and equipment, and he assisted Irenee in his personal life, such as arranging for his naturalization as a United States citizen. Irenee was thus free to concentrate on the construction of the mill.

In the long run the gunpowder company was nearly wrecked by Bauduy's partnership. Irenee and Bauduy never hit it off well. In sharp contrast to Irenee, Bauduy was a bluff, friendly, aggressive, extroverted man, something of a braggart. He valued his partnership in the gunpowder company partly for the prestige it gave him as a manufacturer, and partly for the large profits he expected. But personal incompatibility was not all that lay behind the argument that soon developed between the two men, although it contributed to its bitterness. Irenee and Bauduy were in basic disagreement about the purpose and function of the mill. To Irenee the gunpowder company was a highly personal venture. He saw it as the instrument for rehabilitation of the family fortune and for the preservation of the integrity of the family name. Of all the Du Ponts Irenee had been most seriously affected by the disintegration of the family following emigration to the United States; he was determined to bring the family back together again and he saw the gunpowder company as the instrument to achieve that goal. Irenee was building for the future, thus he was willing to sacrifice present profit for future gain. For example, he constructed the mill to last, and invested capital in land and equipment for future expansion before the first mill was even completed.

Irenee's American partner shared none of these attitudes. More interested in short term profits, Bauduy urged speedy construction of the mill and maximum production of powder without regard for soundness of construction, quality of powder, reputation of the mill, or future expansion. He soon grew impatient with Irenee's management of the company and attempted in characteristically brusque and tactless ways to influence company policy in line with his views and interests.

Resolution of differences between the two partners was complicated by differing conceptions of business organization and

rights of investors. Bauduy claimed that when he brought into the company he acquired full rights of partnership and therefore should be involved in establishing the goals of the company and in its management. He was determined to force Irenee to recognize him as an equal partner. Bauduy was a stubborn and resourceful man. He knew that Irenee needed his capital and credit to complete construction of the mill, and was therefore in no position to oppose him.

Irenee brought with him from France a conception of the company different from the one held by Peter Bauduy. He considered Bauduy "not an associate or partner, but a sleeping partner, to whom he would give an accounting and who would have a further share in the profits in return for his industry." Victor explained to Irenee that while "There exists in France a kind of sleeping partner of which there is no idea in the American mind," in the United States, "men and partners are equals, or clerks and masters." Victor, who sought the advice of Alexander Hamilton and other lawyers in New York on this subject, assured Irenee that in the United States Bauduy was indeed a full partner, and as such had a right to share in the formulation of company policy and in management of the company. Victor warned his brother that Bauduy's claims would be sustained by the courts if the disagreement ended up there. In the beginning Irenee had no intention of accepting his brother's interpretation; to do so would jeopardize his control of the company.

Irenee's response to Bauduy's conduct was conditioned partly by his own precarious role in the company. He was not himself a stockholder, except as a member of Du Pont (de Nemours) pere et fils, et Compagnie, and he was sensitive that his position as manager rested upon a single clause in Article 4 of the company charter: "E. I. Du Pont is entrusted with the establishing of the said factory and superintendance of the same." His fears of the consequences of losing control or of being ousted from the company were fed by memories of a decade of failures in France, by the recent collapse of his father's plans, and by his isolation in a remote section of a foreign country among people whose language he could hardly speak. He thought that McCall, and possibly Hamon, disappointed in their efforts to invest in a profitable business on their own terms were now combining with Bauduy in a scheme to seize control of the company.

The hostilities between Irenee and Bauduy simmered beneath the surface for several months, and finally boiled up into full view when a name for the company was considered. In the beginning the partners referred to the company simply as the "Societe" or "the Association." Victor first raised the subject of a formal name when Irenee wrote to him on April 8, 1804, that construction of the mills was completed and manufacture of gunpowder would begin in a few days. Victor replied: "I am going to occupy myself with the sale of your powder and I hope to dispose of more than you can make--at least for some time. There should be a dignified announcement in the papers. What do you intend to call it? It seems to me that this might do. E. I. du Pont de Nemours Gun Powder Manufactory, Wilmington, Delaware."

This name was unacceptable to Bauduy. He proposed instead that the name be "Irenee DuPont & Co." "Under the modest mantle of Co." he wrote to Irenee, "I can exist with dignity and you, my friend, will not be confused with the head workman." Irenee response was an unequivocal "No!" "To create a double head under the name of Irenee du Pont & Co. (supposing I had the authority to do so)," he wrote to Bauduy, "would involve the possibility every day of one of us doing things that might displease the other and would lead to dissension and inevitable break." Bauduy was just as stubborn as Irenee. He angrily notified Irenee through Victor that unless all his demands, including his name for the company, were accepted he would end the partnership. He noted that while he had the right to insist that all company business be conducted under the name of "I. Dupont de Nemours, P. Bauduy & Comp." he would settle for the name "Irenee Dupont de Nemours & Co." Unless Irenee agreed to this he would publish a notice in the newspapers:

Whereas certain Articles of copartnership were executed the 25 August 1802 between E. I. Dupont de Nemours & Co. and Peter Bauduy in which the name of the firm was not settled the public is hereby informed that in order to avoid mistakes in any future application to the company they must address E. I. Dupont de Nemours, P. Bauduy & Co. as all the transactions of the company will hereafter appear under that title and as the parties concerned will not consider themselves bound by any contract which may be formed under any other signature.

Victor, from New York where he was being inundated with letters from Irenee and Bauduy who had reached a point of such bitterness that they no longer dared talk or write to each other, finally got the two partners to arbitrate their differences. Victor was at his best in a situation requiring tact, patience, openness. He urged his brother to "forget all; be the first to forgive the offenses and the threat of a law suit; show your own goodness and strength." More to the point, he warned Irenee that the possibility of a law suit is "none the less real and the result not doubtful," Bauduy would win it. Victor warned his brother that "such a law suit would do you irremedial harm even if you won it." Victor talked Bauduy out of the lawsuit, and finally brought the two men together in New York City where he negotiated a new agreement defining more carefully Bauduy's role in the company. A name for the company was part of the agreement--"E. I. du Pont de Nemours & Co."

For Bauduy the new agreement and the new company name were victories; for Irenee they were humiliating defeats. He did not graciously accept them. He was still convinced that Bauduy, encouraged by McCall, Hamon, and possibly others, was scheming to force him out of the management of the company and eventually to exclude the French stockholders entirely. This belief profoundly affected his thinking about the future organization of the company, and his relations with the stockholders. For one thing, he de-

cided that Bauduy had to go so that there would no longer be divided leadership. To his father he wrote that he hoped to be able "to avoid a rupture until circumstances make me independent of him." For another, he was now determined to buy up the stock of all other shareholders and make the company a family owned enterprise. Only when he had accomplished this would his control of the company be secure. Family ownership and centralized management became fixed policies for Irenee. He never once wavered in his determination to carry them out.

The years of planning and construction of E. I. du Pont's gunpowder mills were crucial ones for the subsequent history of the company. During those years E. I. du Pont solved the problem of financing the construction of the mills by importing capital from Europe and by raising capital in the United States. He had not wanted to depend on American capital for fear that it would lead to loss of control of the company, but he was forced to do so when funds from Du Pont (de Nemours) pere et fils, et Compagnie were not available and the French stockholders refused to invest further in a company operating in the United States for fear that they might become liable for losses in excess of their limited investment. Once having decided to seek American capital E. I. du Pont had no difficulty in securing it. American capital was readily available for investment in gunpowder manufacturing. E. I. du Pont's major problems during the early years of the company were not financial.

During these formative years E. I. du Pont formulated policies that guided the development of the company during his lifetime--until 1834 and beyond. He made important decisions about the kind of powder he wanted to produce and the size and nature of his operation. On the basis of his knowledge of the French gunpowder industry and his investigation of American conditions he decided to produce high quality, specialized types of gunpowder to compete with the best American and imported powder. To overcome the high cost and low quality of labor in America he placed great emphasis on the acquisition of machinery and highly skilled workmen from France. He also developed during these earliest years his policy of experimentation, not only with machinery and equipment but also with the process of manufacturing, with a view toward introducing innovations in both areas that would enable him to improve the quality of his product and reduce his costs.

From the very outset he had a vision of expansion of his mill so that he would eventually produce powder for a large and varied market--national and international, private and public. E. I. du Pont had no intention of remaining a small, local company. He had immediately grasped the advantages of being big, and pursued a policy of expansion at every opportunity.

In the areas of ownership and management E. I. du Pont came to the conclusion, on the basis of his turbulent relations with Peter Bauduy, that family ownership and management were absolutely necessary to enable him to control the growth of the company. He first concentrated on reducing Bauduy's influence in the management of the company; next he moved at the first opportune time to eliminate him from the company entirely; then he began system-

atically to buy up the stock held by the European investors. The first twenty five years of the history of the E. I. du Pont de Nemours and Company is in part the story of E. I. du Pont's efforts to realize these goals. By the time of his death in 1834 he knew that he had succeeded.²² Had he failed the history of company throughout the nineteenth century would have been much different.

NOTES

The major sources for this paper are the Du Pont family papers in the Eleutherian Mills Historical Library. Research on the origin and early history of the E. I. du Pont de Nemours and Company has been supported by Grants-in-Aid from the Eleutherian Mills-Hagley Foundation and by Intramural Research Grants from the University of California, Riverside.

¹There is no modern, scholarly study of the early history of the E. I. du Pont de Nemours and Company. Several accounts of the company touch on its early history: B. G. du Pont, Du Pont de Nemours and Company, History, 1802-1902 (Boston, 1920); E. I. du Pont de Nemours & Company, A History of the Du Pont Company's relations with the United States Government, 1802-1927 (Wilmington, Delaware, 1928); George H. Kerr, Du Pont Romance, A Reminiscent Narrative of E. I. Du Pont de Nemours and Company (Wilmington, Delaware, 1938); William S. Dutton, Du Pont. One Hundred and Forty Years (New York, New York, 1951); E. I. Du Pont de Nemours & Company, the Autobiography of an American Enterprise... (Wilmington, Delaware, 1952); John K. Winkler, The Du Pont Dynasty (New York, New York, 1935); Max Dorian, The du Ponts From Gunpowder to Nylon (Boston, 1961). Important material relating to the early history of the company is contained in B. G. du Pont, trans. and ed., Life of Eleuthere Irene du Pont, from Contemporary Correspondence (Newark, Delaware: 1923-1927; 11 vols and index). Mrs. du Pont omitted from these volumes much material of value that remains in manuscript form in the Du Pont papers. The best material on particular aspects of the early company history are unpublished research reports in the Eleutherian Mills Historical Library, which have been prepared by Norman B. Wilkinson, Research Associate at the Hagley Museum or by students under his direction.

²See for example Francis Sergeant Childs, French Refugees Life in the United States, 1790-1800. An American Chapter of the French Revolution (Baltimore, 1940), pp. 45-47; Howard Mumford Jones, America and French Culture 1750-1848 (Chapel Hill, North Carolina, 1927), pp. 134-135.

³Dutton, Du Pont. One Hundred and Forty Years, pp. v, 22.

⁴This conclusion is based on a detailed study of the Du Pont papers for the period 1795-1820. Two interesting discussions of the causes and circumstances of the Du Pont family emigration are in Pierre Jolly, Du Pont de Nemours, Soldat de La Liberte (Paris, 1958), and Ambrose Saricks, Pierre Samuel Du Pont de Nemours (Lawrence, Kansas, 1965). Saricks' is the latest and the best of the biographies of P. S. du Pont de Nemours.

⁵Childs, French Refugee Life in the United States, 9-10; Durand Echeverria, Mirage in the West. A History of the French Image of American Society to 1815 (Princeton, New Jersey, 1957), pp. 175-176.

⁶The answer to P. S. du Pont's decision to emigrate lies in a consideration of his life-long interest in America, in Victor du Pont's long residence in the United States in the French dip-

lomatic service, and in the fact that following the coup d'etat in September, 1797, opportunities for a political or business career in France appeared dim. P. S. du Pont had visions of making a fortune in America using other people's money speculating in land and commerce and of returning to France.

⁷This series of events may be followed in Winterthur Manuscripts, 2/3 EMHL. See also Jolly, Du Pont de Nemours, pp. 186-188.

⁸B. G. du Pont, Lives of Victor and Josephine du Pont (Newark, Delaware, 1930), pp. 41-56, 58-59, 71-91; J. A. James, "Louisiana as a Factor in American Diplomacy, 1795-1800," Mississippi Valley Historical Review, I (June, 1914), pp. 44-56; S. E. Morison, "Du Pont, Talleyrand, and the French Spoliations," Massachusetts Historical Society Proceedings, 49 (1915-1916), pp. 63-79.

⁹Gerald W. Johnson, "The First Du Pont," Harper's Magazine, 183 (August, 1941), pp. 251-268.

¹⁰This evaluation is based on a study of E. I. du Pont's life that has included reading hundreds of his letters, memoranda, notes, personal and business records, studying the family correspondence and reminiscences, and of course reading the secondary literature related to the family and the E. I. du Pont de Nemours and Company for the early period. For E. I. du Pont's appearance I have relied on his passports and sketches of the various residents at Goodstay, New York by Mrs. Victor du Pont. In the secondary literature E. I. du Pont is treated less like a human being with defects as well as virtues than as an institution, and it is difficult to get any clear idea of what he was like. No secondary account mentions his birth marks. Mrs. B. G. du Pont's writings remain the best source for information about the personal side of E. I. du Pont. The Rembrandt Peale portrait, painted in 1831, was said to be a "fine likeness" of E. I. du Pont at age 61.

¹¹There is very little reliable information in the secondary literature about E. I. du Pont's early life in France. R. Dujarric de la Riviere's E.-I. DU PONT DE NEMOURS eleve de LAVOISIER (Paris, 1954), p. 157 ff, is perhaps the best source for Irene's education under Lavoisier, although it must be used with caution. Accounts by E. I. du Pont, his father, and his brother of the length of time E. I. du Pont spent as a student under Lavoisier and as an apprentice at Essonne vary from three to six years. The record shows that he became a student at the Arsenal in Paris in the spring of 1788 where he remained until April 1790, when he went to Essonne; he left Essonne late in 1791 to work in his father's publishing house.

¹²A good account of P. S. du Pont's company may be found in Saricks, Peirre Samuel Du Pont de Nemours, pp. 269-300.

¹³Jean Xavier Bureaux de Pusy, was the son-in-law of Mrs. Francoise Poivre, who had become P. S. du Pont's second wife on Sept. 26, 1795. He was trained as an engineer, entered politics at the time of the French Revolution, later became an army officer and one of La Fayette's aides. When La Fayette went into exile in 1792 he accompanied his chief, and shared his fate of imprison-

ment by the Austrians. He was released from Olmutz prison on Sept. 29, 1797. The French government refused to permit him to return to France immediately, and he joined with P. S. du Pont in his scheme to settle a colony of Frenchmen on the Virginia frontier. He came to the United States two months before the main contingent of Du Ponts to find a place for them to live and to investigate business conditions. Dictionnaire de Biographie Francaise, pp. VII, 690.

¹⁴The best source of information on Tousard is the article by Norman B. Wilkinson, "The Forgotten 'Founder' of West Point," Military Affairs, XXIV (Winter, 1960-1961), pp. 177-180. See also Stephen E. Ambrose, Duty, Honor, Country. A History of West Point (Baltimore, 1966), pp. 14-15, 19-22.

¹⁵The Acte de Societe" was "Fait et convenu entre les Actionnaires," in Paris, "le 28 Floreal de l'an VI de la Republique Francaise une et indivisible," (May 17, 1798). Two printed copies are in EMHL.

¹⁶The best account of this phase of the Du Pont's activities is in Charles W. David, editor, Journey to France and Spain 1801 by Victor Marie du Pont (Ithaca, New York, 1961). pp. ix-xxvi.

¹⁷Jean-Rene-Denis Riffault des Hetres (1754-1826). In 1798 he was named one of the three administrateurs generaux des poudres et salpetres; in 1800 he published Manuel du commissaire des poudres et salpetres. Biographie Universelle (Michaud) Ancienne et Moderne, XXXVI, pp. 21-22. Jean-Joseph-Auguste Bottee de Toulmon (1764-1815) also became an administrateur in 1798. In 1811 he wrote in collaboration with Riffault Traite de l'art de fabriquer la poudre a canon, and in 1813, L'art du salpatrier. He also invented several instruments for testing powder. Dictionnaire de Biographie Francaise, pp. vi, 1167.

¹⁸Norman B. Wilkinson has discussed E. I. du Pont's acquisition of French gunpowder machinery in "Brandywine Borrowings From European Technology," Technology and Culture, 4 (1963, pp. 7-10.

¹⁹Several scholars have written on the development of business organizations in France for this period. I have found most helpful: Davis S. Landes, "French Entrepreneurship and Industrial Growth in the Nineteenth Century," The Journal of Economic History, IX (1949). pp. 47-53; Judah Adelson, "The Early Evolution of Business Organization in France," The Business History Review, XXXI (1957), pp. 226-243, particularly pp. 235 ff. Development of the joint-stock companies in the nineteenth century has been treated most recently by Charles E. Freedman, "Joint-Stock Business Organization in France, 1807-1867," The Business History Review, XXXIX (1965), pp. 184-204. See also Rondo E. Cameron, France and the Economic Development of Europe 1800-1914. Conquests of Peace and Seeds of War (Princeton, New Jersey, 1961, pp. 33-35. George V. Taylor's "Some Business Partnerships at Lyon, 1785-1793." The Journal of Economic History, XXII (March, 1963), pp. 46-70, is helpful for the earlier period.

²⁰On limited liability in the United States see: Shaw Livermore, "Unlimited Liability in Early American Corporations," The

Journal of Political Economy, XLIII (1935), p. 674 ff; and Oscar and Mary Handlin, "Origins of the American Business Corporations," Journal of Economic History, V (1945), pp. 1-23

²¹There is no single detailed account in the Du Pont papers of the negotiations that culminated in the signing of the "Acte d' Association." From bits of information in E. I. du Pont's personal account books, and correspondence among the partners and others, I have been able to reconstruct part of the background of its preparation and some of its history. The investors who signed the document in Paris on April 21, 1810 were Jacques Bidermann, Adrien Cyprien Duquesney for Catoire, Duquesney et Compagnie, and E. I. du Pont for Du Pont Pere et Fils et Compagnie. Victor negotiated the sale of one share of stock to Louis Necker-Germany, brother of Jacques Necker, Minister of Finance in the 1780s, while Ireneé was on his way back to the United States.

²²W. David Lewis, "The Capitalization of E. I. du Pont de Nemours 1801-1834." (Unpublished research report, Eleutherian Mills-Hagely Foundation, 1964?).