## Gulian C. Verplanck's Account of Alchemy in Old New York

By C. A. Browne

NEW YORK SUGAR TRADE LABORATORY, NEW YORK, N. Y.

ITHIN the past few years a sufficient amount of documentary and literary material has been gathered in different quarters to prepare a volume of considerable size upon the history of alchemy in America. The idea that alchemists ever existed in the Western Hemisphere was confined for seventy years to romance writers such as Hawthorne, who in his story, "The Great Carbuncle," painted an imaginative picture of the alchemist, Dr. Cacophodel, which in its various details is characteristic of the literary type: "He wore a high crowned hat shaped somewhat like a crucible. He was from beyond the sea, had wilted and dried himself into a mummy by continually stooping over furnaces and inhaling unwholesome fumes during his researches in chemistry and alchemy."

With the publication of old papers belonging to the Winthrop and other New England families by the Massachusetts Historical Society, it began to appear that there actually were alchemists in colonial America. James Russell Lowell, in his essay on "New England Two Centuries Ago," published in 1865, was among the first to call attention to this fact. Later with the publication of other old documents such as the Diary of President Ezra Stiles, of Yale University, it was seen that the practice of alchemy prevailed, not only in New England, but existed in New York, Pennsylvania, and other colonies to the South. George L. Kittredge, in his life of "Doctor Robert Child the Remonstrant" (Vol. XXI. The Colonial Society of America, 1919), devotes twenty pages to a very excellent summary of early alchemy in New England. It is hoped that other investigators may do as much for the middle and southern Atlantic colonies.

Concerning early New York alchemists, there is a tradition preserved in the Diary of President Stiles of an old German, Dr. Benson, who in the early part of the eighteenth century was accustomed to leave his home in New York and, after going up to a cave in the mountains about West Point with his crucibles and other apparatus, would return with plenty of silver. He was a very learned man, dressed carelessly, and loved to play tricks upon boys by asking them to pick up globules of quick-silver. He was always uneasy about something and disappeared mysteriously about 1730.

The most detailed account of alchemy in old New York is given by that most versatile author, lawyer, teacher, and statesman, Gulian Crommelin Verplanck, in a literary historic annual called the "Talisman," which he published in association with William Cullen Bryant and others. In a series of New York reminiscences printed in the "Talisman" for 1829, under the nom de plume of Francis Herbert, Verplanck described in a most jovial style his impressions of the men and events of earlier days. He speaks of Hamilton, Jefferson, Talleyrand, Noah Webster, and many others. He mentions also meeting the famous chemist, old Dr. Priestley, whom he describes as "grave and placid in his manners, with a slight difficulty of utterance; dry, polite, learned and instructive in his conversation."

But it is in Verplanck's story of Jan Max-Lichenstein, the New York alchemist, that we are chiefly interested. Like Hawthorne's Dr. Cacophodel, "he was from beyond the sea" and spent his time "continually stooping over furnaces and in-

<sup>1</sup> Presented before the Section of History of Chemistry at the 66th Meeting of the American Chemical Society, Milwaukee, Wis., September 10 to 14, 1923.

haling unwholesome fumes." We will let the genial old writer describe the man in his own words.

Who would suppose that the exploded science of alchemy had ever its professor in the United States, where the easy transmutation of the soil of the wilderness into rich possessions renders unnecessary the art of converting dross into gold? Yet such is the fact. Everybody who has been a frequent walker of Broadway, in any or all of the forty years preceding the last five, must recollect often meeting a man whom at first he might not have particularly noticed, but whose constant appearance in the same part of the street at the same hour of the day, and the peculiarities of whose dress and person, must at length have compelled attention. He was a plump looking man, somewhat under the middle size, with well spread shoulders, a large chest, a fair complexion, a clear but dreamy eye, and a short, quick stride, and had altogether the signs of that fulness of habit which arises from regular exercise and a good appetite, while a certain ascetic expression of countenance at once forbade the idea that it owed anything to festivity or good cheer. His age, which never appeared to vary, might, from his looks, be estimated at five years, on the one side or other, of fifty. His dress was that of an old-fashioned, respectable citizen, educated before the age of suspenders, pantaloons, and boots, and who had never been persuaded to countenance those innovations of modern effeminacy. Notwithstanding its obsolete cut, it showed no signs of poverty, except perhaps to those who occasionally met him sweltering, with a laudable contempt for the weather, in a full suit of thick Prussian blue, or Dutch blackcloth, in a hot August day; or striding through snowstorm, in nankeen breeches and white cotton stockings in December. His name was Jan Max-Lichenstein; he was a Pomeranian by birth, who, early in life, going to Amsterdam to seek his fortune, became employed as a clerk in the great Dutch banking and commercial house of Hope & Company, where he proved himself a good accountant, and rendered himself useful in their German and Swedish correspondence.

Afterwards, by some accident or other, he found himself an adventurer at St. Petersburg. What led him to that city I cannot say; I have never heard it accounted for among his acquaintances in this city; at Amsterdam I forgot to inquire, and St. Petersburg I have never visited. But thither he went; and, having the good fortune to become known to Prince Potemkin, received an employment in his household, and finally came to be intrusted with the management of his finances. The prince. as everybody knows, like many others who have millions to dispose of, had constantly occasion for millions more; and, as everybody also ought to know who knows anything of his private history, when his funds were so reduced that he had nothing left but a few millions of acres and a few thousand serfs, took most furiously to gambling and alchemy. These liberal employments were divided between him and his treasurer. The prince rattled the dice-box in the gilded saloons of Tzarzko Zelo; and the Pomeranian, in spite of his remonstrances and his own better judgment, was set to compounding the alkahest, or universal menstruum, in the vaults under the north wing of Potemkin's winter palace. We soon get attached to the studies in which we are obliged to employ ourselves, and Lichenstein gradually found his incredulity yielding and a strange interest stealing over him, as he read the books, and sweltered and watched over the operations of alchemy. The result was, that at length he became a believer in the mysteries of imbibition, solution, ablution, sublimation, solution, sublimation, solution, solutio cohabation, calcination, ceration, and fixation, and all the martyrizations of metals, with the sublime influences of the Trine Circle of the Seven Spheres.

Lichenstein, however, with all his diligence and increase of faith, could neither coin gold nor get it out of the prince's tenants in such quantities as it was wanted, and he was now destined to learn how much the favor of the great depends upon the state of their stomachs. One morning Potemkin, after a run of bad luck, plenty of good champagne, a sleepless night, and an indigestible breakfast of raw turnips and quass, called upon him

for an extraordinary sum, and, not finding it easily furnished, flew into a passion and discharged him on the spot. As the prince never paid any debts but those of honor, Lichenstein knew that it would be vain to ask for his salary, and walked into the streets without a penny in his pockets. The late Chief Justice Dana, of Massachusetts, then our Minister at the Court of St. Petersburg, was about to return to America. Lichenstein had heard the most flattering accounts of the prospects held out in the United States to active and intelligent adventurers from the Old World, and readily believed all he heard, which, for a believer in alchemy, was no great stretch of credulity. He had some little acquaintance with the American Minister, in consequence of once or twice negotiating for him small bills on the bankers of the United States at Amsterdam. He threw himself upon his generosity, and requested a passage to this countrya favor which was readily granted. Here he was fortunate enough, almost immediately on his arrival, to be employed in the first mercantile house in New York to answer their Dutch, German, and northern correspondence, with a salary which, though not half so large as that allowed by Prince Potemkin, he liked twice as well, because it was regularly paid. He had scarcely become well settled in New York, when his old dream of alchemy returned upon him. He carefully hoarded his earnings until he was enabled to purchase, at a cheap rate, a small tenement in Wall Street, where he erected a furnace with a triple chimney, and renewed his search of the arcanum magnum. Every day, in the morning, he was occupied for two hours in the counting room; then he was seen walking in Broadway; then he shut himself in his laboratory until the dusk of the evening, when he issued forth to resume his solitary walk.

Year after year passed in this manner. Wall Street, in the meantime, was changing its inhabitants; its burghers gave way to banks and brokers; the city extended its limits, and the streets became thronged with increasing multitudes—circumstances of which the alchemist took no note, except that he could not

help observing that he was obliged to take a longer walk than formerly to get into the country, and that the rows of lamps on each side of Broadway seemed to have lengthened wonderfully toward the north; but whether this was owing to the advance of old age, which made his walk more fatiguing, or to some other unknown cause, was a problem which I believe he never fully solved to his own satisfaction.

Still the secret of making gold seemed as distant as ever, until it presented itself to him in an unexpected shape. His lot in Wall Street which measured 28 feet in front and 87 feet in depth, and for which he had paid 350 pounds in New York currency, had become a desirable site for a newly chartered banking com-

pany.

One day Lichenstein was called by the president of this company from his furnace, as he was pouring rectified water on the salt of mercury. He felt somewhat crusty at the interruption. as he hoped, by reverberating the ingredients in an athanor, to set the liquor of Mars in circulation; but when this person had opened to him his errand, and offered him \$25,000 for the purchase of his lot, his ill-humor was converted into surprise. he been offered \$5000, he would have accepted it immediately, but \$25,000! the amount startled him. He took time to consider the proposition, and the next morning was offered \$30,000 by a rival company. He must think of this also, and before night he sold to the first company for \$33,000. He was now possessed of a competency; he quitted his old vocation of clerk, abandoned his old walk in Broadway, and, like, Admiral Landais, "disappeared," but not, I believe, like him, to another life. I have heard that his furnace has again been seen smoking behind a comfortable German stone-house in the comfortable borough of Easton-a residence which he chose, not merely on account of its cheapness of living, nor its picturesque situation but chiefly for its neighborhood to Bethlehem, where dwelt a Moravian friend of his, attached to the same mysterious studies, and for its nearness to the inexhaustible coal mines of Lehigh.

## Obituary

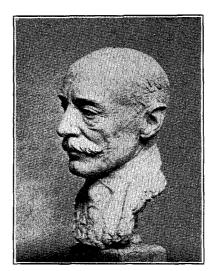
## Albert Reid Ledoux

N THE death of Albert Reid Ledoux at his home at Cornwall, N. Y., on October 25, exact analysis lost one of its leading exponents, many charitable institutions lost one of their most generous supporters, and America lost one of its leaders in the art of metallurgy. For many years identified with the industries of mining and metallurgy through the care with which his laboratory carried out exact investigations and analyses of ores and metals, Dr. Ledoux was closely identified with the American Institute of Mining and Metallurgical Engineers, which he served as president in 1903 and in various other important offices throughout his thirtyfour years' connection with it. Among his various other society affiliations was one of twenty-eight years as a member of the AMERICAN CHEMICAL SOCIETY.

The son of a Presbyterian clergyman, Dr.

Ledoux was born in Newport, Ky., on November 2, 1852. Later, the family removed to Cornwall, N. Y., which he considered home until his death. Here he studied in a school for boys founded by his father and entered the School of Mines of Columbia University with the class of 1874. Before graduation, however, he went to Berlin and Göttingen to study further, receiving his degree of doctor of philosophy from the University of Göttingen in 1875.

Upon his return to this country, he immediately entered the laboratory of William M. Habirshaw in New York, where he



ALBERT REID LEDOUX

practiced analysis and assaying. The following year he became chemist and director of the Agricultural Experiment Station of North Carolina. This connection of four years led to the formation of many very intimate acquaintanceships at the university of that State, where he was stationed, and later led to the establishment by Dr. Ledoux of an endowed fellowship in chemistry there.

In April, 1880, he established his first laboratory for analytical and consulting work in New York. This institution, under various designations, but always under his personal leadership, early made an enviable reputation for itself for exact analysis, especially in the field of nonferrous metallurgy. The greater part of the copper ores and mattes which have passed through the port of New York have come under its scrutinizing eye.

His unostentatious charities and his deeply religious character have left a marked

imprint upon his friends and the community in which he lived. In character he was genuine and frank, and made many friends. His hobby was the woods and the treasures to be found on long walks through them. In the circle of mining and metallurgical engineers in which he delighted to move, he is remembered, not alone for his activities in forwarding the serious work of the institute, but for his deep sense of the ridiculous which he displayed at the less formal gatherings of that body as well. He is survived by his second wife and one son, who has been a member of his father's firm for many years.