

## ACTIVITIES OF W. J. M. GORDON.\*

BY JOHN URI LLOYD.

May I not repeat that Mr. Gordon practically introduced glycerin to the Pharmacopœia, that he made a great success of this industry, being in 1864 the



Establishment of "W. J. M. Gordon and Brother, Pharmacutists and Manufacturing Chemists." Cor. 8th St. and Western Row (now Central Ave.) Cincinnati, Ohio.

only manufacturer of glycerin in the Middle West, that his success led him to establish a factory devoted to its manufacture, and that the fortune he made thereby was largely swept away by reason of changes in business methods, whercin, grasping their opportunities, soap and candle makers turned their attention to the by-product of their business, making it impossible for Mr. Gordon to obtain his crude material (sweet water) in America. Depending upon crude glycerin from abroad, chiefly Germany, in a hopeless effort to continue in com-

petition with the new order of things, he was followed by disaster after disaster, as related herein.

But not without a struggle was he overwhelmed. Ever alert in action, his ambition being to be of service to American pharmacy as well as to himself, he turned his thoughts in other directions, in which his name is now scarcely known, outside the recollections of a very few who yet live. Let me continue with a brief account of his bromine experience.

Bromine was discovered by Balard in 1826, only thirty-six years before Mr. Gordon became active in the glycerin direction. In 1846, a Mr. Alter established the fact that bromine was a constituent of certain salt waters of America, especially those of Natrona and Tarentum, Pennsylvania. Later it was also found in the mother liquors of the salt works along the valleys of the Ohio and Kanawha Rivers, as at Pittsburgh, Pomeroy, Syracuse and Mason City. In 1860, bromine was but little known, and was but little used in medicine or for scientific purposes.<sup>1</sup>

About this time came the record-making articles of Professor Roberts Bartholow, M.D., of Cincinnati, who became conspicuous throughout the United States, by his contributions on the therapeutic uses of the bromides. At that date, Bartholow was in close touch with Mr. Gordon. The writer of these lines (John Uri Lloyd), then an apprentice with Mr. Gordon, was a student in Bartholow's special class.

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<sup>1</sup> Historical data are from Thorpe's *Dictionary of Applied Chemistry*.

Just before this, came the utilization of the mother liquors of the Stassfurt potash industry, by Mr. A. Frank, previous to which bromine had sold at an exceedingly high price, and was very impure. Following came the discovery of bromine in the "bittern" of the salt work of the Ohio, notably in Pomeroy and its vicinity. Who first established its presence there is to me unknown, but from near its very start Mr. W. J. M. Gordon, because of his connection with Bartholow as well as his watchful interest in pharmaceutical discoveries, became concerned. In connection with his glycerin industry, he entered the salt-works field of bromine, about 1865.

Very crude was the apparatus then used, and very wasteful was the process. Owing to fear of metal contamination, the apparatus was made of wood, with sandstone stills. The crude bromine produced was quite impure, the impurities being separated therefrom by manufacturers of the bromides.<sup>1</sup>

In 1885, a young man from Pomeroy, Mr. Charles C. Seebohm, attended the Cincinnati College of Pharmacy, where I then taught pharmacy. At my request, he wrote a description of the bromine method of manufacture, which he accompanied by illustrations of the apparatus then in use. Even at that late date, the distilling apparatus was very crude, being "rude stone chambers hewn out of blocks of native sandstone."

Mr. Gordon thus became renowned in Cincinnati and elsewhere as first hand for supplies of bromine and the bromides. The principal package of bromine was then the quart, glass-stoppered bottle, in which the product was shipped from the bromine works to the manufacturers of bromides, of which Gordon then made a feature in his Cincinnati laboratory. Probably because of his efforts, about 1868, the price of bromine broke, even in Germany, Gordon shipping large quantities of potassium bromide to that country. In this came a great business disaster to Mr. Gordon, just antedating his glycerin troubles. The return to him of a large consignment (or consignments) of potassium bromide that had been refused entrance to Germany on account of impurities contained therein, distressed him mightily. Whether there was a competitive business as well as a scientific one, matters little. Gordon's reputation as a potassium bromide manufacturer was wrecked. The manufacture of bromides passed altogether into the hands of other well-known manufacturers of chemicals, in America.

Not without a struggle did Mr. Gordon give up in the bromide direction. He turned his attention to the incoming salt works in Michigan, hoping thereby to retrieve what he had lost, but without avail. The details of his efforts in that field are to me practically unknown.

Strange, is it not, that this pharmacist, whose establishment was second to none other (or at least to but one) in Cincinnati (see illustration) should, in needless enthusiasm, have gone outside the apothecary's business, in these two very conspicuous directions, in both of which he was dependent for his crude material supplies upon others who were alert for opportunities. These supplies being debarred him, after he had pioneered an industry, disaster followed. But the story of his misfortunes is not yet finished.

When natural gas was discovered, or at least before it became very important,

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<sup>1</sup> See *American Druggist*, July 1884, and PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, 1885, pp. 223-225.

Gordon conceived the idea of making lampblack by the incomplete combustion of natural gas. Possibly the idea came to him from the outside, possibly he was himself the originating pioneer. At any rate, he entered into the lampblack industry, in competition with the product, being made then, chiefly from rosin. Whether it was because of incomplete processes, or by reason of mismanagement, matters little. He piloted the way to great after-opportunities, in which it was understood that fortunes were later made, but by others than himself.

Came then another, and a very black disaster it was to Mr. Gordon, whereby his now attenuated fortune was wholly swept away, together with that of his brother, O. F. Gordon. They conceived the idea of making wood alcohol, acetic acid, the acetates and other by-products of the destructive distillation of wood. A plant was established on the banks of the Ohio River above Cincinnati, opposite the suburb, Columbia. A large boiler was installed under which a fire could be made. Pipes were affixed thereto, leading to various tanks and containers. The boiler was filled with cord-wood, willow and white poplar being preferred. The industry thus established in a very crude way gave good promise, the charcoal remaining in the boiler being sufficient, in the opinion of Mr. Gordon, to pay all expenses. Very distinctly visualized in my memory is this crude plant. Whether the industry proved altogether a failure or not, or whether it was sold and the right of manufacture transferred elsewhere, is to me unknown. At any rate, Mr. Gordon, for a considerable time, was afterward concerned in the sale of wood alcohol made elsewhere.

Strangely enough, at the very time of these adventures outside the field of an apothecary, Mr. Gordon let slip an opportunity, strictly pharmaceutical, that came within his very grasp. In 1865, a material that then seemed likely to be of as little concern as was the least of many products of the vegetable kingdom then under process of manipulation in his laboratory, was introduced by a man named Pond, as "Pond's Extract of Hamamelis." Mr. Gordon was offered the purchase right to its manufacture, but declined. Mr. Hearst, a young man then traveling for Gordon, visioned the opportunity it presented, purchased the right to the manufacture of "Pond's Extract of Hamamelis," and made thereby a fortune. The detailed story of that drug, which dates back to its use by the American Indians, antedating the arrival of the white man, is of exceeding interest. This, however, out of place here, I have fully recorded in my unpublished notes in the history of "Witch Hazel."

Summing it all up, whoever will review the activities of this pharmacist-apothecary of Cincinnati and his contemporaries, will probably discover that Mr. Gordon was typical of the self-sacrificing, ambitious, visionary, pioneering apothecaries of old, who, having served well their times, have been brushed from sight in the passing along, by those curious seemingly unnatural bedfellows, the ultra-scientific and the commercial worlds.

May not a great lesson, applicable to parties establishing the values of remedial agents, wherein they depend for crude materials upon those who may be themselves concerned in that direction, be drawn from the failures of Mr. Gordon? Is not "Big Business" still alert to its opportunities? Does not the motto "*Consider well the end reaction*" still apply to him who discovers or develops anything useful?