DR. JOSEPH CARSON, CHAIRMAN OF U. S. P. REVISION COMMITTEE, 1870.*

BY CHARLES H. LAWALL.

Dr. Joseph Carson was the son of Joseph and Elizabeth (Lawrence) Carson. He was born in Philadelphia on April 19, 1808. His parents were of Scotch ancestry. He received his early education in two of Philadelphia's famous private schools (White's School and the Germantown Academy), after which he graduated as an A.B. at the University of Pennsylvania at the age of 18. He entered the employ of the wholesale druggist, Edward Lowber, and in that environment became interested particularly in botany, through the crude vegetable drugs which he handled.

In order to gratify his desire for a scientific education he again attended the University of Pennsylvania, where in 1830 he received the degree of M.D., as, at that time, it was only in medical courses that the natural and physical science teacherswere available. His medical preceptor was Dr. Thomas T. Hewson, who had taken him in as a medical apprentice, as was commonly the practice in those days.

DR. JOSEPH CARSON.

Immediately after his graduation in medicine, he became a resident physician at the Philadelphia General Hospital, then known as Blockley. Here he remained for a year, after which he spent several years as surgeon on an East India Merchantman, gaining much professional skill and making a collection of many interesting scientific specimens.

Upon his return he became lecturer on Materia Medica and Pharmacy in the Philadelphia College of Pharmacy, succeeding Dr. Robert Egglesfield Griffith in that chair. He also lectured at the Philadelphia Medical Institute from 1844 to 1848. In 1850 he resigned his position at the Philadelphia College of Pharmacy and accepted a similar chair at the University of Pennsylvania, which he held until 1876. He retired from teaching and became *Professor Emeritus*.

During his teaching years at the Philadelphia College of Pharmacy, he had prepared a notable work on medical botany, published in 1847, in two volumes, illustrated with 100 colored plates.

Coincident also with his teaching years at the Philadelphia College of Pharmacy he was editor of the *American Journal of Pharmacy*. During this period he contributed 76 original papers, and also had the satisfaction of training as his editorial assistants two young men, both of whom became associated with him on the faculty of the college. One of these was Robert Bridges, professor of chemistry from 1846 until 1879; the other was William Procter, Jr., now known and revered as the "Father of American Pharmacy."

Among other literary works was his "History of the Medical Department of the University of Pennsylvania," written in 1869 and containing sketches of the

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lives of deceased professors from the time of its founding in 1765. He also edited *Pereira's Materia Medica.*

Dr. Carson had many activities outside of his teaching and literary work. For seventeen years he was the curator of the American Philosophical Society and for some years librarian of the Academy of Natural Sciences, to whose botanical collections he made many contributions. He was one of the founders of the American Medical Association and a president of the Philadelphia County Medical Society.

In 1870 he became both president of the U. S. P. Pharmacopœial Convention and chairman of the Revision Committee for the succeeding decade.

The revision over which he presided was the last one in which the members of the medical profession were in the majority, and the 1870 U. S. P. was the last one to be encumbered with many difficult formulas and to have very few tests for identification and purity.

THE CENTENARY OF CHLOROFORM.

Chloroform was discovered in 1831 by Samuel Guthrie, Baron von Liebig, and Eugene Soubeiran. Guthrie named his product "chloric ether;" Soubeiran, "bichloric ether;" Liebig, "trichloride of carbon;" Dumas, in 1834, gave to it the name of "chloroform."

Part of the following is abstracted from an article by Ossian Guthrie of Chicago in the *Western Druggist* for February 1894. Records indicate that Guthrie has a prior claim, certainly not later than October 1831, and records show that his discovery was probably made in May of 1831. The method of manufacture is described by Dr. Guthrie, in his own language, as follows:

"Into a clean copper still put three pounds of chloride of lime and two gallons of well-flavored alcohol of sp. gr. 0.8444 and distil. Watch the process, and when the product ceases to come highly sweet and aromatic remove and cork it up closely in glass vessels. By redistilling the product in a great excess of chloride of lime, in a glass retort, in a water bath, a greatly concentrated solution is obtained. This new product is caustic and intensely sweet and aromatic. By distilling solution of chloric ether from carbonate of potash the product is concentrated and refined. The remainder should be distilled off for a new operation. These proportions are not essential—if more chloride of lime be used, the ethereal product will be increased; nor is it necessary that the proof of the spirit should be very high, but I have commonly used the above proportions and proof, and have every reason to be satisfied with them. From the above quantity I have usually obtained about one gallon of ethereal spirit." (Note.) "The affinity of chlorine to lime is so weak, and to alcohol is so strong that the chlorine is all taken up long before the distillation is over; hence, the absolute necessity of watching the process so as to know when to set aside the ethereal portion."

This is practically the description given in the U. S. Dispensatory for 1845 on page 1241.

Dr. Guthrie supplied his product to Professor Silliman and also to Dr. Eli Ives, one of the faculty of Yale College. The latter became greatly interested and administered it in various cases and published an account of his administration and the results in the *American Journal of Science and Arts* at the close of the year 1831. Among Dr. Ive's patients was a consumptive to whom he administered by inhalation the first chloroform ever administered in that manner; Simpson, however, was the first to use it in surgical practice.

Dr. Guthrie was led to prepare chloroform by his peculiar process from noting a passage in Professor Silliman's "Elements of Chemistry," which refer to the chlorine ether of the Dutch chemists as being a grateful diffusible stimulant when properly diluted. He supposed that he had fallen upon a cheap and easy process for obtaining this long-known ether without being aware that in reality he had obtained a new compound. The "U. S. Dispensatory" (1845) gives its medical properties in the following: "It acts as a diffusible soothing stimulus in the same manner as sulphuric ether but with this decided advantage, that when sufficiently diluted it possesses a bland sweet taste which renders its administration easy even to children. It has been used with advantage in asthma, spasmodic cough, the sore throat of scarlet fever, atonic quinsy and other diseases in which a grateful and composing medicine is indicated. Professor Ives and Dr. N. B. Ives of New Haven speak favorably of its effects. The dose for an adult is a teaspoonful diluted with water. In affections characterized by different respirations it may be used by inhalation. It is employed for medicinal purposes in alcoholic solution."

Samuel Guthrie was born at Brimfield, Mass., in 1782, where he studied medicine with his father, and also, later, in New York and Philadelphia. In 1803 he emigrated to Smyrna, N. Y., where he began the practice of his profession and also established a laboratory for the manufacture of explosives, supplying the Government with them. He was surgeon in the U. S. Army during the War of 1812, and invented the punchlock, replacing the flintlock musket. He died at Sacketts Harbor, October 18, 1848, aged sixty-six years.

PHARMACY IN CLASSICAL ANTIQUITY.*

BY LEO SUPPAN.

Pharmacy, in its origins, was associated with the idea of evil—an example of the passing of the connotation of a word into its opposite, for the pharmacist is now recognized as a member of society whose aim is the public good, and that not only in coöperation with the physician.

The very name "pharmacy" is suggestive of the original association, for the word *φάρμακον* always meant for the ancients "poison," and it was not until later, by a process of generalization that it became applied to drugs possessed of beneficial properties.

That poison should in the earlier periods of man's history be associated with the practices of magic and religion is but natural. Everything exerting power, be it in a great or in a minor measure, calls forth, in the primitive consciousness, fear. It may, and does become, therefore, a powerful weapon in the hands of the priest. We see this in the employment of ordeal poisons among the primitive tribes of Africa. In instances of this kind the use of poisons serves an ethical purpose and its use must, in the minds of simple people, be justified as in the end promoting some good, remote as that end may be.

But what can be used to promote good may also be turned to evil, and in this latter application the results may be so formidable and startling as to overshadow

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