"spirits," the nerves, the flesh and blood of the victim who has taken the poison. This explains the phenomenon.

Let us now step forward two centuries into the Twentieth. Science has changed the four elements of the ancients into many simpler bodies. In plants, certain complex basic substances possessing physiological action have been found. Among these bodies, still somewhat illusive and obscure, are certain ones called alkaloids. In Belladonna, the aklaloids named Atropine, Hyoscyamine, etc., have been found. These so-called alkaloids from Belladonna, in the Twentieth Century, produce the phenomena cited by Sickels in the Eighteenth Century.

Let us go back two hundred years, substitute the word "alkaloid" for Sickels' "vaporous sulphur" and re-read the chapters. Then the whole aspect is changed.

If we again move forward two hundred years, we will find that Sickels' "reasons" for the action of Belladonna fit in quite well with those of modern authority. In noting the powers and effects of Belladonna, Sickels, of course, did not have the knowledge revealed in the later researches into the pharmacology and physiological action of the drug. He notably fails to record the mydriatic action of Belladonna. Sickels' measures for the treatment of cases of poisoning by Belladonna are those cited by the "fathers of medicine." They contain nothing new. These measures, in many respects, are those still in use. As in Sickels' time, we have no specific antidote for the poisonous element in Belladonna.

Taken altogether, Sickels finds no place in medicine for Belladonna. He finds that other anodynes are more reliable and safer than Belladonna. He is not a modernist. "Therefore, we ought to be less solicitous to-day to discover new medicaments, choosing from the better and safer ones already known."

Sickels, with modesty, estimates the value of his dissertation when he states: "However paltry are the things which these pages contain, they are not, indeed, altogether worthless, nor will the scattered observations be without some utility to practitioners." Sickels' "Botanico-Medical Dissertation Concerning Belladonna" is of interest to the student of drugs.

(To be continued)

THE PHARMACIST'S SHOW GLOBES.*

BY AARON LICHTIN.1

History is one of the greatest heritages of the civilized races. A correct knowledge of one's national history and a proper retrospect of a country's ethical, cultural, economic, military, social and political problems is at the very foundation of true patriotism. Just as the horizon is widened and patriotism strengthened by a knowledge of national history, so does the knowledge of the past problems, struggles, defeats and victories of a profession such as ours—pharmacy—enhance professional pride and facilitate further progress.

What a wonderful panorama is unfolded by our profession's past. For some forty centuries it has been slowly and steadily stepping forward in the march of

^{*} Section on Historical Pharmacy, A. Ph. A., Miami meeting, 1931.

¹ The author of the paper illustrated his subject with many lantern slides—the article was presented by Prof. Louis Gershenfeld; only a few of the Globes are shown.



GALEN.

as such, where medicines were sold began to spread rapidly. Maimonides, the celebrated Jewish physician, in a letter, written in September 1199 says (1), "Then I attend to my patients, write prescriptions and directions for their various ailments." It is to be presumed that these prescriptions had to be filled by someone qualified in the practice of pharmacy.

The appearance of the drug store required some sign or mark to distinguish it from other stores. The necessity of a token of distinction makes the pharmacist's show globes a subject of con-

progress. Early in its history pharmacy was closely allied with medicine; in fact the same individual practiced both arts. LaWall tells us in his "Four Thousand Years of Pharmacy" that in the thirteenth century of the common era pharmacies,

The appearance of the drug store required some sign or mark to distinguish it from other stores. The necessity of a token of distinction makes the pharmacist's show globes a subject of considerable importance in pharmaceutical history. To appreciate the need of a distinguishing designation you must picture a shopping street of that period and the state of education of the shoppers. The streets—most of them—were narrow and

winding, no street lighting was available. At night a lantern was carried, illuminated by a candle or natural oil. The people who could read and write were few in

number, consequently places of business were designated by some sort of a token, more often than by a painted or printed sign; thus, we find the Inn of Adam and Eve, a hostelry in London, in 1750 distinguished by a sign of the two Biblical characters; the Lion Pharmacy in Odense, Denmark, established, in 1549, was designated by the sign of a lion; these marks served to help the shoppers recognize their goal.

Pharmacists, as a class, adopted as a sign the heads of Galen (second century A. D.) and Paracelsus (1439–1541).

"It was certainly from a noble spirit of doing honour to a superior desert, that our fore-fathers used to hang out the heads of those who were particularly eminent in their profession. Hence, we see Galen and Paracelsus exalted before the shops of chemists" (2).



PARACELSUS.

Another distinguishing mark for the pharmacy and one which may still be seen in some localities is the mortar and pestle.

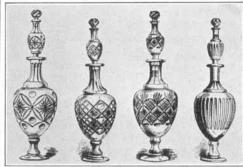
"One of the signs originally used exclusively by apothecaries was the mortar and pestle, their well-known implements for pounding drugs. Among the celebrities who sold medicines under this emblem was the noted John Moore, author of the celebrated worm powder, to whom Alexander Pope addressed these lines:

"How much, egregious Moore, are we deceived by shows and forms;

Whate'er we think, whate'er we see, all human forms are worms."

"His shop was in St. Lawrence Poultney Lane. Every week the newspapers contained advertisements proving, by the most wonderful cures, the efficacy of his powders."





Show vases of early nineties.

Grecian vases, double pineapple style of 1886.

A drug store sign exhibited at a signboard exposition held in London, in 1762, bore the picture of three gallipots—A gallipot is a glazed earthenware jar, covered

with parchment paper, used for storing solid extracts, ointments, etc. Among the early American signboards for a drug store was a picture of a carboy; such a sign hung at 73 Westminster Street, Providence, R. I., from 1843 to 1850 and later at 31 Westminster Street in the same city (3).

The beginning of the use of show globes as a distinguishing mark for a pharmacy cannot be definitely ascertained. The difficulty to find any information on these globes is best illustrated by a quotation from a letter from the Smithsonian Institution.

"We recently had occasion to make quite an extensive search for historical references pertaining to show globes. The search failed to disclose any authentic information on the subject. In fact none of the older and best known medical and phar-

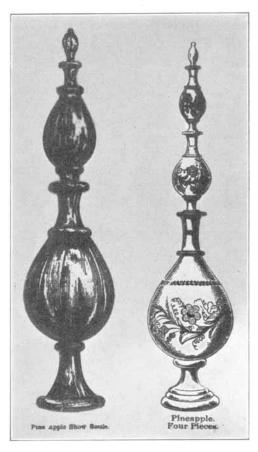


Show bottles of early nineties.

maceutical histories which we reviewed contained any information concerning these globes."

However, there are several conjectures which have been noted in regard to the origin of these globes which are worth relating. One is told by W. W. Figgis in JOUR. A. Ph. A., 8 (1919) 422:

"When Julius Caesar invaded Ireland, a boat was sent ashore from the offing to locate the most advantageous landing place. A spot was selected on a shelving shore directly opposite a certain apothecary's shop, in the windows of which were certain large bottles containing drugs,



Three-piece pineapple show globe of 1874; four-piece of early eighties.

which were in process of maceration, and the contents showed different colored liquids. On a promise of immunity as a reward, the arrangement was made that this apothecary would place lanterns behind these bottles to guide the landing of troops, which was made that night. The undertaking was successful, and to commemorate the same, an edict was issued by Julius Caesar that thereafter all apothecaries would be honored by being allowed to use colored carboys to identify their establishments."

Another conjecture is that the colored show bottles had their origin about the time of the great plague in London, in 1655, a time when people were compelled to reach the pharmacies without any loss of time. The colored light displayed served to guide the hurried messenger. No authentic information, however, was found to support any of these accounts.

LaWall states the origin of the colored show bottles to be as follows:

"Maceration had been employed for many centuries. Sometimes the directions for maceration required the operation to be conducted in the light for a certain number of days, and the large containers of tinctures in the process of manufacture, often two or three gallons in size, which usually stood in the pharmacist's front window evolved in later years into the show bottles of colored

liquid which characterized the drug store of the latter part of the nineteenth century."

The sight of the show globes in a pharmacist's window is credited with inspiring a Scotch youngster, James MacKenzie, to the study of medicine. He later became a celebrated cardiologist, and was knighted and appointed consulting physician to the King of Scotland. Sir James MacKenzie, as he is better known, born in 1853, was apprenticed as a youth, to a pharmacist with whom he remained till the age of 21 and then studied medicine in Edinburgh, although he maintained an active interest in pharmacy throughout his life. He died in 1925. Judging from his biography the druggist's show globes were in use about the middle of the nineteenth century (4).

The show globes are considered by the Pennsylvania pharmacy law as well as by the pharmacy law of other states as the recognized symbol of a pharmacy and regards the use of them by any other place of business as a violation; to quote from an official communication, Section 15, Act 163, reads as follows:

It shall be unlawful for any person, firm or corporation to use the title: "pharmacist," "assistant pharmacist," "druggist" or "apothecary" except as authorized under this act... or in any manner by advertisement, circular, poster, sign, symbol, insignia... refer to the place of business as a drug store, pharmacy, etc., unless the place of business is a drug store or pharmacy, duly licensed by the Board of Pharmacy.

"The board believes that it is rather well established that the show globes are an insignia of a pharmacy and regards the use of them by any other place of business as a violation of this section of the pharmacy law."

No matter how much one may delve into the origin and history of these beautiful colored objects, no real conception can be had of their appearance unless they are actually seen. A number of slides were prepared illustrating a number of various styles which have been used at various times. In collecting the material for these slides the writer was greatly helped by Joseph W. England, the Whitall Tatum Co. and L. S. Williams, a retail druggist from Baltimore who possesses the largest and most beautiful collection of these beautiful objects in glass in the country, fifty-one globes, to be exact.

The show globe is of the deepest significance to us worshipers at the shrine of Æsculapius. It identifies us at once as practitioners of an ancient and honorable profession; it gives us a legal right to a symbol which may not be used by any other class of business, but a right which may be lost through lack of exercise. The show globe should be restored to its former dignity.

REFERENCES.

- (1) "Maimonides," Yellin and Abrahams, 1903.
- (2) "History of Signboards," Hotten, 1860.
- (3) "Bulletin of the R. I. Historical Society," Vol. XIX, No. 2 (April 1926).
- (4) Chemist and Druggist, 107 (1927), 259.

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COST OF THE HOSPITAL PHARMACY.

We quote the following from the advertising message, of a large, well and favorably known manufacturer, in *Hospital Topics and Buyer*, for April, under the caption of "Stinting the Pharmacy."

"The average total cost of a pharmacy, including salaries, represents only about three per cent of total maintenance cost.

"Few hospital executives sanction the building of additions which do not reflect the latest ideas in design, layout and beauty. Few would not specify the best in apparatus and equipment; yet executives frequently turn to the drug department, so vital to the institution, as the place to begin paring down operating costs to meet deficits."

Edward W. Runyon, member of the American Pharmaceutical Association, since 1875, left New York on April 9th for a six months' trip to South America and Europe. His South American itinerary includes stopovers at Lima, Santiago, Buenos Aires, Rio de Janeiro and Beahi. From South America he will cross to Europe. Mr. Runyon has made these journeys for a number of consecutive years and, at his age, is quite an undertaking, but he enjoys travel and, especially, meeting his friends.

Editor Hugo Kantrowitz of the Apotheke Zeitung states that the rates for the European trip, which he has in charge, have been very much reduced.