In medicine, calcareous and siliceous sponges have never found a place. Only the felt-like sponges, such as the familiar bath sponge, have been employed. These have skeletons of spongin, which is remarkable for its large content of iodine. In some tropical species, according to published reports, the iodine content may run as high as 8 to 14 per cent, while seaweed from which commercial iodine is obtained, does not exceed 1.5 per cent. If, as is estimated by Stanford in Thorpe's Dictionary, the water of the Atlantic Ocean contains only one part of iodine in 280,000,000 parts, each pound of those sponges contains the total iodine content of almost forty million pounds of water. That this enormous amount of water could be circulated by the delicate flagellæ seems beyond the limits of reason. It has been suggested by John Uri Lloyd that the abstraction of iodine from the water may form an "iodine vacuum," so to speak, which is filled by the inrush of iodine extending from afar in the surrounding water. Thus the iodine may be depleted from water far from that which touches the sponge. Another theoretical explanation is the possible, increased iodine content of water in localities where sponges grow by the disintegration of the remains of kelp, sponges and other marine plants and animals. Or, it may be that sponges do not themselves abstract iodine from the water, but obtain it from the organisms they consume as food. Perhaps plants alone possess the power of abstracting iodine from the sea. Whatever the explanation, it seems beyond comprehension to understand the power of these animals to abstract such quantities of iodine or silica from the dilute sea-water solution.

SOME OF THE EVILS OF THE DRUG BUSINESS AND THEIR REMEDIES.*

BY JOSEPH JACOBS, PH.M., SC.D.

The business side of a pharmacist's life and career must ever be a subject of interest to our profession. Success or failure marks the difference between a condition attended by the contentment of recompensed labor and one that is "bound in shallows and in miseries."

If the measure of our service to society is the true criterion of the financial success deserved, may we not say that the "wavering balance" is not "rightly adjusted?" If so, what are the causes? What may be the remedies?

My observation is that no other business requiring such special preparation, difficult study and hard work is more meagerly repaid than that of Pharmacy. The commercial agencies accredit less than half of the retail pharmacists with a rating over \$5000.00, and should you tour our cities and towns you would observe few fine homes in the best residential districts owned by druggists. Your guide could easily point out many owned by lawyers, physicians, department-store owners, grocers, hardware merchants, bankers and contractors. Nor do many of their names appear on financial boards of directors.

The reasons for this condition are numerous. They grow out of adverse influences operating from the outside and from faults and errors existing within.

^{*} Read before Section on Commercial Interests, A. Ph. A., St. Louis meeting, 1927.

The prohibition laws being violated by the existence and operation of so many disreputable pseudo pharmacies, in many of our States of the Union, has reflected discredit on the legitimate stores, and thus diminished prestige and profits. Classed with these may also be named the "Soda Stand pharmacists," who cause injury. The wide spread evils of the "boot-leg" drug store are too well known to need comment here, but many would be surprised to know the number of "Soda Stand" drug purveyors. A reliable agent of mine reported to me that in the first three out of many he investigated he found a full stock of the most staple patent medicines and toilet articles.

On a personal visit to one of these "Stands," the owner was asked if he filled prescriptions. After asking me what was my trouble, he pointed to shelves loaded with many articles in the drug line, and said: "We have our prescriptions already filled." Signs over doors and on windows read: "Toilet Articles, Drugs, Soda, Cigars and Candy."

On the motions of their Boards of Pharmacy, Illinois, California and Michigan have enacted that no such stands, nor a general store within three miles of a drug store, can sell any medical preparation in a large list. Our Georgia Legislature has before it now a similar bill.

Nearly all the large and increasing number of Beauty Parlors carry a line of toilet articles, presumably made by makers of barbers' supplies. They also sell many staple brands. The local druggists should see to it that they pay proper licenses. And, if druggists intend to retain trade in men's toilet articles, they will have to do battle with the chain cigar stores, who prominently place them on their show cases and in their windows and insistently call attention of the customers thereto. We must meet this competition by better displays and more effectively pushing their sale to those who are more accustomed to buying such goods from drug stores.

Increasing numbers of peddlers are now invading our domain. It may be well for us to display in our windows warnings against these "fly by nights" as has been done by the Ohio Association under their Secretary, T. J. Wetterstroem, who sent out a framed sign effectually showing it would be well for the public to "Beware of the Peddler."

The Department Stores also are giving the druggists something to "give us pause" and awaken opposition. The manager of one of them told me in answer to my query as to his "mark up," on "ready to wear" that it was double and often more, even when the goods were bought under "extra dating" and ten per cent discount for cash. No wonder he could advertise a full line of standard toilet articles to be sold at less than cost to customers who would also probably buy some of his gowns and other garments in "ready to wear." Of toilet articles, a lady friend told me she bought a large supply (they were so attractively arrayed), almost "ere she was aware."

In a large town I was visiting last year, a drastic price war was going on in toilet articles between two department stores, and I was told by a friend in the drug business that when other reputable department stores did not handle any toilet articles, or sold them at fair prices, their own families and their friends bought goods from such stores, giving them the preference. One of the largest department stores in New York City, Hearn and Company, has advertised for

many years a slogan that they "do not handle groceries or drugs" and hence they get the friendly support from those occupied in these trades.

Another detriment to the welfare of the retail drug trade comes from the many hospitals and sanatoriums, both public and private. The number of them is constantly increasing. With their supplies of tax-free alcohol and large number of medicinal preparations bought at especially low prices from the manufacturers, they have advantages over the retailers.

This might be borne with some complaisance by the public and the druggists, if the patients were receiving a real benefit by their practices. But, the contrary is true—the patients, in many instances, are charged from two to four times the regular price of prescriptions compounded by registered pharmacists. I was much surprised by a statement made to me by a steward of one of these hospitals. He said that patients were required to use two pints of alcohol in baths, per day, at the price of \$2.00 a pint, which had cost \$1.00 a gallon. Dakin's Solution was charged for at \$1.00 a pint, when it had been made for 10c a pint; silver nucleinate was dispensed at the rate of \$10.00 a pint. The steward said that in this institution about fifty other prescriptions were daily compounded for the patients and these rendered in the bills at similar exorbitant figures.

If this evil is not corrected, the public might be justified in placing these institutions under a board similar to our Public Utilities Board or empower State Boards of Health to regulate the charges. The Government ought to, at least, require a tax on their alcohol, except in cases of purely charitable hospitals.

As to taxes in general, the cities, States and general Government ought to lessen the taxes both in kinds and amounts now required of pharmacists. About thirty different kinds of tax exactions tax also, our patience, our time and our profits to much too great an extent. The remedy is for our Association to imitate the physicians and have some member of our Association in Congress to keep alert to remedy the evil there, when necessary; and we should put in motion efforts in our State Legislatures and City Councils to correct them locally. Georgia is fortunate in having six members of our profession in the present General Assembly, now in session, and they are active in this connection.

The relations between the physicians and the pharmacists should be friendly and cordial. Their work is for the same purpose—the conservation of health and the prevention and alleviation of human suffering. They ought to, and could be, mutually, financially helpful to one another. But fairness will arrest the steps of the physicians when they attempt to go so far as to cut from our lists everything unless specially labeled under their direction. Unless halt is called in this, it may soon be unlawful for a customer to buy Oil of Clove for his gums or to apply Iodine to his soft corns without a prescription.

Let us hope that a war may not be started in which we might have to insist that their prescriptions shall contain a history of the diseases for which they are given, to prevent the medicine chests of patients from being filled with half-used concoctions liable to be taken by mistake. The boxes and bottles they inveigh against at least convey a definite statement of the ailments for which they are intended.

If pharmacists, however, "hang their heads and a' that," indulging an "inferiority complex," instead of deserving and inspiring and receiving equal

respect with the physicians, we may expect to be over-ridden in this and in many other matters.

While thus descanting on our woes, I mention the fact that many of our young men, who would make good executives and managers, insist on opening stores of their own on insufficient capital and flimsy bases of credit; and with little business acumen to guide them. The result is an overcrowded condition; and, while these men drag along on profits less than a good salary would yield, and which they are capable of earning without risks, really competent drug-store owners are brought into useless competition, and the bankrupt courts are furnished much unnecessary business.

Fifty-four thousand drug stores in the United States would seem to be too large a number. This tendency is due to the fact that too many young men, at this time, are insufficiently educated to know the full duties and requirements that go to make a pharmacist successful in his business.

Public Health, as well as the good of the drug business, demands that our colleges turn out graduates of a more advanced and finished type and with a higher degree of special commercial training than short courses can produce.

It would be especially beneficial if every graduate, besides other training along business lines, should know how to make and exploit one or more original or individual preparations suitable to his clientele, and be highly trained in merchandizing in addition to his technical and scientific courses.

When they establish their own stores they would know that it is better to make one original preparation that did not simulate some advertised article, and make it by the exercise of brains and ingenuity, than to attempt many, not unique or original. Imitations do not appeal to the public. So, also, he should know it is not good practice to push a line of goods marked in his name, but made by some other manufacturer. He should know, by making them himself, that he places his "guinea stamp" only on the true "gowd" of genuine ingredients, tested and unadulterated.

A Word about Buying Goods.—Caution should be exercised in buying merchandise offered by unknown salesmen or whispering venders. About twenty years ago in Atlanta, Georgia, nearly every drug store in the city was overstocked with a number of well-known advertised proprietaries. The store that was free from these imitated articles was the one that the other druggists felt a grievance against, but this store did exercise caution in buying its merchandise either direct from manufacturers or from responsible dealers.

Another contributing cause of drug-store inefficiency and failure—a very conspicuous one—is faulty and inconvenient arrangement of fixtures, furniture and the display of facilities of the store. This is bound to be accompanied by disorder, dirtiness and bad surroundings in the prescription department. The clean and orderly store invites and arouses the owner to be more alert in stimulating business and clerks to work with more comfort and efficient energy. Such will be the effect, also, of having clean, fresh goods, preferably nationally advertised articles, in tastefully arranged groups and series on display counters and tables and in show windows.

I will only say relative to the much discussed subject of "cut prices" that there are times when it is well to reduce the sale price in the face of competition or when

space is needed for the quick turnover of some line of goods in large and urgent demand. And, on the subject of standard prices as a regular course of trade, it can be expected that chain drug stores will not oppose any fair law, should its passage be secured without the process of heaping abuse on their heads. That will naturally be opposed and resented.

For every one of the evils I have cataloged hoping to find a remedy, there could be named, on the bright side of the picture, a feature of Pharmacy to make us happy and bring content. All who have its true interests at heart and have spent their lives worthily in the profession know that its lofty character makes it bring to its devotee the common pleasures of life, if worthily pursued with good judgment, energy and high intentions. And it can be made the foundation for competence and even wealth.

A COLLEGE COURSE IN DRUG STORE DISPLAY.*

BY EDWARD H. NILES.

This will relate an experience, rather than set forth a course for others to follow. When we received word that the National Research Bureau intended to determine the sales value of windows, we began to wonder just how our graduates could coöperate. We began a study in stores, and soon learned that few owners or managers had any technical knowledge of window dressing, but at least ninety per cent considered it a useful knowledge. A very frequent query was, "Why don't you teach something practical about display at the college?" We were fortunate in having available a room about twenty feet by thirty-five feet; a corner room well lighted and located. We decided to devote this to display work.

Our first step was to provide two store windows. We could find little information as to size in literature, but calling to our aid some practical decorators, we learned that a window should be at least six feet high to give head room. The width is best when it will conveniently allow the back to be trimmed with standard crepe paper which is twenty inches wide; a little allowance should be made for lapping the edges. The back should accommodate an odd number of strips for symmetry of design. Evidently the proper widths for an ideal window would be 57, 95, 133, 171 inches, etc. We selected eight feet (96 inches) as our width and six feet six inches as our heighth; this latter figure allowed room for ceiling lights.

Having completed our windows, we wrote to a selected list of prominent manufacturers for displays, which of course were cordially presented. Our working equipment naturally included hammers, tacks, scissors and a good variety of crepe paper and some cloth.

Fortunately, we were able to obtain a qualified instructor, a man who had attended several Display Schools, and who had devoted two years entirely to drug store merchandise.

The most interesting thing was the reaction of the students. The course was offered without cost to the seniors as an elective for one semester and without credit hours. Every class member enrolled.

From the beginning the course included lectures and actual work with decorating materials. The manipulation of crepe paper in tubes, pleats, strands and

^{*} Read before Section on Commercial Interests, A. Ph. A., St. Louis meeting, 1927.