3	Accounts payable *end* of year		
4	Total amount of merchandise paid for		
5	Add lines 2, 3 and 4	$	
6	Inventory end of year of merchandise at cost		
7	Accounts payable *first* of year		
8	Add lines 6 and 7	$	
9	Total cost of goods sold (subtract line 8 from line 5)		$ .....
10	Gross margin (subtract line 9 from line 1)		$ .....
11	Total expenses including depreciation and bad debts		$ .....
12	Net Profit (subtract line 11 from line 10)		$ .....

Following is a simple and easily used method for recording the Balance Sheet of a drug store and calculating from it the net worth of the business.

Assets.		Liabilities.	
Cash in store	$	Accounts payable	$ .....
Cash in bank	.....	Notes payable	.....
Value at cost of merchandise stock	.....		
Present value of fixtures and equipment	.....		
Accounts receivable	.....		
Notes receivable	.....		
Total Assets	$	Total Liabilities	$ .....
Net Worth of Business		Subtract total liabilities from total assets	$ .....

PATENT AND PROPRIETARY MEDICINES—THE ECONOMIC EFFECTS OF THEIR PRESENT LEGAL STATUS.*

BY SAMUEL SHKOLNIK.[1]

STATUTORY PROVISIONS.

For a number of decades last past legislatures in every state of the Union have recognized the necessity of proper legal control over the sale and distribution of drugs, medicines and poisons and have passed pharmacy laws for the purpose. The protection of public health and safety was, of course, the underlying basis, motive and purpose, indeed the very legal justification, of all such laws. An examination of these laws will at once reveal that an exemption from their operation was created in the case of so-called "patent and proprietary medicines." These exemptions, while somewhat different in wording in the various state statutes, point to a common origin and seem to have been passed on, "ad valorem," from state to state, apparently with the tacit approval of the medical and pharmaceutical professions. The interested observer will further find that in most of these laws no definition is given for the term "patent and proprietary medicines," and that where a definition is given, it is generally so vague, unscientific and inconsistent, if

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not actually in conflict, with the letter, spirit and purpose of the other statutory provisions, as to render the whole law woefully inadequate as a public health measure to the extent and for the purpose intended, to say nothing about the absence of clarity of thought and failure to differentiate between the term "patent medicines," and "proprietary medicines," which, of course, add to the confusion.

One may well ask who is or what factors are responsible for the confused legal status of patent and proprietary medicines? Is it the efficiently organized giant patent medicine industry; or the poorly organized pharmaceutical profession; or the indifference and lack of interest in and apprehension of the subject matter on the part of the medical and pharmaceutical professions, or of the legislative bodies, or both; or is it a combination of any or all of these and, perhaps, other factors? However speculative the answer may be, one thing is certain and that is that the pharmacy laws of the various states are badly in need of revision and modernization so as to remove the apparent paradox originally created in them with respect to the attempted legal control and regulation over the sale and distribution of therapeutic agents, if public health and safety is to be really and effectively safeguarded.

PARADOX ILLUSTRATED.

A few illustrations will serve to illustrate the paradox. No one would dare contend that grocers, general merchants, variety stores and other retail outlets, other than drug stores, should have the legal right to sell at retail for medicinal use a concentrated solution of carbolic acid even though it be put up in packaged form and properly labeled as such by a registered pharmacist. Indeed, under most if not all pharmacy laws such retailers are prohibited from doing so, and yet, under these same laws the sale of a nationally, yea internationally, advertised germicidal solution containing in it a high percentage of Cresol (a compound even more germicidal and poisonous than Carbolic Acid) may be and probably is legally sold by them with impunity, as a so-called "patent medicine." The trade name of that product is, of course, known to all of you, so that it would serve no useful purpose to mention it. What is perhaps even more paradoxical is the fact that the sale at retail for medicinal use of the pharmacopœial preparation Compound Solution of Cresol, which is practically and substantially similar to, if not the same as, the well-advertised product just referred to, is under all of our pharmacy laws restricted to drug stores, regardless of whether the sale is made in bulk or in ready-packaged form. Nor would anyone say that a powerful heart depressant like Acetanilid should be sold at retail for medicinal use in stores other than drug stores, and yet a number of well-advertised effervescent salts and tablets containing in it appreciable quantities of Acetanilid are dispensed and sold promiscuously, but legally, for their therapeutic effect as medicines, at soda fountain stands, and more recently in taverns, cocktail lounges and bars. The mere fact that they are sold as so-called "patent medicines" under some secondary name, render the sales perfectly lawful within the letter, though not the spirit, of our pharmacy laws. Other familiar examples could be cited but they would only serve to emphasize the legal paradox.

EXEMPTIONS ILLOGICAL.

How can we intelligently and logically justify the statutory exclusive privilege or franchise granted to pharmacists in the compounding, recommending, dispensing

and selling of drugs, medicines and poisons, generally recognized as essential to the safeguard of public health and safety, and at the same time concede that the very same or similar medicinal products but in packaged form and marketed under some secondary name may be legally sold for medicinal use, under the disguise of "patent or proprietary medicines," without any legal restrictions whatever? Can it be logically said that the promiscuous sale at retail for medicinal use of such so-called "patent medicines" as, for example, Lysol, Bromo Seltzer or Formalin in retail establishments other than drug stores is less dangerous to public health and safety than would be the unrestricted sales in the same non-drug store outlets, at retail and for medicinal use, of such official preparations as Compound Solution of Cresol, Compound Acetanilid Powder or Solution of Formaldehyde, in packaged form and under their official names?

REVISION NECESSARY.

Laws never have been and are not now spontaneous creatures. Prevailing social, economic and political conditions have always been the forerunners of legislation intended to curb some existing social, economic or political evils or abuses. Our past experiences with the existing legal status of "patent and proprietary medicines," coupled with the need and desire for complete and adequate protection of public health and safety in the sale and distribution of all drugs, medicines and poisons for medicinal use, certainly ought to furnish sufficient reason and momentum for an organized move leading to the clarification or complete elimination of the loose statutory provisions which actually, if not literally, nullify the spirit, purpose and effect of our pharmacy laws. Fifty or sixty years ago, when national advertising was in its infancy and when there were comparatively few "patent medicines" on the market, the statutory exemptions relating to them were perhaps of less serious concern both to the allied medical professions and the public. Since that time, however, the number of so-called "patent and proprietary medicines" have been multiplying at a steadily increasing pace and in all directions, so that they are no longer confined to the old-time, harmless nostrums intended for minor self-medication. They now include hundreds of medicinal products and preparations advertised to the medical and pharmaceutical professions only and not to the public (for a time being at least); and they include numerous very potent and dangerous though useful therapeutic agents, the retail sales of which for medicinal use ought to be and must be confined to professional hands exclusively, if public health and safety is to be safeguarded at all. In recent years there has developed a tendency on the part of pharmaceutical manufacturers (the large ethical houses included) of putting out important official and other common medicinal products under some secondary name or trade name, and perhaps with some slight modification in formula, which may legally be sold in drug stores and non-drug stores alike, without any legal restrictions governing same whatsoever. It is of course a familiar fact that many of the so-called "patent medicines" of to-day were the ethical prescription proprietaries of yesterday and there is certainly nothing to indicate that this trend is not to continue, particularly where good business judgment, from the manufacturers' standpoint, of course, would dictate such conversion.

ECONOMIC EFFECTS.

The effects of these conditions are of course obvious. "Patent medicine"

stores, as distinguished from drug stores, and "patent medicine" departments in department stores, variety stores, dry goods stores and other non-drug store retail establishments have sprung up like mushrooms in every state of the Union. These conditions not only undermine and threaten the economic existence of the pharmaceutical profession, but encourage and promote self-medication and constitute a real menace to public health and safety. The examination, diagnosis and other professional services of the physician or dentist are frequently being waived in favor of fancily worded blanket recommendations contained in magazine and newspaper advertisements or forming a part of a popular hour radio program, featuring some "remarkable new discoveries for your health;" and many a pharmacist has seen his professional privilege of compounding and dispensing reduced to a mere clerical performance of wrapping up some particular highly advertised "ready-to-wear" cure-all. While the allied medical professions are the economic victims of self-medication, the masses of the lay public are the physical victims. Hundreds of persons in all parts of the country are killed, blinded, paralyzed and otherwise injured annually through the use of nationally advertised freckle removers, fat reducers, sex rejuvenators, ulcer cures, cancer cures, etc.—all "patent and proprietary medicines"—not to mention the recent Elixir of Sulfanilamide tragedies in which seventy-three innocent victims prematurely lost their lives.

RECENT COURT DECISIONS.

There have been comparatively few court decisions interpreting our pharmacy laws, but fortunately the courts in some of the more recent decisions, have recognized the insufficiency as well as the inconsistency and fallacy of the broad language used in the statutory provisions pertaining to "patent and proprietary medicines" and have interpreted them in a manner consistent with the spirit and purpose of such laws and with jealous regard for the public welfare. Some of the more important decisions in this regard are in the cases of: State *vs.* Zotalis, 172 Minn. 132, 214 N. W. 766 and State *vs.* Jewett Market Co., 228 N. W. 288, in which the Courts held that Aspirin is not a patent or proprietary medicine; State *vs.* Woolworth Co., 184 Minn. 51, 237 N. W. 817, in which the Court held that Milk of Magnesia is not a patent or proprietary medicine; State Board of Pharmacy *vs.* Matthews, 197 N. Y. 353, in which the Court in effect held that the sale of harmless household remedies, such as Tincture of Arnica and others, for medicinal use, may be prohibited except in the presence or under supervision of a licensed pharmacist; and Crescent Bottling Works *vs.* The Board of Pharmacy of the State of New Jersey in which the New Jersey Court of Errors and Appeals held that Duke's Magnesia Citro-Tartrate, a modification of the official Solution of Magnesium Citrate, is not a patent or proprietary medicine. The decision of the court in the recent Indiana case against Carrol Perfumers is also significant in that many so-called "drugless" drug stores and "patent medicine" stores may well be regarded legally as drug stores and subject to the pharmacy law regulations concerning the latter.

MUST ACT NOW.

We cannot and must not, however, stand by another fifty years and hope that the courts will clarify the situation by logical interpretation of the statutory provisions relating to "patent and proprietary medicines." If the consideration of

public health and safety is to be regarded as the only legal basis for pharmacy law enactments, and it must be, our laws should be revised so as to put an end to the free-for-all sale of drugs, medicines and poisons by those who are not qualified by education, scientific training and rigid State Board examinations, regardless of the fact that such drugs, medicines and poisons are by custom and usage classified as so-called "patent or proprietary medicines." The real criterion ought to be the medicinal character of the article sold and the purpose for which it is sold, but not the form in which or the name under which it is marketed, nor whether or not it is official in the United States Pharmacopœia or National Formulary. If any item is sold for medicinal use, as distinguished from technical or industrial use, public welfare demands that its retail sale should be confined to drug stores only, where a registered pharmacist qualified by education, scientific training, experience and state licensure is required by law to be in charge in the interest of public health and safety. The New York Court of Appeals in State Board of Pharmacy *vs.* Matthews, 197 N. Y. 353, had this to say on the subject: "As has already been suggested, there are strong reasons relative to the public welfare which make it proper that regulations concerning the sale of drugs and medicines should not be confined to poisons, but may be extended so as to embrace what are known as harmless, household remedies, that is, which may be harmless if properly prepared. The police power logically extends to such medicines, etc." In the case of State *vs.* Zotalis, cited above, the Supreme Court of Minnesota expressed its view as follows: "The legislature thought that the dangers incident to its sale justified regulation and that a restriction of sales to pharmacists or to those under their supervision was effective. It is true that no technical skill is required in making a sale. This does not prove the statute invalid. As remarked by the trial court, the pharmacist knows where to procure a pure and genuine article and his prescribing physicians will require him to furnish a pure drug. It is not questioned that the sale of drugs, medicines and poisons may be regulated in the exercise of the police power." And we might add that the pharmacist, and not the grocer nor the dry goods merchant, knows about the origin, composition, keeping qualities, preservation, solubility, dosage, therapeutic use, etc., of medicines, and can thus intelligently discuss, advise and safeguard the health of the public, while the others cannot.

CONCLUSION.

In conclusion it may be said that if the present status is permitted to continue the entire benefit of our pharmacy laws as public health measures will be lost both to the allied medical professions and to the public. Since the subject matter is of country-wide concern, rather than local, it is the duty, we believe, of the AMERICAN PHARMACEUTICAL ASSOCIATION to initiate and sponsor a nation-wide move of pharmacy law revision along the lines discussed and to actively solicit the support and coöperation of all state and local pharmaceutical associations as well as the American Medical Association, the American Dental Association, and all state and local medical and dental organizations. The allied professions and the public need it and are entitled to it. The well-informed Dr. R. P. Fischelis, in a recent article on the subject appearing in *The Scientific Monthly*, ably summed up the situation in these words: "If there is to be any control over the sale of drugs and medicines, a way must be found to extend that control over all medicines regardless of the fact that

they are classified as 'patent or proprietary preparations' through the arbitrary use of these terms in our pharmacy laws or through a conversion of the meaning of these terms to suit the purposes of manufacturers."

THE IDEA AND THE TASKS OF THE HISTORY OF PHARMACY.*

BY DR. GEORGE URDANG.[1]

While attending last year's convention of the AMERICAN PHARMACEUTICAL ASSOCIATION in New York, I answered Dr. Ireland's wish by speaking extemporaneously about the tasks of the History of Pharmacy. I could only touch the subject lightly. The interest I found encouraged me to go into the matter more fully and to point out its principal characteristics.

It is an old-established principle of all scientific research work to take nothing for granted, but to examine the contents and the interpretations of all traditions as to their definition. We are justified to use a definition only if we have satisfied ourselves that it is scientifically irreproachable.

In our case, we have to ask first, what is "Pharmacy," considered comprehensively, and how can we apply this designation. There are two different interpretations which have been asserted through the ages and have been sometimes the subject of long discussions. The one intended to give "Pharmacy" the rank and the dignity of an autonomous science and in this way a place among the other autonomous sciences, *i. e.*, Chemistry, Botany, Zoölogy, etc. The other saw in "Pharmacy" an art based on a series of autonomous sciences without being such a science itself.

The significant trait of an autonomous science is that it is a branch of the tree of knowledge and is working out and following its own system of research work without any regard to the possibilities of practical use. This theory has proved to be correct for philosophy, mathematics, physics, chemistry, botany, zoölogy, and to a certain extent, medicine but does not include Pharmacy.

On the other hand, Pharmacy cannot be included among the arts since it is as Frederking said in 1874, "a part of the practical application of natural science as a whole."

The definition of a profession best suits Pharmacy since it is a combination of sciences and arts and is based upon a practical application of both to "a highly specialized calling," to use the words of LaWall. Pharmacy is given a broad definition in Leaflet 14—Pharmacy—as issued by the Office of Education of the U. S. Department of the Interior, in the following wording:

"Pharmacy, as generally practiced, may be defined as the science and art of preparing from crude vegetable, animal and mineral substances and chemicals, materials in suitable and convenient form for use as drugs; the compounding of drugs; the dispensing of drugs and medicines according to prescription; and their distribution in other ways. . . . . As practiced in all of its branches, Pharmacy also

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