EDITORIAL

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LOOKING BACKWARD.

"Credit to Whom Credit is Due."

NCE, only, in a lifetime, comes the opportunity of standing on the three-score-and-ten-year line. Comes then, naturally, a looking backward and a thinking forward. And amid these reflections come questionings as to the usefulness of the life that is past, as well as concerning one's relationship to the field occupied.

For more than half a century, the thought and action of the writer have been devoted to, and dominated by, what is known as the art of pharmacy. On this, his seventieth anniversary, he comprehends, more fully than ever before, that the opportunity of every moment has been dependent upon the works of others, some of whom have been to him companions in the passing along, while the majority have been afar, both in location and in time. But yet they are no less companions. They stand a legion, stretching back, back, to the mists of traditional times, their very shadows lost in the bloom of antiquity.

The manipulation of drugs and the uses of remedies have ever been man's great concern, but in the passing along, their study has ever been inextricably complicated with charm, astrology, folk-lore, astronomical formulas and alchemistic empiricism. Who, with the record of the past before him, would attempt to separate pharmacy from medicine, past or present, or medicine from surgery? Who would even attempt to subdivide the medicine of former times into such distinct sections as surgery, chemistry and pharmacy? Who would venture to draw a clear-cut line between their shadings, or between these and connected professions? And as regards the contributions of any one man, who can say, "This came from himself alone?"

"Credit to whom credit is due." Whatever may be one's part or his sphere of activity, surely his personal opportunity depends largely upon the service rendered by others, seen or unseen. In the labyrinth constituting the whole, the trifle each has to offer disappears, so far as his personality is concerned, as sinks a grain of sand in the ocean. His contribution of a life work is but a mite—the flashing of a shaving in the night.

Looking backward, with this thought in mind, let us venture to consider the wondrous Code of Hammurabi, who in ancient Babylonia, a thousand years before Moses was born, formulated the laws embracing medicine and surgery. Did not he, too, look backward? Thinks anyone that he *created* the necessity for those ideals? Did he not, by offering these rules of conduct, give evidence that, as a leader, he was thinking not alone of the past and present, but hopefully and help-

Marvelous is that precious first book on Egyptian medicine, fully of the future? so admirably described in the lectures of Dr. Zwick—the Papyrus Ebers, handed down to us from a civilization that had its day indefinite thousands of years before the hoary pyramids were built. Does not every feature show that pharmacy was even then important as a foundation for the healing of humanity's ailments? In the entrancing Oriental Arabian Nights, is not pharmacy exemplified by numberless references to drugs and processes, some of them speculatively seer-like, others purely pharmaceutical? Does not "Charaka-Samhita," the most ancient of all works on medicine in age-worn India, indicate, by reference to an older work, a part of the "Atharvan" (no trace of which can now be found in print), the existence of a pharmacy of even a long anterior date? Do not the Vedas, that strange poetic work on the Science of Life, touch pharmacy in ceremonial processes? Who knows the part pharmaceutical manipulations of that day took, outside the concocting of the intoxicating drink, soma, used in the sacred sacrifices? Turning now to our own sacred writings. Consider the tributes paid in the Old Testament to the uses of the herbs of the field, which could only by manipulative processes have been prepared. Turn then to the more modern New Testament, in which one might even argue that the great ethical Leader entered the field of pharmacy when, to compound an eye remedy, He made a mortar of the palm of His hand, and a pestle of a finger. Indeed we find that, in early church annals, Christ was portrayed as an apothecary.*

Follow briefly this line of thought, in its numberless radiations, not neglecting the mortar and pestle relics scattered over the lands of the dead to history, cliff-dwellers of western America. Consider the story as a whole. Let us ask: Do not the symbols of pharmacy to-day stand as a relic of service in every land and in every nation? The hand that held the pestle surely may claim to have a part in the old, old, and yet older civilizations that, born in times unknown, bred in misty eras near the prehistoric, to die before the *word* pharmacist existed, yet testify in their records that the *art* of pharmacy was of it all a factor.

With these reflections, let us pass from this entrancing field and center our thought on a few incidents of the nearer past. Think now of the men who delved and found, as well as those who delved and failed to find, in the nearby Middle Ages. Neglecting details of the times of alchemistic hallucinations, of those strange fanatics who floundered in a realm of mystery, let us pass to the nearby present. Uprise the names of hundreds who, both before and after the separation (very recent as time counts) of the practice of medicine and surgery from the art of pharmacy, have as pharmacists contributed to nearly every phase of modern human activity. Consider only a few of these apothecaries, comparatively re-

^{* &}quot;Christ as Apothecary." Prof. Edw. Kremers, in *Pharmaceutical Review*, 1899, pp. 338-341.

cent.¹ Think what the world would be to-day, but for their patient efforts, the results of which are voiced in their contributions.²

Consider the Swedish apothecary, Scheele, who discovered oxygen, contemporaneously with, but independently of Priestley, and thus laid the foundation for the new chemistry of Lavoisier. Did not Scheele, while making lead plaster in his little apothecary shop, also discover glycerin, and thus open to view the chemistry of fats and fatty oils, afterward worked out so admirably by Chevreul? Did he not, by isolating various acids from plants, lay the foundation for the study of organic acids? And yet,

"Scheele always remained the humble apothecary, dying from overwork, in the best of his years, in the little community of Koeping, in Sweden."

Consider the wonderful outcome of the work of the compounder of medicines, Trommsdorff, an apprentice to his father, whose father before him had been a pharmacist. From this pharmacy home, Trommsdorff became Professor of Chemistry in the University of Erfurt, and a companion of the celebrated Liebig, with whom he became closely associated editorially. Trommsdorff's Annalen was the fore-runner of the Annalen der Chemie, which to-day bears Liebig's name.

Think of Derosne, the Parisian apothecary, and Sertürner, the German apothecary, who simultaneously, but independently, isolated morphine, announced by Sertürner in his article on Morphine. To this discovery, linked with those by Scheele and other investigators, we owe the very beginning of the science of Pharmacology, now so important, in which isolated and definite chemical compounds from plants became subject to quantitative therapeutic treatment.

Turn next to Nicholas Lémery, the French "Court Apothecary" of the 17th century. Did not his great work on chemistry (possibly the first that was practically free from alchemistic complications) become a veritable text-book on the subject, thus opening the door to a new chemical literature? It has been recorded that,

"Every man of that date interested in any phase of chemical thought considered it necessary to possess one of the seventeen editions of the *Cours de Chimie* issued by Lémery during his lifetime, and repeatedly revised thereafter, being translated into the language of every European country."

Leans not co-laboring science, as a whole, on this pillar erected by a pharmacist?

Stands in Paris, to-day, a monument in honor of two Parisian apothecaries, Pelletier and Caventou, the discoverers of strychnine, who, following the dis-

¹ Before me lies a compiled list of nearly one hundred, whose avocational efforts touch practically every phase of life, from poetry and literature to materialism, personified. Very difficult is it, from this wealth of opportunity, to select a few names as a text.

² Admit that when time is ripe, the man appears. And yet, since the apothecary dominated the field, had not these men opened the door, the next nearest would naturally have been other apothecaries.

covery of morphine by preceding apothecaries, made to humanity the mighty gift that ushered in the systematic study of alkaloidal chemistry.

Prodigious was the work of the English authority, Pereira, whose Materia Medica and Pharmacology was the most complete publication on that subject in the English language, to that date. Very close came Hanbury, the talented searcher of the world for materia medica specimens and supplies, who exercised a marked influence upon the world's commerce. Flückiger, the celebrated Swiss pharmacist and chemist, made of him a companion. Together they produced the *Pharmacographia*, that marvelous hand-book, combining history, botany and descriptions of drugs, the greatest and best ever devoted, in the English language, to the science of that subject. Then, we should not omit G. C. Wittstein, the father of manipulative pharmacy, whose processes are standards to-day in the practice of pharmacy.

From the time of Galen, backward to the mists of antiquity, we find the pharmacist and the physician hand in hand, indeed they were *one*, so far as can be determined. Even to near our day we find the compounding of medicines inseparable from therapy in its various forms and transformations; the dealer in drugs and medicines a prescriber, the physician a compounder, and the barber a surgeon.

May not this writer, who is presumably nearing the close of his activity in pharmaceutical lines, offer this tribute to his co-laboring companions, afar off in home settings, as well as in time? And, may not this record of the past give him the privilege of turning toward the future, and thinking forward?

J. U. L.

THE FORMER PRESIDENTS AS AN ADVISORY COUNCIL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

THE proposition to form an Advisory Council of the former Presidents of the American Pharmaceutical Association is not new. In fact at the Detroit meeting in 1914 this was presented in the presidential address, in the following manner: "No man has yet been honored with the high office of President of this Association who has not concentrated his thought toward the betterment of the Association. The duties of the office have given him opportunities for observation and the obtaining of knowledge of men and affairs relating to pharmacy. The question has arisen, 'What are we doing to profit the Association by their special knowledge and ability? What shall we do with our ex-Presidents?' I would advise that they be constituted an Advisory Council to which certain questions calling for wise consideration and mature judgment may be referred by the Association or the Council."

It is a matter of record that the Committee on President's Address "regarded favorably" this proposition and that the Association "adopted" the recommendation. Although nearly five years have elapsed since this action was taken, noth-

ing whatever appears to have been done toward making the *adoption* effective or of the least value to the Association.

It is not an unusual procedure for organizations such as the American Pharmaceutical Association to have an advisory body similar to that proposed as the Advisory Council of the A. Ph. A., and such a plan has been found to be of great value to industrial managements. What business organization would think of adopting a plan by which it would annually appoint a specialist to give careful study to the particular problems of its industry, at the end of that short period listen attentively to his report and suggestions for betterment and progress, and then after approving the recommendations cast them into the discard?

It is the principle of ACTION that assures the success of any enterprise, whether applied to the activities of an industry or of an association. What the Association has lost in the way of progress by thus neglecting to utilize the valuable assets available, namely, the special knowledge of the needs of the Association, the realization of the possibilities of its service, the clearer insight into its affairs and the love of the Association and desire to advance its standing, can not now be measured. It certainly has not been to the best interests of pharmacy that our retiring Presidents have been shelved with such scant consideration of their labors and their concern for the welfare and progress of the Association.

It is believed that the present is an opportune time to revive this project, and that no further time should be lost in crystallizing into action the expressed will of the Association, which has a firmer foundation in its practicability and usefulness than merely in the sentiment associated therewith.

G. M. B.

THE PROPOSED RESEARCH INSTITUTE.*

BY H. V. ARNY.

That the proposition of Dr. C. H. Herty regarding the establishment of an institute for research in the chemistry and pharmacology of medicinal substances is attractive goes without saying; that the creation of such an institute is desirable is equally true. These basic principles being accepted, the remaining questions are largely matters of detail, such as scope, ideals and management. Up to now the proposition has been so vaguely outlined that much discussion and considerable difference of opinion have obtained and until some definite plans are evolved this confusion will continue.

SCOPE.

The original proposition seemed limited to the synthesis and manufacture of organic chemicals and pharmacological investigations as to their possible medicinal effect. From this simple start, the discussion has extended to the widest ranges of drug study. Certain representatives of drug manufacturers have seemed to assume that the main function of the institute would be to pass on pharmaceu-

^{*} Presented before Philadelphia Section, American Chemical Society, May meeting, 1919.