

THE PLACE OF PHARMACY IN THE WORLD.

BY H. V. ARNY.

ADDRESS OF ACCEPTANCE OF THE THIRD REMINGTON HONOR MEDAL, MAY 15, 1922.

To reverently paraphrase a great saying: Before Science was Pharmacy is. I love to dream over the historic wealth of pharmacy; to think of our pharmaceutical progenitors amid the mists of the past. First there were priests of the Egyptian temples who prepared the medicaments; the writers of Eber's Papyrus. Then there were those in the Bible whom I wish to continue to consider as apothecaries even though the Revised Version calls them "perfumers." The one Solomon had in mind when he wrote of the fly in the ointment; the one who had the great, though unconscious, glory of preparing the precious ointment that the Magdalen poured upon the feet of her Lord and Master; the one whose name we know, Hananiah, the apothecary whose son helped Nehemiah to rebuild the walls of Jerusalem. Then I like to think of the pharmaceutical helpers of Dioscorides and Galen; of the seplasiarii of ancient Rome; of the medieval apothecaries of Nuremberg, whom Valerius Cordus had in mind when he prepared his Pharmacoporum Omnium. Then to the colonial apothecaries of our own land; to the druggists of the young Republic of 1822 and thence along through the nineteenth century, to that honored line of pharmacists, Procter, Parrish, Bedford, Rice, Maisch, Oldberg, Diehl down to my



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Remington Honor Medalist, 1922.

an unassuming helper rather than a brilliant master. In ancient Egypt he was the assistant priest, in ancient Greece he was the doctor's pupil; in medieval Europe he was the lay brother; in Tudor England he was, to quote the quaint saying of William Bulleyn, "the physician's cook," and in Colonial America he was the small shopkeeper. But whenever and wherever he lived, he was a Man, a person whose passion was Service, whose motto was "Accuracy," whose virtue was Trustworthiness. Verily these cardinal principles represent a heritage more precious than a mere place in the Almanach de Gotha.

Moreover let us remember that up to the nineteenth century the only exalted personages were the nobles, the clergy and the warriors. In those days, the surgeon was also the barber; the author lived only as he basked in the smiles of his noble patron; the chemist was either a soap boiler or a practitioner of black art, the banker was usually a Hebrew money lender. It is therefore not surprising

beloved teacher, that great man, Joseph Price Remington, whose kindly countenance adorns the medal just bestowed upon me, the face that I imagine greets his pupil with a smile of friendly recognition.

What lessons we can learn from these worthies of the past; these disciples of Service, these humble searchers after the Truth. For let us frankly admit that the pharmacist of the eighteenth century and earlier was

that the pharmacist was little esteemed at court until Parmentier made the influence of pharmacy felt in the palace of the Fifteenth Louis of France. But any calling that has produced a Scheele, a Sertürner, a Pelletier, a Caventou, a Schlotterback, a Trimble, a Power and a Lloyd need not bow its head in the presence of the modern sciences; a calling that has developed the vast concerns headed by a Dieterich, a Wellcome, a Squibb, a Dohme, a Warner and a Seabury need not be considered insignificant when compared to other manufacturing enterprises; a calling that has been inspired by a Procter, a Prescott, a Markoe, a Searby, a Caspari and a Rusby need not be held in ill esteem in educational circles even though we have some pharmaceutical Jeremiahs who seem to think the contrary. When we come to the backbone of pharmacy, the great body of retail druggists such as Metcalf and Sheppard of Boston, Adamson and McIntyre of New York, Marshall and Blair of Philadelphia, Duhamel and Hynson of Baltimore, Ebert of Chicago, Alexander of St. Louis, Finlay of New Orleans, Jones of Louisville, Painter of San Francisco and New York and Holzhauser of Newark to say nothing of those who are still with us we will all agree that there is no class of retail merchants, who are of such vital importance to the community. To quote inexactly from Professor Beal, the retail druggist is more than a merchant, he is a professional man in the fact that he is



Remington Honor Medal Presented to H. V. Army, New York, May 15, 1922.

the only retail business man who receives family confidences that must remain as inviolate as information imparted to the physician. And then there is no retail business in which such strong emphasis must be laid upon service as in Pharmacy. I might point out that the main difference between the management of a chain of corporation stores and the business of an individual pharmacist is that the former is financed with the primary object of making money for the corporation with service as a mere selling point; while with the right sort of an individual pharmacist service to his patrons comes first with the financial rewards as the necessary complement to his primal consideration. This last statement is not as fantastic as it sounds. Of course, all of us work in order to make a living; to acquire a competence. But the gulf that divides the worthy from the unworthy is this very question of service. Is one's aim to freely give of one's time with reward sure to follow; or is it to take all one can get and give as little as possible in return? Time will not permit me to cite examples of unusual service rendered by retail pharmacists but this has been the theme of a paper I published some years since (*Drug. Circ.*, 1914, 651).

I hope I have made a case for Pharmacy as an historic calling whose record of 4000 years of service is available to all of those who will only read it. But

how do we pharmacists of 1922 pass along the truth as concerns pharmacy? How well are we holding aloft the torch of pharmaceutical progress, with its flame brightly burning; ready to pass along to the generations that follow us? Sometimes I fear that in accordance with efficiency and progressiveness characteristic of pharmacy we have exchanged the torch of the poet for the Bunsen burner; an instrument of greater calories but of less luminosity. It seems to me that instead of letting our "light so shine," we are too unobtrusive in furnishing our calories to those whom we are benefiting; in short, that we are too modest in letting our achievements be known.

In this virile twentieth century the keynote is publicity. Unobtrusiveness is but a foolish way of letting another calling get the credit of our achievements. While we sit humbly back and modestly deprecate our achievements, our more energetic mother, Medicine, and our younger sister, Chemistry, have caught the spirit of the age and are letting the lay world know what they are doing; are doing work that we pharmacists should be doing; and if the truth be told are appropriating to themselves some of the achievements of us pharmacists.

Is this statement extreme? Let me give some illustrations of what I mean. Scheele, Sertürner, Pelletier, Caventou and other pharmacists of the past whose names are linked with their great discoveries in phytochemistry are usually classed in non-pharmaceutical literature as chemists.

In the same way those great pharmaceutical research workers of to-day, John Uri Lloyd and Frederick B. Power, are proudly claimed by our chemical brethren.

In a cabled news item that appeared in the American newspapers of a year or so ago the eminent Professor Bourquelot, head of the *l'École Supérieure de Pharmacie* of Paris, was cited as biologist.

Our own Dean Rusby is claimed by medicine on one hand, and on the other hand the expedition which he has recently conducted through South America with such brilliant success is considered as a botanical achievement by our friends of that calling. Amusing and yet irritating it is, that the early newspaper accounts of the undertaking dubbed the well-known pharmaceutical manufacturers of Philadelphia who financed the undertaking "a chemical firm."

In the list of research grants, research fellows and research medals published by the National Research Council, those relating to pharmacy are classified among the medical subjects, and the same thing is true as to the catalogues of certain publishers where books of pharmacy are listed in the sub-head "pharmacology."

During the war by special invitation a certain college of pharmacy sent one of its faculty down to Washington as a civilian expert on the subject of protective ointments against mustard gas. The gentleman worked on the problem during the four or five months and perfected the ointment that was adopted by our army. In the newspapers of a later date, the research was described as an achievement of the Chemical Warfare Service.

Lastly, while our newspapers employ as juicy morsels the occasional misdoings of the retail druggist, they are usually silent as to their virtues. Others get the credit for the narcotic legislation that druggists have placed upon the statute books to their own inconvenience but for the welfare of the public. Few realize the honest straightforward way that a vast majority of pharmacists have assumed the grave responsibilities that have come to them under the Eighteenth Amendment.

Those who have patiently listened to me thus far may be asking themselves "What has all this to do with the Remington Honor Medal?" It has this much to do with the subject, if I may be allowed to abruptly turn to personalities.

To me has been awarded the Third Remington Honor Medal—a badge of distinguished pharmaceutical service. Far be it from my thoughts to question the wisdom of eminent jury of award, the past-presidents of the American Pharmaceutical Association, but in taking inventory of my own modest achievements it is not as easy to see why the great honor fell upon me in 1922, as it was to understand why the first medal was awarded in 1919 to James Hartley Beal and why the second medal was awarded in 1920 to John Uri Lloyd. The medal of 1919 went to Dr. Beal as the pharmacist in legislation; for no man during the last thirty years has done more to formulate the legislative status of American pharmacy than has our friend from Scio, Ohio, and Urbana, Illinois. The second medal went to Professor Lloyd as we still love to call him as the pharmacist in research; for it is no disparagement to other distinguished pharmaceutical research workers to say that Lloyd, pharmaceutical manufacturer, author and scientist, is the brightest jewel in the research crown of American pharmacy. But the third medal and its recipient? This is another matter. Some of my friends have referred to my versatility, but versatility is not enough to bring this supreme honor. Some have been good enough to refer to my capacity for performing work, but service, not mere work, is the standard set for the award of the Remington Honor Medal. May I therefore be pardoned for taking this unique opportunity in my life to dare to venture the hope that the Remington Honor Medal Committee chose me in this Year of Grace 1922, because of my humble efforts toward solving the problem that I have chosen as the topic of my address, The Proper Place of Pharmacy in the World?

I hope I have proven my contention that pharmacy is more than an ancient calling; that it is more than a humble service. I hope I have shown sufficiently clearly that as a science, as a field of service, as a profession the followers of pharmacy have proven their worth.

But that is only half of the battle. We know these facts to be true, but have we impressed them sufficiently upon the world around us; have we, in truth, absorbed these facts ourselves? I find too often that our pharmaceutical manufacturers turn to chemists untrained in pharmacy for a solution of their problems. I find at times our pharmaceutical educators sneering at their own colleagues in pharmacy and lauding the achievements of those working in other fields of scientific and educational endeavor; I find some of our younger pharmacists so ignorant of the possibilities of pharmacy that they are frankly desirous of embarking in other lines of scientific or professional endeavor.

All of these conditions so detrimental to pharmaceutical progress are due to a lack of proper illumination. I have asserted that in our modesty, we pharmacists have not properly set forth our right to recognition as a science, as an art and as a profession.

I have endeavored during my twenty-five years of teaching to impress upon my students the fact that pharmacy is something more than the mere making of a living. I have tried during the last ten or fifteen years in my various A. Ph. A. activities to emphasize that pharmacy has a distinct place in the world of science as

well as in the world of service and that it was the duty of every true pharmacist to maintain pharmacy's proper place in the world. I have on sundry occasions pointed out how these things can be done and at this time I will summarize what I regard as the proper means; many of them, by the way, being the methods used satisfactorily by the followers of our mother, Medicine, and our sister, Chemistry.

1. *We Pharmacists Must Stick Together.*—There are too many of us flirting with medicine and with chemistry rather than devoting our best efforts to our own calling.

2. *We Should Give Our Financial Aid to Projects for the Betterment of Pharmacy.*—Those of us who have means should bestow it upon our pharmacy colleges and upon our pharmaceutical research undertakings.

3. *We Should Develop Better Facilities for Acquainting the Public with the Achievements of Pharmacy.*—It was my good fortune to organize a national committee on pharmaceutical publicity and during the past year it has been doing excellent work under the leadership of its accomplished chairman, Dean Robert P. Fischelis of Newark. I might, however, point out that Dr. Fischelis has had at his disposal less than \$1200 per annum whereas the annual publicity appropriation of another American scientific society averages about \$12,000. Such meritorious work as our publicity efforts should receive better support.

4. *We Should Do More Research Work Ourselves or Should Give More Encouragement to the Research Work of Others.*—In other addresses (JOUR. A. PH. A., 9, 684; *Pharm. Era*, 54, 236) I have discussed the subject of pharmaceutical research at length and I hope to have satisfactorily demonstrated the fact that even as a selfish proposition, pharmaceutical research should be encouraged by all who make their living out of pharmacy. It is now my task to organize a national committee on pharmaceutical research and while the organization will not be effected until the time of the Cleveland meeting of the A. Ph. A. I can now say that it is my earnest hope that at that time the several agencies interested in pharmaceutical research may come to a common agreement that will be of marked benefit to the whole of pharmacy. In the meanwhile there is much left for individual pharmacists to do in this direction. The only American endowment for pharmaceutical research now extant is the \$16,500 of the A. Ph. A. Research Fund, the net profits from sale of the National Formulary. This fund, which should be augmented by outside contributions, provides at present \$360 per annum for research grants and has been and still is of distinct service to those performing research. But we should go further. Every teacher in a college of pharmacy should be expected to perform some research work. In every college of pharmacy, provision should be made for the maintenance of at least one research fellow.

5. *We Should Give Better Support to the Scientific and Professional Work of the American Pharmaceutical Association.*—Practically all of us here present are members of that great organization—the American Pharmaceutical Association. Few of us appreciate the fact that it is among the oldest of America's national professional organizations. Thus, while the venerable Franklin Institute dates from 1824, the American Medical Association and also the American Association for the Advancement of Science from 1848, our own organization will celebrate its seventieth anniversary at its Cleveland meeting next August, while the American Chemical Society will have its semi-centennial in 1924.

We should do more than be merely members of the A. Ph. A. We should give to it, our time, or means; yea even our prayers. How many here present know practically the last words of that great pharmacist, Albert E. Ebert, were words of affection for the AMERICAN PHARMACEUTICAL ASSOCIATION? Each of us should consider himself (or herself, since women have ever been as welcome in the A. Ph. A. as men) a committee of one to bring new members into the A. Ph. A. Each of us should aid our great JOURNAL in securing more advertising patronage. Each of us should feel a personal responsibility in aiding the project of our A. Ph. A. Headquarters, of erecting a building that will tell the world of the dynamic power of Pharmacy.

And then there is the A. PH. A. YEAR BOOK. Of course I cannot close this address without a reference to my early pharmaceutical love "the Handy Black Volume." Since I was a young man in a southern drug store, I have drawn much of my inspiration from the old A. Ph. A. Proceedings and their successors, the Year Books. When the call came to me to carry on the great task of editing this magnificent work, a task to which my venerated friend, C. Lewis Diehl, gave a greater part of his life, I assumed the position as a duty to pharmacy. I have been glad to perform this duty during the past six years and as I have worked upon the successive annual numbers I have realized as I have never realized before the great work that the A. Ph. A. has been performing all of these years in furnishing to pharmacy, not only of America but of the world, this pharmaceutical library in one volume per annum. Few but those in charge of the affairs of the A. Ph. A. realize in what high esteem the YEAR BOOK is held by pharmaceutical savants the world over. Few appreciate the sacrifices made by the A. Ph. A. in keeping aflame this torch of American pharmaceutical progress. In this endeavor, the A. Ph. A. should receive the support of all other pharmaceutical agencies of our country.

Enough, perhaps more than enough, has been said by the recipient of the Third Remington Honor Medal. In closing, he wishes to give his hearty thanks to those who by their ballots selected him for this supreme honor, to those, his friends of the New York Branch who planned this delightful evening and to those from neighboring cities who have come to spend with him the greatest evening of his life. May he leave with all present the thought with which he began this address; that since the dim ages of the past, pharmacy has been a calling of unselfish service and that to-day and into the dim reaches of the future it will continue a means of service, a useful art and a valuable division of science, if we pharmacists will only rise to the possibilities of our calling.

SOME FUNCTIONS OF BOTANY IN THE PHARMACEUTICAL CURRICULUM.*

BY E. E. STANFORD.

Botany, as a science, had its origin with the beginnings of medicine and pharmacy. Botany, in its observational and experimental phases, dates even further into antiquity. All man's woe and weariness, says tradition, are the fruit of unfortunate

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