ORIGIN OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION.

BY FRANCIS E. STEWART.

The American Medical Association held its annual meeting in Richmond, Va., the first week in May 1881. During several months previous to this annual gathering much discussion had been going on relative to the relations existing between pharmacy and medicine, largely caused by the advent and rapid growth of the manufacturing houses invading the fields of the pharmaceutical and medical professions. For centuries pharmacists had prescribed over the counter and physicians had dispensed their own medicines before the segregation and specialization commenced which gradually separated the practitioners of pharmacy and pharmaco-therapy into two vocations. From the beginning of this specialization more or less antagonism existed between the two classes of practitioners. This was partly due to the fact that the boundary lines between them necessarily overlapped and were indistinct, and partly due to the third factor entering in, namely, the public at large and its demands for medicines for self-medication and domestic use. But now another factor had entered and complicated the problem still further, namely, the pharmacal and pharmaco-chemical manufacturing houses. They were practicing both pharmacy and pharmaco-therapy at wholesale and without license to practice either.

As I had taken prominent part in this discussion as a graduate in pharmacy and medicine, and advocated coöperation and coördination between the two vocations in promoting progress in the science of the materia medica and useful arts of pharmacy and pharmaco-therapy, I was invited by the chairman of the section on Practical Medicine and Materia Medica, of the American Medical Association, Dr. T. A. Ashby, of Baltimore, to read a paper before the section on "The Materia Medica of the Future." I had no paper ready and was obliged to write one for the occasion or refuse an excellent opportunity for presenting a resolution on the subject of materia medica monopoly as protected by patents and trade-marks, to which I had given considerable thought.

That article in the Code of Ethics of the American Medical Association dealing with the duties of its members for the support of professional character pronounced it "derogatory to professional character for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself or others. For, if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and if mystery alone give it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them." And, again, under "Duties of the profession to the public," it was stated: "It is the duty of physicians, who are frequent witnesses of the enormities committed by quackery, and the injury to health and even destruction of life caused by the use of quack medicines, to enlighten the public on these subjects, to expose the injuries sustained by the unwary from the devices and pretensions of artful empirics and imposters. Physicians ought to use all the influence which they may possess,

as Professors in Colleges of Pharmacy, and by exercising their option in regard to the shops to which their prescriptions shall be sent, to discourage druggists and apothecaries from vending quack or secret medicines, or being in any way engaged in their manufacture and sale."

It was very evident to me that obedience to the spirit and letter of the code of ethics in regard to nostrums would be protective alike to legitimate practice of pharmacy and pharmaco-therapy, if generally lived up to by the medical profession; also if made aggressive as suggested would have much influence in repelling the invasion of the vocations of pharmacy and pharmaco-therapy by the nostrum manufacturers and their so-called "new remedy business," which was, essentially, the nostrum business under another name.

However, I recognized the fact that many of the official medicinal plants had their origin in the practice of Indian medicine men, quacks and old women, and cinchona bark was once a secret nostrum until divested of its nostrum characteristics. And I also recognized that the manufacturing houses had come to stay, and that, properly guided into scientific channels might become the salvation of professional pharmacy.

In my opinion, the key to the situation was the "new remedy business," especially as represented by preparations of new medicinal plants. Progress in the science of the materia medica and in the mutually dependent arts of pharmacy and pharmaco-therapy would certainly be promoted by the introduction of new medicinal plants to science and *brands* of preparations of the same to commerce; also, the proper interpretation and application of patents and trade-marks to the new remedy business might greatly aid in such promotion.

With these thoughts in mind I formulated a plan for its realization and was ready to present it to the Smithsonian Institution—an institution established at Washington by Smithson for the free diffusion of knowledge and a department of the central Government. I intended later to present it to the American Medical Association and AMERICAN PHARMACEUTICAL ASSOCIATION for discussion and further elaboration.

It was also very evident that the plan I was about to propose to the Smithsonian Institution—a plan intended to secure coöperation between the educational and industrial institutions related to the materia medica and materia medica supply business—could not be worked under a system of monopoly, secrecy and misleading advertising characterizing the commercial drug business. Therefore, as the opportunity presented to me by the chairman of the section on materia medica was a good one for offering a resolution on the subject of materia medica monopoly, I accepted the offer, wrote a paper on "The Materia Medica of the Future" and read it before the American Medical Association. After I read the paper, Prof. E. S. Dunster, of the University of Michigan, offered for me the following resolution:

> *Resolved*, That the spirit of the Code of Ethics forbids a physician to prescribe a remedy controlled by a patent, copyright or trade-mark. This, however, shall except (permit) a patent upon a process of manufacture or machinery; provided such patent be not used to prevent legitimate competition; also the use of a trade-mark to distinguish a brand of manufacture, provided the article so marked be accompanied by the working

formula, duly sworn to; and also by a technical scientific name under which anyone can compete in the manufacture of the same.

This resolution was referred to the Judicial Council to be acted upon at the next annual meeting at which time it was rejected on the ground that "said code contains all that is necessary for the proper guidance of the medical profession." A very significant fact in this connection may account for the decision of the Council. A plan was then under consideration for journalizing the proceedings of the Association and publishing the same in a journal to be established and known as the "Journal of the American Medical Association." The members of the Association behind this enterprise were counting upon the advertising patronage of the manufacturers for financial support. The passage of my resolution might have resulted in the loss of that support.

Soon after the adjournment of the American Medical Association, and on my way home to New York, I proposed the following plan to the Smithsonian Institution, not only hoping that the plan would be adopted by that institution, but also become a type for the manufacturing houses to follow as far as practical and appropriate for their "scientific departments" (which I hoped they would establish):

PLAN FOR THE INVESTIGATION OF THE MATERIA MEDICA OF THE WORLD UNDER GOVERNMENTAL AUSPICES.

1. Investigation of the Materia Medica of the world under governmental auspices, aided by the medical departments of the United States Army, Navy and Marine Hospital Service.

2. A chronologically arranged materia medica collection at the Smithsonian Institution representing the medicines used from earliest times by the various tribes, peoples and nations.

3. The sending of expeditions to investigate and explore unknown regions of the world, especially the unexplored regions of South America, for the purpose of obtaining new drugs.

4. The establishment of a pharmacological laboratory for the study of these drugs pharmacologically and therapeutically.

5. The publication of "Working Bulletins" (name suggested by Prof. Spencer F. Baird, Hon. Secretary of the Smithsonian Institution) containing all available information concerning such drugs, and the sending of preparations of the same to physicians engaged in private and hospital practice for clinical test and report.

6. Organization of Scientific Departments by the manufacturing houses engaged in the pharmacal and pharmaco-chemical industries for coöperation with the Smithsonian Institution in verifying the findings of the pharmacologic laboratory.

7. Organization of a National Pharmacologic Society, the membership to be composed of experts in all branches of pharmacologic science.

1. *Pharmacology.*—This is the science that treats of drugs and medicines; their nature, preparation, administration and effect; including pharmacognosy, pharmaco-dynamics, therapy-dynamics, pharmaceutical chemistry and pharmacy.

This definition is taken from the Pharmaceutical Syllabus, published and revised by the National Committee representing the AMERICAN PHARMACEUTICAL ASSOCIATION, The American Conference of Pharmaceutical Faculties and the National Association of Boards of Pharmacy. Reference to dictionaries generally shows this definition to be in harmony with all the lexicographers.

Conferences were held with the various departments of the army, navy and marine-hospital service, army medical museum, and national board of health.

Prof. Baird finally said that he considered the plan one of the most important ever brought to the attention of the Government. In papers read before the Alumni Association of the Philadelphia College of Pharmacy, the Philadelphia County Medical Society, the Ninth International Congress and the American Medical Association, in which I presented the plan in whole or in part, it was favorably discussed by leaders of pharmacy and medicine, including Prof. H. C. Wood, Sr., Joseph P. Remington, L. E. Sayre and others of note. It was endorsed by the Surgeon-General of the Army (Barnes), Surgeon-General of the Navy (Wales), and Surgeon-General of the Marine-Hospital Service (Hamilton). Prof. H. G. Byer, of the Smithsonian Institution, wrote me: "I think your conception of establishing a Bureau or Department of Pharmacology under the Government a grand one and no doubt one that ought to be carried out. We have here all sorts of scientific bureaus, and, it seems to me, not one which is calculated to be of such immediate benefit to mankind as a Department of Pharmacology would be to the American people, not to speak of the immense scientific value to medicine and pharmacy."

Space will not permit a detailed history of the results following this work immediately and afterward up to the present time. The American Medical Association memorialized Congress on the subject in 1891, and sent a copy of my paper advocating an investigation of the materia medica of the world to each member of the House and Senate. The memorial stated:

> "*Resolved*, That the Government of the United States be memorialized by the American Medical Association in favor of the plan proposed by Dr. F. E. Stewart, whereby the valuable work of the laboratories of the Army, Navy, Marine Hospital Service, Smithsonian Institution, Customs Service, Agricultural Department and other departments of the public service, in the line of the identification of drugs, may be facilitated and made of more general utility, by the publication of their results, so that the information thus gathered may be disseminated for the general benefit of the professions of medicine and pharmacy."

The AMERICAN PHARMACEUTICAL ASSOCIATION appointed me chairman of the special committee on National Legislation, and afterward chairman of the committee on Patents and Trade-marks—a position I have held almost continually ever since. Also the AMERICAN PHARMACEUTICAL ASSOCIATION passed resolutions endorsing the principles relating to professional pharmacy we advocated, and these resolutions were adopted by the American Medical Association, The National Retail Druggists' Association endorsed the same principles by resolutions for that purpose. The American Medical Association *published and editorially endorsed my paper entitled "Proposed National Bureau of Materia Medica," and this paper afterwards became the basis of its Council on Pharmacy and Chemistry.* (See *Journal of the A. M. A.*, April 27, 1901.)

COMMENTS AND CONCLUSIONS.

The object of my life work has been to place the introduction of new therapeutic agents upon a coöperative, *i. e.*, professional, basis. On such a basis the burden of expense attending the introduction of new products would be shared

between the educational and industrial institutions, and the artificial demand for "new remedies" created by misleading advertising corrected by impartial discussion in professional societies and professional press. Under such a coöperative system *brands* of new products can be advertised in the advertising pages of the medical and pharmaceutical journals without endangering the integrity of the reading pages. For example, under such a system as now exists in relation to condensed milk the medical and pharmaceutical societies and press are in position to discuss condensed milk as a food product without interfering with the advertising of *brands* of condensed milk. Furthermore, *brands* of condensed milk are distinguished from each other by trade-marks and trade names. And the more brands the more advertisers.

The advantages of the coöperative or professional system for the introduction of new therapeutic agents are as follows:

1. It stimulates coöperative pharmacologic and therapeutic research by the medical and pharmaceutical professions and manufacturing houses and the publication of the results by donations to the professional societies and press and thus increases the educational value of each.

2. The increased value of the medical journals as media for conveying knowledge concerning new products increases their circulation, and this, in turn, increases their value to the manufacturers of brands of the same as advertising media. The same applies to the pharmaceutical journals also.

3. It stimulates competition between the manufacturers of brands to excel in quality of product. The professional system insures common standards and magnifies the importance of pharmacopœias. The reduction of the products on the market to common standards, while it may "rob the manufacturers of the advertising advantage of claiming their commercially controlled products as better therapeutic agents than those of their competitors," yet, as *skill* cannot be standardized, the gain to all concerned is greater to houses possessing skill than the gain to be obtained by pretense in advertising.

4. The temptation to decry the merits of new products because of commercial rivalry is removed and desire to promote the investigation and use of such products is substituted for it because of the realizing sense that the introduction of each new product of therapeutic merit is profitable to all, as all are equally concerned.

5. It lifts the embargo on the medical press imposed by the monopoly system and permits the medical journals to impartially discuss the therapeutic claims for new products in the reading columns without fear of losing advertising patronage. For example, the advertising of brands of diphtheria antitoxin in the advertising columns of the medical journals has not hindered the impartial discussion of the therapeutic value of diphtheria antitoxin in the reading columns.

6. It permits medical scientists to enter the employ of the industrial institutions engaged in the pharmacal and pharmaco-chemical industries to do research work for monetary reward as well as scientific credit, thus encouraging them to choose research work as a vocation. Under the prevailing competitive system research work in commercial laboratories is discouraged.

7. It permits the medical and pharmaceutical schools and colleges to throw open their laboratories to research workers for solving probems of both scientific

and commercial importance for the industrial institutions without danger of charges of collusion with the manufacturers of "proprietary" medicines.

8. It places the faculties of the medical and pharmaceutical schools and colleges in position to teach their students knowledge relating to the more recent additions to the materia medica without the danger of unwittingly teaching errors due to commercial exploitation.

9. It creates a demand for departments in educational institutions for the teaching of pharmacologic science and the arts upon which that science is dependent.

10. It creates a new and most promising field of work for the graduates of such institutions in the employ of industrial institutions carrying on their vocations in coöperation and coördination with the medical and pharmaceutical schools and colleges.

11. It places the pharmacal and pharmaco-chemical industries on a professional basis of such character that capital invested in research work may receive the protection afforded by the correct application of the patent and trade-mark laws without violating the ethical principles upon which the science of medicine and the practice of the medical arts of pharmacy and pharmaco-therapy are founded.

12. Owing to the fact that medical and pharmaceutical discoveries are at once appropriated by commerce for money-making unless protected by secrecy or patent it has been objected that the above plan is not based upon sound business principles. For that reason methods combining patents with licenses have been evolved and are in successful use. These plans for the protection of science and legitimate professional and commercial interests now in vogue are illustrated by the method of introducing insulin to science and brands of the same to commerce employed by the University of Toronto. Various modifications of the license plan are also successfully employed for the same purpose in which inventions and discoveries are patented and their production licensed under rules protective alike to educational and industrial institutions, protective to the medical and pharmaceutical press and its advertising patronage, and protective to the public health and general welfare.

CENTENARY OF THE BIRTH OF JACOB BOLL.

Jacob Boll, friend of Prof. L. Agassiz, distinguished zoölogist, of Harvard, lived in Dallas during the later years of his life and is buried in Greenwood Cemetery of that city. In writing of him, Prof. Samuel Wood Geiser—head of the Department of Biology, Southern Methodist University—states that among those with whom Professor Boll met at social gatherings in the home of Agassiz were not only scientists but other colleagues: Longfellow, Felton, Pierce, Asa Gray, Wyman, Channing, Emerson, Whittier, Ticknor, Motley, James Russell Lowell, Edward D. Cope and others.

Professor Boll was for a number of years custodian of the zoölogical department at Harvard. He died, in 1880, while on an expedition in West Texas, collecting fossils for institutions and museums.

After a gymnasium career in Switzerland and several years at the University of Jena, Jacob Boll returned to his native town of Bremgarten, in the canton Aargau, where he entered the practice of pharmacy and continued in the profession for about seventeen years. He held the esteem of the officials of his prefecture, and for a number of years was governmental examiner of physicians and pharmacists of his district. During these years and thereafter until his demise Professor Boll carried forward his studies in natural history with consuming zeal. He was born in Bremgarten, Switzerland, May 29, 1828.