

assume the aggressive part in life's responsibilities. Men in every position of mental application are exerting their utmost efforts for material and intellectual supremacy, using every known artificial aid to stimulate their fatigued nervous system to greater efforts until, exhausted, they collapse by over-pressure. One other etiologic element contributing to the pathology favoring cerebral hemorrhage, possibly more potent for evil than any other cause we have yet suggested, is the high mental pressure enforced on school children, by requiring the maximum amount of intellectual effort, and the minimum attention paid to their physical growth. This fault, prevailing as it does to an alarming extent in the city schools, is materially lessened in the rural districts, where manual labor and outdoor exercise being compulsory, develop the physical, commensurate with the intellectual growth.

We may not as yet, be fully able to recognize some potent factors causing diseased vessels, but post-mortem facts reveal miliary aneurysms as very frequent in persons from 20 to 30 years old, and they are by no means rare in the earlier years of life. The old but erroneous belief that arterial degeneration belongs to the aged only, doubtless has led some good clinicians into error. Whatever may have been true in generations past, regarding the integrity of the vascular system in early life, we are forced to confront the fact that the high mental pressure of modern commercialism and specialism tends to bring the old age period to the individual, sooner than in former years. The persons who represent the physical and mental activities in life's duties are not among the easy-going careful livers. Nervous tension is begun early—even in the kindergarten—and relentlessly pursued to the counting-room or professional calling, regardless of natural laws governing the physical organism.

Reviewing the history of recorded symptoms in cases of sudden cerebral lesions, we find a multiplicity of clinical manifestations evidenced by a disturbed nervous economy; but the observing clinician has noticed the frequency with which like clinical manifestations in the nervous system point to widely different pathologic conditions. Thus, when we have expected a hemorrhage and found an embolism, or a tumor and found an abscess, our faith in the clinical evidence is weakened, and we are unwilling to pronounce on a cerebral hemorrhage, unless certain well-marked and long-established symptoms point with unvarying certainty to an apoplexy in the brain. In the "minor," "partial" or "delayed" apoplexies impairing motor power in one limb or group of muscles, with the sensory and intellectual powers normal, we defer our diagnosis. If in addition to impaired motor power, there is disturbed sensation or impaired mental powers, we are more certainly perplexed in making a diagnosis.

These form the class of cases that are becoming proportionately more numerous, and in which we are almost certain to find miliary aneurysms that are the logical result of some one or more of the etiologic factors to which I have referred. The immediate cause of the rupture need not be more than a slight emotion, physical exertion or excitement, sufficient for a temporary increase of blood-pressure.

Conscious of this uncertainty of manifestations by the nervous system, for differential diagnosis of a cerebral hemorrhage from other cerebral lesions, I began a series of observations on the pulse and temperature record, and found a slow, undulating or wave-like radial

pulse quite characteristic and constant in cerebral bleeding, while the temperature was either normal or a little sub-normal. These conditions obtain only during the early hours of a hemorrhage, and if the pulse is as indicated, with an existing normal temperature, the bleeding is probably of capillary origin and progressive. My observations are in harmony with the principle laid down by Nothnagel and emphasized by Gowers, that the most important indications of the nature of sudden cerebral lesions are derived, not from the nervous symptoms, but from those of the vascular system.

Our treatment, then, whether medical or surgical, must be in the direction of stopping a leakage in one or more arteries. In this, as in internal bleeding in other parts of the body, absolute rest in the prone position is imperative. The introduction of such drugs as tend to contract the arterioles should be given subcutaneously or by the mouth. Pressure in the bleeding vessels may be lessened by the proper use of such remedies as will cause a determination of blood to the kidneys, or other secretory organs, this being especially true when the case presents a high blood-pressure. Surgery through the calvarium, for the purpose of making local pressure or ligations, has not been resorted to in many cases, but it is certainly a broad and interesting field for investigation, that should receive more attention than has hitherto been exercised.

To arrive at a knowledge of when and where to operate necessitates, not alone the diagnosis of a cerebral hemorrhage, but its topical location, for which both neurologist and surgeon must work together. Inasmuch as the sudden and profuse hemorrhages are usually quickly fatal, the cases most suitable for operative action are the slowly progressive bleedings for which I have, in this paper, attempted to assist my fellow-physicians to an early diagnosis.

## THE SCOPE OF THE UNITED STATES PHARMACOPEIA\*.

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The object of this paper is not to urge any pet suggestions for the improvement of the "U. S. Pharmacopeia," but mainly to offer the results of some work in the direction of collecting opinions, which are believed to well represent the medical profession, bearing on the present status and future usefulness of the book.

It will be admitted that the "U. S. Pharmacopeia" must have been born of a need on the part of the medical profession. Its plan originated in the Medical Society of the County of New York, in the year 1818, having been proposed by Dr. Lyman Spaulding; and its promulgation and its perpetuation for the first thirty years were effected entirely through the efforts of physicians. These facts must stand as proof that the need of such a book was regarded as fundamental; and in the plan of successive revisions we see evidence of a belief that such need must be perpetual.

These points in history will bear emphasis at the present time, when physicians possess so little knowledge of this work. It is safe to say that, the country over, not one physician in one hundred either possesses a copy of, nor has any direct acquaintance with, the "U. S. Pharmacopeia." Either physicians have drifted away

\*Presented to the Section on Materia Medica, Pharmacy and Therapeutics, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.

from the book or else it does not meet their present needs.

It may be presumptuous to remind the members of this Section of the unique character of this work. It is a standard first and last. As such it is the property of the professions of medicine and pharmacy, without any individual proprietorship whatever. These professions, therefore, have the power to make the volume what they will, unhampered by any vested rights, and this is an immense advantage in maintaining both its standard character and the strictly disinterested quality of the information it contains. This advantage must always be zealously guarded.

Before discussing the question of scope you will permit a reference to the increasing excellence of successive past editions. Credit for this is due to both professions, for in the preparation of the more recent issues the work of pharmacists has been prominent and valuable. The great interest taken by pharmacists in the work of revision was particularly shown in the composition of the pharmacopeial convention of 1890, where, of a total of 190 delegates, only 85 represented medical colleges and societies, while 105 represented pharmacal colleges and societies.

We must not undervalue the importance of pharmacal aid; but, recalling the fact that the book was originated by physicians in response to a need on their part, are we not shirking our duty in respect to its perpetuation when we allow pharmacal influence to predominate in the convention which directs its issue?

There is some difference of opinion as to what should be the scope of the book. A most conservative view—one that is based on a full recognition of its position as a standard—would strictly exclude every article that has not stood the test of time and of ethics, or of which positive physical or chemical qualities can not be taken as determining purity or strength. On the other hand, an ultraliberal view would admit many new substances, for the purpose of putting them on trial so as to test their value. Between the two there are all grades of opinion; and, while the former view has prevailed in the past, during the present decade there has been much discussion of the question of introducing new features in the next revision.

While all such discussion has undoubtedly been from proper motive and with a desire to serve the best interests of medical science, we must not forget that one object, that of maintaining a standard, must be paramount to every other. The Pharmacopeia is nothing if not a standard. But with new therapeutic requirements we may of necessity be nearing the view-point which would make its scope as broad as its character as a standard will permit. We may also have to admit other than physical and chemical tests for certain substances. For example, we will doubtless agree that antitoxin should be made to conform to some standard. But how can we fix a standard for it within present pharmacopeial usage? The question is certainly complicated by the fact that our materia medica has been much enlarged in recent years by the introduction of whole new classes of remedies—the synthetics, the serums, the products of gland function, etc. Moreover, the recognized indifference of the medical profession toward the work may be vitally related to the scope of past editions. Does it meet the needs of the physician in his present use of remedies? The question therefore is not a simple one.

It was with this view that a committee of the Medical Society of the State of New York, two years ago, began

efforts in the direction of increasing medical interest in the Pharmacopeia, some of the results of whose work I take pleasure in presenting to you.

To begin with, it seemed essential to ascertain prevalent medical opinions of the "U. S. Pharmacopeia." The men who would be most competent to pass opinion on the book, by reason of acquaintance with it, would naturally be the teachers of materia medica and therapeutics in our colleges. It was believed that this class of teachers would fully represent medical views. Therefore, to them were addressed the following questions: 1. Do you find the "U. S. Pharmacopeia" meeting the demands as a standard for drugs and preparations? 2. Is it abreast of the present advances in medical and pharmacal science? 3. What in your opinion stands in the way of its more general use by practicing physicians? 4. What can you suggest in a general way in the line of improvements in the "U. S. Pharmacopeia" at its next revision?

Sixty responses were received. The deplorable lack of familiarity with the book was shown by the fact that even a few teachers of materia medica confound the Pharmacopeia with the "U. S. Dispensatory."

Exclusive of these, the answers to Question 1 were as follows: Yes, 34; yes, qualified, 7; no, 9.

The answers to Question 2 were: Yes, 29; yes, qualified, 9; no, 11; no, qualified, 4.

The varied character of the responses to Question 3 does not admit of any concise tabulation. We will therefore simply group them so that the more common tendencies of thought indicated by them may appear. Among the reasons given in answer to this question we find: 1, as relating to the character of the book, 9, mention impracticability, 8 incompleteness, 5 speak of lack of business enterprise and 2 of surplus of obsolete drugs; 2, as relating to the attitude of physicians, 11 charge them with ignorance or indifference, 5 mention their use of ready-made compounds and 3 give bad teaching as a reason. In addition, 8 give a reason which is no doubt quite potent, viz., the enterprise of proprietary manufacturers.

The suggestions in response to Question 4 are numerous, varied and interesting. They bring into prominence particularly the questions of: Lessening the present contents of the book; extending its scope by the introduction of doses, and otherwise; more frequent editions or issue of supplements, and furnishing information on new substances.

Following the lead of these most prominent suggestions, a series of more definite propositions was prepared and later submitted to the same class of medical men, and 100 responses were received, answered as follows:

To Proposition 1, that all drugs and preparations not now prescribed to any extent by physicians be dismissed, the answers were: Yes, 55; yes, qualified, 11; no, 2; no, qualified, 5; no comment, 27.

To Proposition 2, that all chemical drugs necessary to other preparations, but which are not directly prescribed, be placed in a list apart from the body of the work, the answers were: Yes, 91; yes, qualified, 2; no, 2; no, qualified, 2; no comment, 2.

To Proposition 3, that doses be included in the next revision, the answers were: Yes, 88; yes, qualified, 3; no, 6; no, qualified, 2; no comment, 1.

To Proposition 4, that doses be placed in the index rather than in the text of the book, for readier reference and to avoid making them official, the answers were: Yes, 63; yes, or in an appendix, 4; yes, qualified, 3; in both text and index, 10; no, 12; no, qualified, 8.

To Proposition 5, that a section be devoted to giving reliable information concerning new remedies, without in any sense making them official, the answers were: Yes, 83; yes, qualified, 8; no, 6; no, qualified, 2; no comment, 1.

To Proposition 6, that an annual supplement of a few pages, for the purpose of continuing similar disinterested information concerning new drugs, be issued, the answers were: Yes, 80; yes, qualified, 5; yes, or biennial, 3; no, 7; no, qualified, 3; no comment, 2.

The comments which accompanied these replies indicate a very decided sentiment in favor of making the next issue of the Pharmacopeia a book of greater practical value to physicians; the large majority of affirmative answers to all of the propositions should at least entitle them to consideration by all who are interested in this subject. It is to be hoped that they among others may be taken up by the journals and be freely discussed before the Pharmacopeial convention meets.

Another suggestion which has gained some currency during the past year is equally entitled to consideration. I refer to the suggestion that incompatibles be named in connection with each official substance as far as is practicable.

There are other items, such as that of extending standardization, which this paper might have been expected to take up, but such fall now within the recognized province of the Pharmacopeia, and are therefore matters of practical detail rather than of scope of the work as a whole.

Finally, it should be urged on every medical society and college entitled to representation in the coming convention, to choose delegates and secure their attendance, so that a large number of practicing physicians and teachers may take part in its deliberations.

For the sake of medical science as a whole and of sound therapeutics in particular we can not afford to neglect this important work.

## SURGICAL TREATMENT OF HIGH MYOPIA.\*

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Myopia of high degree is extremely rare in my personal experience. This is somewhat remarkable as a considerable proportion of my constituents are of German extraction. I have measured the eyes of more than 6000 patients during the last ten years, in my private practice, and I append a table showing refraction of 5000 eyes. These statistics only include those cases in which a complete examination of the eyes under a cyclopegic was made, all doubtful cases having been eliminated.

| Refraction.                              | Number of Cases. | Percentage. | Percentage. |
|--|------------------|-------------|-------------|
| Myopia . . . . .                         | 179              | 3.7         | 17.3        |
| Myopic astigmatism . . . . .             | 295              | 4.6         |             |
| Compound myopic astigmatism . . . . .    | 481              | 9.6         |             |
| Hyperopia . . . . .                      | 1192             | 23.8        | 77.         |
| Hyperopic astigmatism . . . . .          | 562              | 11.2        |             |
| Compound hyperopic astigmatism . . . . . | 2098             | 42.         |             |
| Mixed astigmatism . . . . .              | 283              | 5.7         | 5.7         |
|  | 5000             | 100.        | 100.        |

I was somewhat surprised to find out that out of 5000 eyes there were only 179—3.7 per cent.—of sim-

ple myopia, and that including simple myopia, myopic astigmatism and compound myopic astigmatism, altogether there were only 955 eyes—17.3 per cent.—with myopia. A table is appended of the 29 eyes having high myopia over 10 D., which are only .58 per cent. of the whole number.

|    | Refraction.  | Treatment.                                    | Remarks.  |
|----|--|---|---|
| 1  | -10.0<br>-14.0   | Diopeters.<br>Correction of refractive error. | Extreme choroidal atrophy, mac. degen., post-staphyloma.  |
| 2  | -17.0<br>-13.0   | Correction.<br>Correction.                    | Post-staphyloma, spots in vitreous beginning lentic opacity.  |
| 3  | -16.0<br>-16.0   | Correction.<br>Correction.                    | Staphyloma, central chorio-retinitis, R. E. O. N. A.  |
| 4  | -16.0<br>-16.0   | Correction.<br>Correction.                    | Conical cornea.   |
| 5  | -16.0<br>-16.0   | Correction.<br>Correction.                    | Advised operation, not accepted.  |
| 6  | -12.0<br>-12.0   | Correction.<br>Correction.                    |   |
| 7  | -11.0<br>-11.0   | Correction.<br>Correction.                    | Hydrops. corneal irreg. astig. staphyloma from ophthal. neonat.   |
| 8  | -10.0<br>-10.0   | Correction.<br>Correction.                    |   |
| 9  | -13.0<br>-13.0   | Correction.<br>Correction.                    | Post-staphyloma.  |
| 10 | -13.0 $\odot$ -1.00, 180°<br>-10.0 $\odot$ -1.50, 180° | Correction.<br>Correction.                    | Choroiditis.  |
| 11 | -10.0 $\odot$ -2.00, 180°<br>-10.0 $\odot$ -2.00, 180° | Correction.<br>Correction.                    | O. N. A.<br>V. F. contracted.   |
| 12 | -14.0 $\odot$ -3.00, 10°<br>-20.0 $\odot$ -3.00, 175°  | Correction.<br>Correction.                    | R. E. slight staphyloma. L. E. large, post-staphyloma, extending to macula.   |
| 13 | -17.0 $\odot$ -2.75, 180°<br>-16.0 $\odot$ -1.50, 180° | Operation.<br>Operation.                      | Well developed conus, R. and L.   |
| 14 | -18.0<br>-1.25 $\odot$ .75, 75°                        | Correction, L. E.                             | R. E. amblyopic.  |
| 15 | -20.0 $\odot$ -1.00, 90°<br>-17.                       | Correction.<br>.....                          | This case was attended by diplopia and 25° esophoria, which was corrected by advancement and tenotomies. The lenses are well borne. |

Operation has been suggested in only two instances and accepted in but one (13). Of the others, perhaps No. 12 would have been a subject in which operation could have been conscientiously recommended had we known of, or dared to have done, the procedure. In No. 15 the strong correcting glasses could be satisfactorily used after correction of the diplopia by operation, so removal of the lenses was not considered.

CASE 1.—Miss J. L., aged 20, born in Norway, a resident of Manitowoc, Wis., was referred by Dr. J. F. Pritchard and came to the office July 6, 1897. She had worn several pairs of glasses on account of short-sightedness, but had received no satisfaction on account of the eye strain which occurred when she wore them.

Family history.—Father had good eyes; died of yellow fever in middle life; mother living and in good health; has always had weak eyes but never wore glasses; has had only the one child.

Personal history.—Patient had pneumonia at the age of 2 and again at 11; has never been strong and is now anemic; has always complained of weak eyes; has found it very difficult to study; has been very near-sighted since adolescence; has been employed as a house servant.

Examination showed a high degree of myopia with well-developed conus in both eyes; no opacities of vitreous; ophthalmometric measurement showed corneal astigmatism:

R.—2.75, 90°. L.—2.25, 105°.

The refraction was:

R.—16.00  $\odot$  —3.50. V.—6/36.

L.—14.00  $\odot$  —1.25, 180°. V.—6/36.

For distance this correction was given, and a reduction of 4 D. from spheres for close work. These glasses were better borne than those which she had been wearing, but she was unable with them to follow up her ambition of becoming a dressmaker.

June 15, 1898, operation for removal of the lens was ad-

\*Presented to the Section on Ophthalmology, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.