

cough," as he calls it. His idea is unique and its explanation plausible with regard to the early hacking cough or clearing of the throat on retiring at night. It may be the first sign-board on the road to phthisis and therefore a good warning for the rest of us to review our own experience in recognition of it. To take an N. B. of so early a symptom is to be forewarned of the trouble to come. It beats the bacillus of tubercle as to time, for all that we now know, and fixes it as an after episode of an already established condition.

The treatment indicated is in confirmation of all we have been preaching for these past twenty-five years in favor of exercise and high altitude climate. Especially is it gratifying to me to see such a confirmation of the need and such a proof of the utility of the "In- and Exhaler," advanced by one who had probably never seen this little pocket device (descriptions of which will be sent to any one applying to the Denver Surgical Instrument Co.). I infer this unfamiliarity with the In- and Exhaler because in the claim advanced for "mechanical expansion" of the lung periphery and bronchi, as a possible substitute for living "at an altitude that gives immunity against phthisis." McLean says: "Among the various ingenious methods which have been devised I could find none that were free from objection, as they almost invariably increase the heart's action, which opposes rather than helps the purpose of their use." The ease with which this "mechanical expansion" can be accomplished *at will* by the total of the one to two hours in each day's interrupted use of this In- and Exhaler, is apparent to even a lay observer. It is evident, too, that this is without any undue disturbance of the heart's action whatever, because of the *adjustibility* of the instrument's two valves. Special reference is made to the *exit valve* because it is only during *expiration* (not with *inspiration* as in faulty methods usually employed) that this "mechanical expansion" can be obtained. The most delicate bedridden invalid can lie near a window and breathe in, through a tube attached to this inhaler and extending out doors, the cold lung-expanding air, medicated to suit with mentholated, formalined, eucalyptized, etc., vapor, and according to his or her strength compel its entrance into the finer tubes and vessels of the lungs. The heart meantime is only helped in its action, for the limit of the instrument's use is suggested to be the reddening of the face, *i. e.*, the congestion of the body's periphery by the driving outward of the blood from the impeded and paralyzed pulmonary vessels. Dr. McLean's endorsement of the pneumatic cabinet, and then his criticisms of its impracticability and cost furnish an excellent recommendation for this convenient little pocket device, easily made adjustable to every one's needs.

I may attempt to answer the question propounded, where the author instances Reynard's experiment proving that a rabbit confined for a month in an atmosphere reduced in pressure to the equivalent of that at 6000 feet elevation, developed the same blood changes as in "rabbits transferred from sea level to a climate at 6000 feet elevation," namely, "Would the same changes in the blood have been produced in an animal breathing the same rarefied atmosphere of 6000 feet with the density of atmosphere pressing upon the external surface of the body as exists at the sea level?" That is, was the improvement due to the rarefied air alone which the animal breathed, or was it due to this combination with the diminished air pressure upon the surface, or was it due to the decreased pressure on the external surface alone? I should say that you can not dissociate the dual effect in explaining the total benefit invalids receive in resorting to a high altitude. On the one hand you have the increased pressure (Dr. McLean's "mechanical expansion") due to the positive necessity to breathe a fifth more air to get the same amount of oxygen at a mile above the sea; and on the other hand you have the *suction* of the blood from the thorax and closed areas toward the periphery.

This latter is similarly explained, but the *reverse* of the congestion of the spinal cord and proportionately of all partially closed areas (as in the coverings of the brain) manifest in the caseous disease. This is the effect produced in workmen subjected to toiling in an atmosphere of greatly reduced pressure.

But the internal increased pulmonary air-pressure and the external diminished pressure of a high altitude atmosphere may be variously substituted for and varied in their proportionate effects by mechanical devices and systems of exercise. For instance, in the pneumatic cabinet, a person breathing the outside air, with the air around him reduced, has the proportionate drawing of the blood into his peripheral vessels correspondingly exaggerated according to the diminished pressure reached in the cabinet. On the other hand, exercise can be chosen, as Dr. McLean has so well shown, which will increase the "mechanical expansion" of the peripheral air cells and tubes of the lungs, with no dependence at all upon the suction effect mentioned of a circumambient atmosphere reduced in pressure. The inhaler referred to, if faithfully used, can do this. In fact, I believe the proportionate manifestation of tuberculosis in the lungs, as compared with other organs, would be greatly lessened and a good percentage of consumption be prevented if there existed the determination and will power, especially among the young, to persistently practice mechanical expansion by this, or possibly by some equivalent method. To use the words of Dr. McLean, "the price of health is vigilance and effort. If the phthisical patient would live and be healthy he must work for it, and in the way I have indicated or by some similar method, or he will miserably perish, notwithstanding he may swallow all the drugs in the dispensatory and be injected with all the serums and specifics, so-called, which are now obtainable. The expansion method of treatment is *nature's method* and is helpful in every stage of the disease, except where there is active hemoptysis from organic changes."

Let me urge the thoughtful perusal of Dr. McLean's paper.

CHARLES DENISON, M.D.

Prescribing Ready-made Compounds.

CHICAGO, Feb. 9, 1898.

To the Editor:—In the prevention and successful treatment of disease our science culminates and becomes an art. Therapeutics, the philosophic adaptation of remedial agents to the correction of pathologic conditions, the cure of disease in the human organism and its restoration to that physiologic equipoise we dominate health, is the full consummation of science and art. No one unfamiliar with physiology and pathology, pharmacodynamics and therapeutics can prescribe for any disease in a scientific manner. Therapeutics must be regarded as first among the principles of scientific medicine by learned and cultured members of our profession. The adaptation of means to the accomplishment of wisely purposed ends in the practice of medicine and surgery, implies much as to acquirements and knowledge? Every case is stamped with an individuality by which it is differentiated from all others. We find special perversions of functions and pathologic tendencies having relation to the assemblage of abnormalities presented by the case. The educated physician addresses himself to the task of securing a mastery of every factor and of meeting every indication essential to final victory.

When men of rare endowments and an encyclopedic fund of knowledge recognize the necessity for clear definite information and long investigation before authorizing the use of remedies in many cases, how can we reconcile the conduct of many with the obligations imposed, who simply order some nostrum, ready-made formula or trademark preparation? How can the manufacturing man even though he be a pharmacist, prepare such a combination of drugs as to adapt them to the cure of the hundreds of diseases met with each year? Drugs and

chemicals are modified in their action upon the human organism by age, sex, habits, idiosyncracies, temperament, constitutional taints (acquired or hereditary), avocation, climate, condition of the system at the time of administration, etc. Men who use these ready-made cure-alls forego the exercise of those powers of ratiocination in the adaptation of remedies to each individual case, according to its peculiarities and needs, which ever and always distinguish the learned from the ignorant. They insult the educated pharmacist by presuming that he could not prepare any combination required by the formula they wrote; and they only too often make clear the fact that they are incapable of originating such a combination of ingredients as the complexities of the case demand.

Prof. Geo. B. Wood, the scholar, scientist and author, in his great work published in 1860, entitled, "Therapeutics and Pharmacology," uses this language touching ready-made formulæ:

"It leads to an indolent reliance on mere authority by sparing the trouble of thought, and greatly conduces to an empiric and routine practice, neither creditable to the physician nor profitable to the patient. The author has preferably sought to give principles, by which the physician himself may construct formulæ suitable to each special case. He has endeavored to point out in reference to each medicine the peculiar circumstances which render its use appropriate, and the modification in doses it must undergo to adapt it to the varying circumstances of different cases, or the same case at different times. He has also called attention to the medicines with which in each special case it may be appropriately combined to aid or qualify its action. With this knowledge and that of the pathologic conditions to be corrected, the educated physician will be qualified to form much more appropriate associations or combinations of medicines, and to regulate much more correctly the proportions of the several ingredients in correspondence with the indications than any formulary can possibly do for him; nor can any medical man be considered educated or duly instructed until he is capable of constructing such formulæ for his own use and purposes."

The educated physician and educated pharmacist have delicately allied duties in their relations with the public, and no educated physician should allow his prescriptions to go to a mere trader in drugs; nor should a pharmacist ever commend an illiterate, uneducated physician. We should stand in an honorably helpful relation to each other and strive to excel in the breadth of our attainments, the excellence of our work.

W. T. AKINS, M.D.

Appendicitis: Comments Upon Dr. Haughton's Letter.

NEW YORK, Feb. 15, 1898.

To the Editor:—In the JOURNAL for Feb. 12, 1898, I find a reply from Dr. Haughton to Dr. Carstens which seems to fail to comprehend the subject of appendicitis in just the proper way. Perhaps there is no subject in medicine more thoroughly understood than that of appendicitis. The pathology, etiology, symptomatology and anatomy are all so completely recorded by our authorities that it is only the men who are too busy to read the works of authorities who imagine that there is still much room for discussion upon the subject. It has been demonstrated and recorded that the operative death-rate in acute and in chronic appendicitis without abscess, is only a fraction of 1 per cent. at the hands of several of our American surgeons.

It has been demonstrated and recorded that the men who represent diagnostic acumen of the highest order are powerless to make a prognosis about the outcome of any given case of appendicitis. It has been demonstrated and recorded that so large a proportion of "cured" appendicitis patients carry concretions and mucous inclusions and tubercular foci, and entozoa, and chronic abscesses that the eventual death-rate in ap-

pendicitis is not likely to show less than 25 per cent. death-rate under any form of medical treatment.

Curiously enough the reports of long lists of cures under medical treatment have seemed to be rather dishonest in their nature, and they bear the ear marks of a spirit of controversy rather than of an interest in pure science. A medical report on appendicitis cases should have several clearly defined features. A statement about the length of time of observation, of number of deaths, of number of occurrences of acute symptoms, of interval palpation findings, and of the interval condition of general health of each and every patient. I am acquainted with several physicians whose love for truth was so much greater than their love for controversy that they began to get statistics of this sort, but unfortunately for statistics they soon decided that their appendicitis patients must be operated upon promptly.

Apparently every physician who publishes long lists of appendicitis cases cured by medical treatment knows in his heart that he is doing wrong. When he congratulates a patient on getting well without operation he knows in his heart that that patient is very likely indeed to be carrying at least a mucous inclusion, and that he is not a cured patient. It is almost incomprehensible that men whose duty it is to devote their lives to the relief of suffering should be so fond of controversy that they can not be honest to themselves, or to their sacred profession, or to the people whose precious lives are entrusted to their care. Dr. Haughton has quoted one writer who published a list of appendicitis cases cured by medical treatment. I have challenged this writer's report, and although he has privately stated that he will not look up his cases, and that he will not tell the profession what has become of them, I shall keep trying in various ways to get him to do it, and I hope to get a general report in the interest of science before the matter is allowed to rest. I may have to bear a great deal of personal abuse and may be put to much trouble, but it is all for the sake of humanity, and that makes one's labors seem light. Clouds are coming over many a happy home in this fair land on this very day because the family physician who conscientiously tries to do the very best thing for his appendicitis patients is misled by controversial reports from physicians who do not realize that their irresponsible influence is carrying death in its trail.

ROBERT T. MORRIS, M.D.

Appendicitis.

MARIETTA, OHIO, Feb. 15, 1898.

To the Editor:—I have been interested for some time past to learn how it happens that some doctors have so many cases of appendicitis, upon which they find it necessary to operate. Is it not a fact that most of the so-called cases of appendicitis are primarily impaction of the cecum and colon, which by proper medication can be relieved and avoid the operation? These thoughts come to my mind from the fact that I have been in a very active general practice, medical and surgical, for the past fifty-four years, and have never had but one case that needed operation, and that one in my early service, and far advanced. I lanced it and he soon made a good recovery. I think that with those in which I have been called in consultation, I have treated more than one hundred cases without the loss of one, simply by medication. I have no doubt but the vermiform appendix plays its role in all such cases and was placed there for some useful purpose, although we may not fully understand it. I shall in the future as in the past, try medication before operation.

B. F. HART, M.D.

Foreign vs. American Schools.

WASHINGTON, D. C., Feb. 14, 1898.

To the Editor:—It is gratifying to note in the columns of the JOURNAL that several correspondents have had the courage