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Self-adjusting Stethoscope of Dr. Cammann.—We have the pleasure of presenting our readers with a description and an engraving of the double self-adjusting stethoscope recently invented by George P. Cammann, M. D., of this city. Dr. C. has been long known as having devoted himself, with much success, to the study of affections of the chest. The mode of investigation of disease under the name of “auscultatory percussion,” first made known by him and Dr. A. Clark, and published in the *New York Journal of Medicine and Surgery*, vol. iii. (July, 1840), established his reputation in this respect.

The stethoscope of Dr. Cammann presents, as will be seen by the engraving, an objective end, made of ebony, the extremity of which is about two inches in diameter, two tubes composed of gum elastic and metallic wire, two metallic tubes of German silver, two ivory knobs at the aural extremity, and a

movable elastic spring, so arranged as to adjust it, and keep it in its proper position.

M. Landouzy, of Paris, previous to 1850, formed a stethoscope having a number of gum-elastic tubes, by means of which several persons could listen at the same time. Dr. N. B. Marsh, of Cincinnati, in 1851, patented a stethoscope with two gum-elastic tubes, and a membrane over its objective end. Dr. Cammann does not, therefore, claim any originality on account of the two branches of his instrument, but on account of other advantages which it possesses. The instrument of M. Landouzy was not found of any practical use. The objections to that of Dr. Marsh are:—

1. That the aural extremity is composed of roughly-cut India-rubber, without any thing to adapt it to the ear, which both causes irritation and does not exclude sounds from without.

2. That it requires both hands to keep it in position.

3. That it gives a loud, muffled, and confused sound, caused by reverberation within the instrument, in consequence of the drum at the objective end and the inequality of the diameter of the bore. These circumstances render it of but little practical value.

The only resemblance between the instrument of Dr. Cammann and that of both Drs. Landouzy and Marsh is, that each is composed of more than one tube.

On reference to the engraving of the stethoscope of Dr. Cammann, which represents the instrument of one-third its size, it will be observed that the bell-like expansion of the objective extremity will be two and a half inches in diameter, with a convolvulus excavation, gently curving outwards, to present a rounded edge to the chest, in order to prevent causing pain to the patient. The bore of the instrument is two and a half lines in diameter, care being taken to have it made smooth and even.

The tubes are made of German silver, with a double curve towards the aural extremities, which curves require to be constructed with great care, so that the ivory knobs may rest closely upon the external openings of the ears.* When applied, it is necessary that the orifices of the knobs should point upwards. Some of the instruments are constructed with a spiral, and others with an elastic spring, as shown by the plate. Some of them are so arranged that they can be disjoined, to render them more portable.

One point, heretofore *sub judice*, is settled by this instrument, viz, that the sound is conducted entirely through the air, and not at all through the media, as these were, for experiment's sake, changed nine or more times, with-

*If any peculiarity of formation of the head of the observer prevents their thus resting, so as to exclude all external sounds, they should be carefully bent to give the required curve.

out affecting in the least the intensity of the conducted sound. On making the objective end solid, all sound was lost.

The advantages claimed for the instrument of Dr. Cammann are:—

1. That being applied, it adjusts itself closely to both ears, excluding all external sound.

2. It leaves both hands of the examiner free.

3. It gives sounds pure, and greatly increased in intensity, though differing in quality from those hitherto afforded by auscultation, the pitch being lower. This intensity is produced by both ears being acted upon at once, by the ear-pieces of the instrument fitting closely into the meatus of both ears, and by the smoothness and careful construction of the bore of the stethoscope as to curves, &c., according to the law of reflected sound.

4. Sounds not heard through the instrument in common use can be detected by this.

5. Sounds which are doubtful by ordinary instruments are made perfectly certain. Even when disease is seated in the central part of the lungs, they can be detected, when the ordinary stethoscope will fail to render them recognizable. The same advantages are obtained in examining the morbid sounds of the heart.

The great increase of intensity of sound by this instrument renders it valuable to those with impaired hearing.

In the use of this stethoscope it is necessary that the chest should be uncovered, to prevent all friction between it and the clothes; otherwise the sound thus generated is conducted with such intensity as to embarrass the examiner. A short practice may be required to become familiar with it, in consequence of the increased intensity of the sounds produced by it, and the difference between them and those afforded by ordinary auscultation. Many of the recognized physical signs of thoracic disease will be so modified as to be new to the examiner, but a short experience will enable him to appreciate them, and give them their true value.

These stethoscopes are manufactured and sold by Messrs. George Tieman & Co., No. 63, Chatham street, who pay particular attention to their construction—a point very essential to an instrument of this kind.