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IMPROVED METHOD OF EXAMINATION OF THE EAR.

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HAVING had considerable experience in aural affections, and well knowing the absolute necessity of accuracy of diagnosis, to arrive at which requires, aside from the subjective symptoms, a thorough knowledge of the physical signs presented, I am induced to briefly record what I conceive to be *a new method*, and when once brought into vogue by aural surgeons they will not only improve the facilities now afforded, but consider the *light* as practically "extended."

None of the authors whom I have consulted, and among them the best and most recent publications—Wilde, Pilcher and Kramer, make mention of the use of reflected *sun* light; and as simple as the means thus afforded, no practical aurist, after a single trial, will adopt any other in the use of direct sunlight.

The common method, as detailed by authors, borrowing an extract from Wilde, is to have "the patient seated beneath the examiner, with the head slightly bent, opposite a window *through which the sun is shining* at the moment, and, if possible, between the hours of eleven and three."

Now my method is available *when the sun shines*, between *sun-rise and sun-set*, by means of the following simple apparatus:—To a foot, or base board, about 8 inches square, is attached a rod 2 feet in length, bearing a sliding ring with a thumb screw, and an armature 12 inches long, having at the end a ball-and-socket joint with a thumb screw, and another short armature to hold a mirror six inches square.

To use the instrument (would not *Solar-scope* be an appropriate name?) raise the lower sash of the window, and place it upon the sill, and rest the beam of the sash upon the top of the rod. Swing the armature out of the window, and by means of the thumb screws adjust the mirror to direct the rays of the sun into any part of the room you please.*

* This contrivance has long been used in Boston, by Dr. CLAREE, for the purpose of directing the sun's rays upon the ear.—EDITORS.

With such an instrument, the patient can have a stream of beautiful, clear light playing upon the auricle and *within the meatus*, with the head erect; and the examiner may be seated by his side, and with the aid of his speculum make as complete examination as desirable, and all of this without the inconvenience of a heated head and dazzling sun rays.

Now that cold weather has come, I content myself by setting the *Solar-scope* upon a table, close to the window, and direct the rays of the sun, as in the former case, to any part of the room; or having first seated my patient, direct the rays immediately upon the auricle. The distance at which the patient may be seated from the instrument, may be a few feet or twenty, although ten feet is about right.

Those who know the difficulties attending some operations within the meatus and on the membrana tympani, such as removing polypi or any extraneous bodies, as well as a thorough explanation of the parts, cannot but appreciate this invention, as it is certainly *new*, in aural surgery. The same may be used also for more complete explorations within the vagina, rectum and throat, and nasal fossa—and, as such, will be found a valuable acquisition in the procurement of a bright light.

With one other improvement upon the *Speculum auris*, I close this article. The thing was suggested by a more determined effort to ascertain the true cause of a slight inflammation as well as a peculiar itching sensation on the membrana tympani of a patient, without any tinnitus or loss of hearing. The naked eye, in the best light, could discover nothing but the slightest vascularity of the membrane at the point of the malleus. On the application of a two-and-a-half inch focal magnifier, a small hair was found and removed, which the naked eye alone could not see, and by the removal of which, the symptoms immediately ceased.

Hence, springs up what I shall call the *Speculum-scope* (name suggested, however), and by means of which I conceive that a good thing has been found at last, which, indeed, may be, by longer and larger glasses, adapted to other speculums. Mine is a *forceps speculum*, with an attachment on its left handle of a two-and-a-half inch focal magnifying glass, which is about the true distance from the external opening of the speculum to the membrana tympani—after it is adjusted to the meatus. Some eyes, however, may require a larger or shorter focal glass. The lens may be thrown over the external opening of the speculum, when required.

I use the *Speculum-scope* in the following manner:—Having seated my patient in a chair, with the ear facing the *Solar-scope*, a stream of light is reflected upon the auricle. Seated in a chair beside the patient, the *Speculum-scope* is introduced into the meatus, and as soon as a good view is had, with the right index finger move the magnifier over the opening of the *Speculum*. The meatus is several times enlarged, and the beautiful mechanism of

the membrana tympani is viewed with all its lesions and deformities.

With the above two excellent instruments, I have examined nearly two hundred patients within the last six months, and I am satisfied that after they have been fully tried, they will take the precedence of all others—or at least be found so indispensable that no aurist will do without them.

Bath, Me., Nov. 14, 1859.

RESEARCHES UPON THE ERECTILE ORGANS OF THE FEMALE,
AND UPON THE TUBO-OVARIAN MUSCULAR APPARATUS, &c.

[Continued from page 276.]

By bringing these branches of pretended helicine arteries, however, into the field of the microscope, it was at once possible, with a power of 30 diameters, to make out traces of rupture at the extremities of the majority of them, and, by lightly compressing them, to cause little drops of the injection to exude. Wherever compression did not bring about this result, I have always found, instead of a diverticulum terminating in a cul-de-sac, a vessel twisted upon itself in the form of a loop. As to the arterial dilatations, terminating abruptly in a very minute vessel, an arrangement which Kölliker instances as the type of helicine arteries and a general fact, I have encountered them, as did Müller, occasionally only, and in that case I have simply found that in some instances a little branch detached itself from the convexity of the vascular loop, but much more frequently it appeared to be accidentally caused by an incomplete injection. Where, as may be observed in the figure of Kölliker, a fine vascular thread occupies the centre of a trabecule, relatively very large, it is sufficient to compress the dilatation to see the injection distend the pretended trabecule and transform it into a vessel equal in dimension to that of the diverticulum itself. In those instances which have served as the basis of these descriptions, the substance injected did not fill the vessel entirely, but occupied the centre only, and wherever it stopped, it ended in a filament of extreme tenuity. By rendering the sheaths described and figured by Müller, the thickness of which also often exceeds that of the vessel itself, transparent with acetic acid, I have, by means of magnifiers of 200 diameters, determined beyond question that they are nothing else than the walls of the artery itself, strengthened by an additional coat; but at the same time the cylinder of matter injected is far from corresponding in its dimensions to the calibre indicated by the annular fibres of the middle coat of the vessel. In one instance of this sort, the whole diameter of the artery invested with its pretended sheath was 0^{mm} 13; the cylinder of the injection occupied only 0^{mm} 03 of the

VOL. LXI.—19*