between the two affections. In substance the two diseases differ only in the following particulars, viz.: mucous membranous inflammation is more generally endemic, chronic and mild, except where the chronic form is aggravated from exposure to cold into an acute condition, while in la grippe the onset is usually sudden, acute in its course with tardy convalescence, intense in its symptomatology, prone to complications and epidemic in form.

In their pathogeny they resemble each other in this particular, that there is present in both a neurotic and an inflammatory factor; that in both there exist the characteristic features of acute coryza, plus the general febrile disturbance. In la grippe, the lesions are those of catarrhal inflammation of the mucous membrane of the eyes, nose, ear, throat, larynx, bronchi, stomach or intestines; while in simple catarrhal inflammation the process is limited, showing no disposition to invade all the mucous membranes simultaneously. In influenza the severity differs in each locality and in the person attacked; in some the bronchial effects are the most severe, while in others the gastric symptoms are the predominating manifestations. La grippe in itself has not proved to be generally fatal, but increases the mortality of other diseases, thus raising the general death rate. The attacks may be repeated in the same individual while the epidemic is raging, by an ordinary exposure to cold, as in common mucous membranous inflammation. No specific microbe or bacteria has as yet been demonstrated to exist in either the endemic or epidemic form of the disease, so far as I am aware. Although fifteen or twenty different microbes of no acknowledged specific importance have been observed to infest mucous membranes.

To the following authors I am especially indebted for much valuable information in the study of rhinology, laryngology and otology, viz.:

The late Sir Morrell Mackenzie, London; McBride, Edinburgh; Greville MacDonald, London; Francke H. Bosworth, N. Y.; Beverly Robinson, New York; Sajous, Philadelphia; Meyer, Michael, Hamburg; Elsberg, Hack, Freiburg; Beard, New York; Lennox Browne, London; St. John Roosa, New York; Albert H. Buck, New York; Scheck, Munich; Schneider, Cologne; Krause, Berlin; Mygind, Copenhagen; Dundas Grant, England, and others.

AN IMPROVED GALVANO-CAUTERY SNARE; ITS USE IN THE NOSE AND THROAT.

Read in the Section of Laryngology and Otology, at the Forty-third Annual Meeting of the American Medical Association, held at Detroit, Mich., June, 1892.

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OF ST. LOUIS, MO.

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There is a just demand on the part of the medical profession for instruments which fulfil every requirement on the score of precision, efficiency and cleanliness, and just as nearly as an instrument approaches these essentials, so nearly perfect does it become. Furthermore, any change in an established instrument, which causes it to approximate this ideal condition of things, constitutes an improvement which merits adoption.

To any one who has used the galvano-cautery

snare now in vogue, the thought must often have been presented that, in spite of the many advantages to be derived from their use, they exhibit many drawbacks which, long since, should have been overcome. So great, in fact, have these shortcomings appeared, that many have discarded the galvano-cautery from their armamentarium, and have adopted instead the cold snare of long ago.

A very considerable experience in the use of the galvano-cautery snare, has caused the writer carefully to consider the evident disadvantages, and as a result of the formulation of his thoughts in this direction, the instrument now presented to the Society was suggested.

In its construction, the instrument is very simple, being made with a view of permitting perfect cleanliness. True, the old snares were thoroughly aseptic so far as the wire was concerned; for that, becoming red-hot, would naturally destroy all germs in contact therewith. But thorough asepsis or even ordinary cleanliness is precluded, in such an instrument, from the fact that, the canula being wrapped with silk or

cotton thread, a drop of blood or a particle of secretion could not be entirely removed, and therefore constituted a first-class breeding medium for all sorts of bacteria. To obviate such a reasonable drawback, the instrument here presented has been insulated with hard rubber, which can be removed with ease from the canulae at any time and boiled.

The canulae themselves are readily removable from the other parts of the instrument, and hence are amenable to thorough aseptic preparation. They are a trifle larger than the canulae ordinarily in use, but this does not in any manner affect their utility.

Another inconvenience, or rather expense, is the great length of the platinum wire which all previous snares necessitate; the average required being about 15 inches, quite a costly item when often broken. In the writer's snare only 3 or 4 inches are necessary. This result is accomplished by passing through each canula a stout copper wire containing an eyelet in

its flattened end. Into this small opening the platinum wire is inserted and the ends bent so that, when the wire is pulled into the canulæ, it cannot escape. There is less inconvenience in threading this little eyelet than in passing the wire through the old canulæ.

An ivory tip similar to those for some time in use, and which is freely separable, completes the instrument.

The snare is applicable to the slide handle made by the McIntosh Battery and Optical Co., Chicago, Ill., from whom, as well as from A. S. Aloe & Co., St. Louis, Mo., the snare may be procured.

The advantages of such an instrument, so manifest upon examination, have been amply and clearly demonstrated in actual practice. They may be stated as follows:

1. Cleanliness, as already detailed. Every portion is removable, the rubber insulator, the two canulæ, two copper wires, the platinum wire and the ivory tip; it is therefore easy to treat them as is usually done with all proper surgical instruments prior to operation. One may readily appreciate the greater satisfaction to the surgeon when he operates with an instrument which he is morally certain is clean, than when he knows that it can never be entirely free from the objection of uncleanness.

2. Less expense. The platinum wire is not so readily broken, and when it is, may be replaced at a trifling cost.

3. The instrument is firmer, and therefore more easy of manipulation and use.

4. The current required is beyond a doubt considerably less. I have verified this a number of times, and when my storage battery has been out of order, I have, on a number of occasions, used one of the cells, instead of the two which I have found necessary with all other snares.

5. There is no danger of short-circuiting the current. This difficulty with other snares is by no means uncommon; for it not infrequently happens that when a body is engaged and the wire drawn taut, no current passes through the wire and therefore no action results. This is due either to connection of the wires below or to the absence of any electricity passing from the canulæ to the wire above. Such a condition of things is manifestly impossible in my instrument, in which the connection is made and maintained by means of the copper wire and is not at all dependent upon the canulæ, at their orifice.

The improved snare should increase the range of application and use of the galvano-cautery snare in the nose and throat, for it renders operations safe, certain and reliable procedures.

In removing tonsils, more than in any other particular, is this exemplified. Some six months ago I read a paper before the St. Louis Medical Society, describing the operation of removal of hypertrophied tonsils by means of the ordinary galvano-cautery snare. The use of this new snare has fortified my opinion that this is the safest and most satisfactory method for their removal. Tonsils in all conditions of hypertrophy, except when they are thoroughly impacted between the pillars of the palate (even then a small portion may be removed), are excised with more precision and with less danger and inconvenience than by any other method, while pain and the time required are not increased.

The *modus operandi* is simple. After applying a

solution of cocaine to the mucous membrane, in order to render it insensible to the presence of the wire and moderately to anæsthetize it, the tonsil is drawn out from between the palatal pillars by means of forceps, and the snare is engaged so that as much of the tonsil may be removed as is desired or desirable. One need never fear that hæmorrhage will result in the adult, or that a portion of the palate in children will be accidentally removed. Bleeding never follows and healing is an uninterrupted sequence. The ear pain and the inflammation resulting from snare operations are no more severe or serious than from the tonsillotomy operation. The snare may be used in cases where it is desirable to combine with the cauterization of the tonsil the removal of a small portion of the organ.

Of late, I have been using this snare in removing the uvula, instead of the scissors as I formerly did. The uvula is allowed to drop into the loop, the wire is drawn tight, the current turned on and the uvula removed, no forceps being necessary. I have noticed that in the twelve cases upon which I have thus far operated, the patients were able to eat at the succeeding mealtime, a rare occurrence in previous operations. The explanation would appear to be that the forceps or forks of the uvulotome draw down the mucous membrane so that more of the mucous membrane is cut away than of the muscular tissue, whereby a considerable portion of the latter remains exposed, making the whole organ, very naturally, exquisitely sensitive. Again, the stump, after the cautery operation, is more even, no hæmorrhage takes place and recovery is more rapid.

In the nose, of course, the snare is indicated wherever the old instrument could be used; in the removal of nasal polypi, portions of mucous membrane and of the turbinated bones, it suggests itself. From the certainty of its action and its advantages already given, it should displace the cold snare and the forceps in the removal of polypi—its action is quicker, no hæmorrhage occurs and recurrence is more infrequent. Besides, there is no need of after cauterization as when the cold snare alone is used.

Incidentally I may state that I am having all my cautery points covered with hard rubber instead of the thread or silk which have so long been obnoxious to me on account of the impossibility of keeping them clean. In this way a possible evil is overcome.

In conclusion, I desire to express my thanks to Mr. Lou P. Aloe for kindness and consideration in the development of the instrument which it has been my pleasure to present to the Association.

Since the foregoing was written the following communication was addressed to the writer:

"The snare is certainly possessed of advantages over the ordinary forms, notably among which are greater ease with which it can be cleaned, economy in platinum wire and less amprage required in heating. This latter feature showed very plainly when testing yesterday and to-day a new device for the use of the Edison current in galvano-cautery. Twenty amperes of current would not satisfactorily heat the ordinary form of snare; 10 to 15 brought your snare up to proper heat.

(Signed) MCINTOSH B. AND O. CO.,
C. ALFRED SMITH, Sec'y."

Quod erat demonstrandum.
303 North Grand Ave.

SIR JOSEPH LISTER, having reached the age of sixty-five, the age-limit by the regulations of King's College, Edinburgh, has retired from the clinical lectureship.