instruments will produce the same note for a given length of wire, since the tension of the wire is immaterial.

Compare this with the Edelmann-Galton whistle, where the construction alone is very complicated and open to many variations; where, too, the note produced by a given length of the pipe varies with the distance from the air-outlet and the force of the air-blast. So many factors are involved that each instrument requires testing by the sensitive flame; a special table is then drawn up, which must be consulted to read the results obtained.

As against this, with a fixed gauge steel wire every monochord will produce the same note for a particular length of wire thrown into vibration (at the same temperature).

A A'. The steel wire (gauge 26); fixed at either end of
F F, the frame, marked in cm.
B, bridge—sliding along F.
E, effective length of wire.
H, handle.

(2) The monochord is simple to use, the bridge can be moved along the bar very easily, and by "bracketing" the upper tone limit can quickly be found and read off in centimetres. The absolute upper tone limit in vibrations per second is quite unnecessary from a practical clinical point of view; it can be worked out mathematically, or be discovered experimentally by the sensitive flame.

(3) By placing the support of the wire on the mastoid process the upper tone limit through bone can be tested; this cannot be done with Galton's whistle. Some most interesting results can be observed by this method, and, indeed, they may change some of the previously accepted groupings of cases of deafness.

Normally the hearing for high notes is represented by 12-14 cm. of wire through air, and 10-12 cm. through the bone—that is, the air-bone relation (Rinne) is always negative for high notes. To this there appears to be no exception either in normal or deaf individuals.

CLINICAL NOTE.

CHOLESTEATOMA OF THE LATERAL PHARYNX.

By JOHN J. KYLE, M.D., F.A.C.S.,
Los Angeles, Calif.

A CYSTIC cholesteatoma of the tonsil in a rare disease. I have had a communication from the Librarian of the Surgeon-General's Office (U.S. Army) saying that there have been only two cases reported—one

by Major Norval H. Pierce, of Chicago, and the other by Wyatt Wingrave.

Cholesteatoma is a frequent complication of chronic middle-ear suppuration, and usually demands a radical mastoid operation. Cholesteatoma in the ear is a desquamative process of the epidermis lining the external auditory canal, occurring as a primary or secondary disease, and characterised by the formation of scale-like epithelial cells arranged in layers containing cholesterol. Sometimes the disease may occur secondary to a purulent inflammation of the external auditory canal or middle ear. The masses filling the canal are then cheesy-like, foul-smelling, and bathed in pus.

Cholesteatoma of the tonsils or lateral wall of the throat is a secondarily chronic purulent inflammation of the tonsil and adjacent structure.

In the secondary form the disease may also extend to the middle ear or to the mastoid cells by pressure, which destroys the osseous wall or membrana tympani, causing a disintegration of normal structures. In the secondary form it consists of broken-down epithelium cells and pus, with a serrated edge. The symptoms vary according to the stage of the disease and the consistency of the cholesteatoma cyst.

Located behind the tonsil the morphology differs from that in the chronic middle-ear suppuration. The cavity is round and serrated and has a flat floor. It does not bleed readily, no discolouring in the tissues, no odour. Slight pain is usually present, soreness of neck, and in my case has lasted many years. It is a slow-forming mass, and may go on for many years and only be accidentally found. It is very difficult to cure. We have curetted the case five times, and still there are symptoms of the cholesteatoma returning. After curettement it is best to treat with tincture of iodine.

This patient is a woman, and aged fifty-three.

SOCIETIES' PROCEEDINGS.

ROYAL SOCIETY OF MEDICINE—OTOLOGICAL SECTION.

Meeting on November 16, 1917.

President: H. J. BANKS-DAVIS, M.B., in the Chair.

Gastro-intestinal Sepsis, a Cause of Menière's Symptoms.—**T. Mark Hovell.**—Since Menière's paper was published on February 9, 1861, dealing with a set of symptoms produced by hæmorrhage into the labyrinth, and consequently producing an incurable form of deafness, this set of symptoms, with which his name has been associated, has conveyed to the medical profession at large the idea of a condition of the ear for the relief of which but little can be done.

Although aural surgeons of late years have clearly drawn the distinction between Menière's disease, or the class of cases to which Menière referred in his paper, occurring suddenly in patients without previous ear trouble, and Menière's symptom-complex occurring in patients suffering from an affection of the middle ear—which condition