and Fowke carefully counted the rings. The total was 255 years. Thus we found that the tree sprouted in 1615.

A stone grave was found under this stump, and the tree roots extended over and down upon all sides. How many years previous to the growing of the sapling the burial was made, no man may know.

It is fortunate this record was set down at the time of our exploration.

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QUOTATIONS

A FAMILY OF DOCTORS

DR. WILLIAM HENRY WELCH, the illustrious pathologist, was laid to rest last May in the "buryal-yard" of the Connecticut village where he was born. An article by Dr. Harvey Cushing on "The Doctors Welch of Norfolk," reprinted from *The New England Journal of Medicine,* has just appeared in pamphlet form. The author's sense of atmosphere and form, the restraint and delicacy of his literary art, may stir professional writers to envy or humility. He makes the reader want to go to unspoiled Norfolk, to its village green, rich in stately trees. People fortunate enough to live there stay long. In two years the average age of six persons who died was 93. In comparison the Welches are cut off in the flower of youth, in their early eighties.

Hopestill Welch, William Henry's great-grandfather, came to Norfolk in 1772. In three generations there were "at least ten Doctors Welch." As was not uncommon in New England, the profession was hereditary. "Ask the aged apothecary in the village which of the Doctors Welch was the more celebrated, he would certainly say William Wickham, the father of this William Henry." Ask him why, he would probably reply:

"If you don't believe me, just ask any middle-aged person you may chance to meet up with for thirty miles around, and see if they don't agree. Most of 'em will remember when they used to put a light in the window for him should be happen by in the dead of night. He was never known to send out any bills —pretended to forget that people owed him money— and those who paid had to press it on him."

This is a type that lingers in old Yankee memories. The Doctor was the son of a doctor, sometimes the son-in-law of a doctor. Cheerful, indulgent, wise, a good diagnostician, familiar with heredity before it was talked about, he was a sage, a friend, often a "character." He might be highly skilful, even if his medical science was antiquated. Thus of Benjamin Welch, Jr., Yale M.D., 1823, who practiced for fifty-four years, it was said in reference to his expertness as a surgeon: "Don't give up hope before you've sent for Dr. Benjamin." There is a tablet to William Henry on William Wickham Welch's house, where he was born. The drinking fountain in front, built in memory of the father, bears the inscription so singularly prophesying the son: "Fons sum solati talis et ipse fuit."

Obscure or famous, here was a tribe of bringers of relief to men. It is good to think of the world-renowned physician sleeping among his fathers in the burying ground on the old Canaan road, "in the shadow and solitude of great trees."—*The New York Times.*

SCIENTIFIC APPARATUS AND LABORATORY METHODS

A HEAD CLAMP FOR OPERATIONS ON CATS

THE head clamp here described, modified from one originally designed by Dr. Dusser de Barenne, has proved very efficient in a large number of operations on cats. It consists of four vertical bars, A, B, C, D, six transverse bars, E, F, G, H, I, J, and six screws, K, L, M, N, O, P. The height of the clamp from E to J is 5 inches; the width from A to D is $2\frac{3}{4}$ inches.

The vertical bars A and D are threaded; B and C are not. All four are firmly fixed into the transverse pieces E and J. Bar J is extended laterally into two prongs. Bar G is fixed; F, H and I are movable, and slide on the smooth uprights B and C. The ends of the movable pieces are made U-shaped, so as to fit half around the threaded uprights A and D without touching them. They can be retained in any desired position by the screws K, L, M, N, O, P. Screws M and N are thinner than the others to permit of close approximation of G and H.

In use, G and H are set close together; F and I are separated some distance from them. G and H are inserted into the anesthetized animal's mouth behind the canine teeth. They are then separated a small amount by screwing down M and N. This keeps the mouth open, through which the animal breathes, and through which ether may be administered. Bar F is screwed down on the nose by K and L; bar I is screwed up under the lower jaw by O and P. The

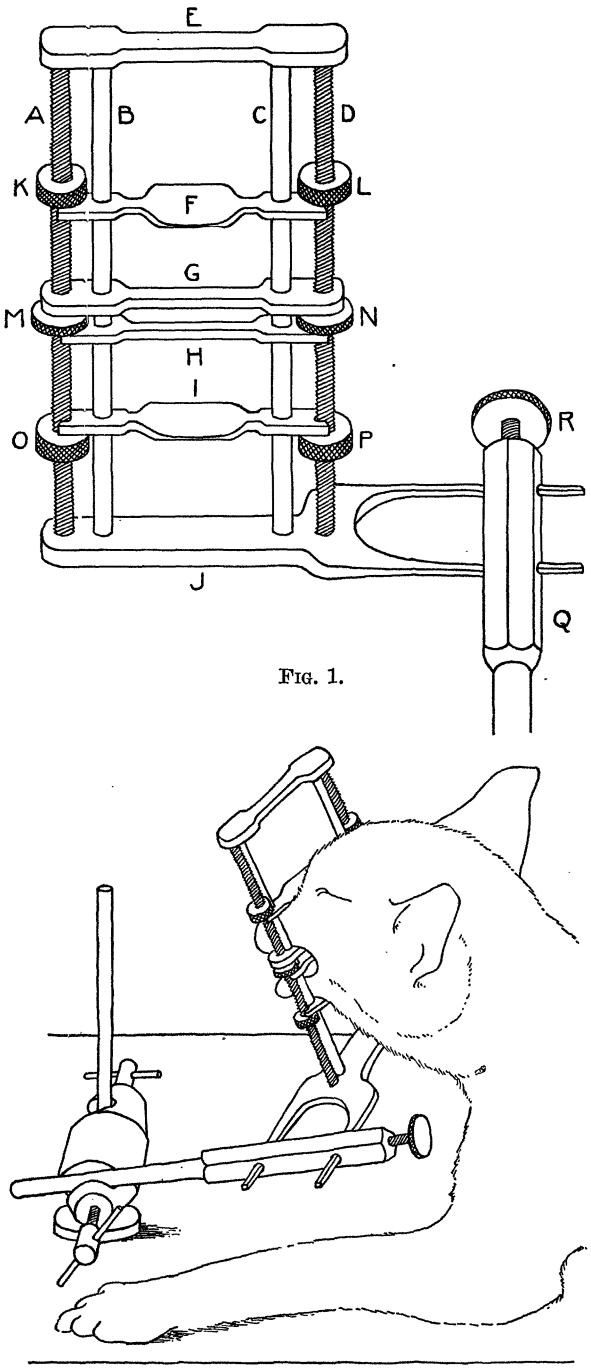

FIG. 1.

FIG. 2.

clamp thus fixed on the animal's head is inserted into the rod Q and fastened tightly by the screw R. Q is then attached to an upright rod, which is part of the operating table, by means of a universal clamp shown in Fig. 2. This clamp enables the head to be tilted to any desired angle. The figures show the instrument set up for operation on the dorsum of the head and back. It can, however, be reversed for operations on the ventral surface.

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A SIMPLE METHOD FOR INCREASING THE AMPLIFICATION OF THE MAREY TAMBOUR

ONE of the greatest difficulties in making a record of the carotid or jugular pulse is in obtaining enough amplification. The device suggested in this paper makes it possible to increase the amplification five times as much as that obtained by use of the stock Marey Tambour. Also, by counter balancing the system of levers, increased sensitivity is obtained.

The following is a drawing of the device which we

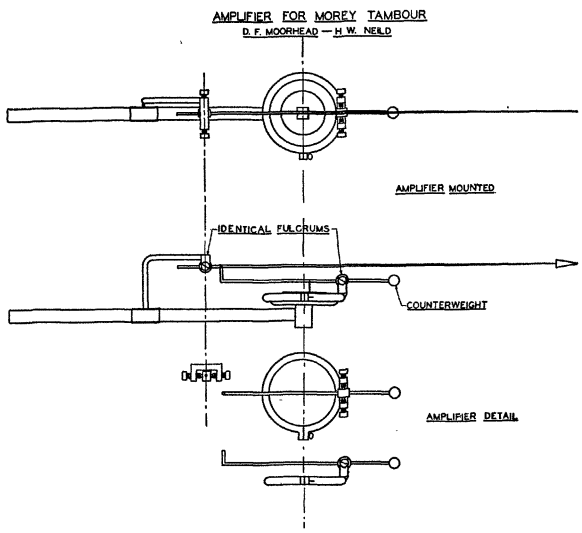

FIG. 1.

have found very satisfactory in situations that require great amplification and increased sensitivity.

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SPECIAL ARTICLES

THE PROBLEM OF STIMULATION DEAFNESS AS STUDIED BY AUDITORY NERVE TECHNIQUE

THE chief method of investigation of stimulation deafness has consisted in the histological examination of the cochlea following prolonged stimulation of the ear by sound. Results obtained by this method have been inconclusive, due both to inconsistencies in the findings of different investigators and to the fact that