the drum started when it is discovered the other points need adjustment. A scientific paper is no place to record the observations of physiologists under such conditions—even though they be accurate!

To meet the need for a low-priced variable tension clamp for the physiology laboratory two clamps of slightly different construction have been designed. The main differences in numbers 1 and 2, in the accompanying figure, are the springs and the construction of the joint between the two halves. In clamp 1 there is a helical spring (c) and the male piece A is held accurately in place by the u-shaped female piece B. Clamp 2 has a flat v spring held in place by notches in both A and B.

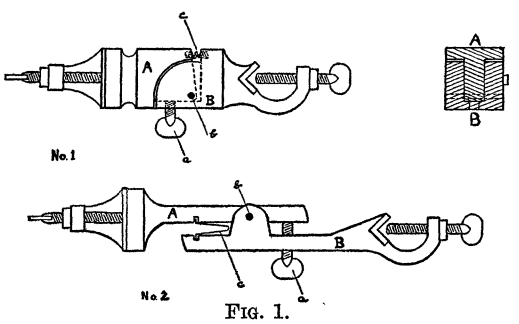

FIG. 1.

Part A of both clamps holds recording devices, while the other half goes on the support. The friction of the writing points against the smoked paper is easily changed by regulating the screw (a) which pushes against the flat surface of part A. The pin (b) holds the two halves of the clamp in place.

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A DEVICE FOR PERMANENTLY MARKING LABORATORY ANIMALS

TATTOOING is probably the best of the methods for marking laboratory animals such as rabbits and monkeys, but is seldom used because of the cost of commercial electrical tattooing machines and because of the undue labor necessary to properly tattoo by hand. Below is described a simple and inexpensive machine.

The apparatus is made from a commercial type of

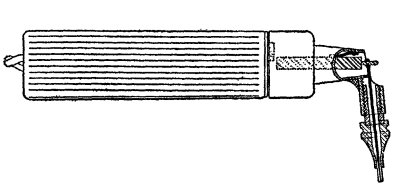

FIG. 1. A device for permanently marking laboratory animals.

electric razor[1] which can be purchased for about one dollar. The guard and a portion of the removable head are cut off and a special head, constructed as shown in Fig. 1, is soldered or brazed into position. The adjustable housing for the needle, which serves both as a guide for the tattooing needle and as a reservoir for the ink supply, is made from a hypodermic needle of the proper gauge to permit free motion of the needle within it. The tattooing needle is made from a sewing needle, one end of which is softened in a flame and shaped to fit without binding over the vibrating member of the head. The needle must be retempered before use by plunging it, after heating to a red heat, into an oil bath. The housing should be adjusted so that the needle extends about 0.5 mm beyond the tip when at its maximum point of oscillation. To facilitate marking, the apparatus should be connected in series with a foot switch[2] to the 110 volt alternating current supply.

The ear of the animal to be tattooed is cleaned with acetone or ether, then the tip of the apparatus, previously filled with India ink, is pressed firmly against the ear and the current turned on. Marking is done at the rate of 2–3 mm per second. Excess ink should be removed with acetone.

Incidentally, this apparatus can be used to excellent advantage in preparing fine designs on mimeograph stencils. For this purpose a sheet of paper on which the desired design has been traced should be placed over the stencil.

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[1] Tark razor.

[2] Floorboard switch for double beam headlights, as used on General Motors cars.

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Erratum: The date at the end of the article by Professor M. S. Kharasch and Dr. R. R. Legault, page 615 in the issue of SCIENCE for June 21, should be 1933 instead of 1923.