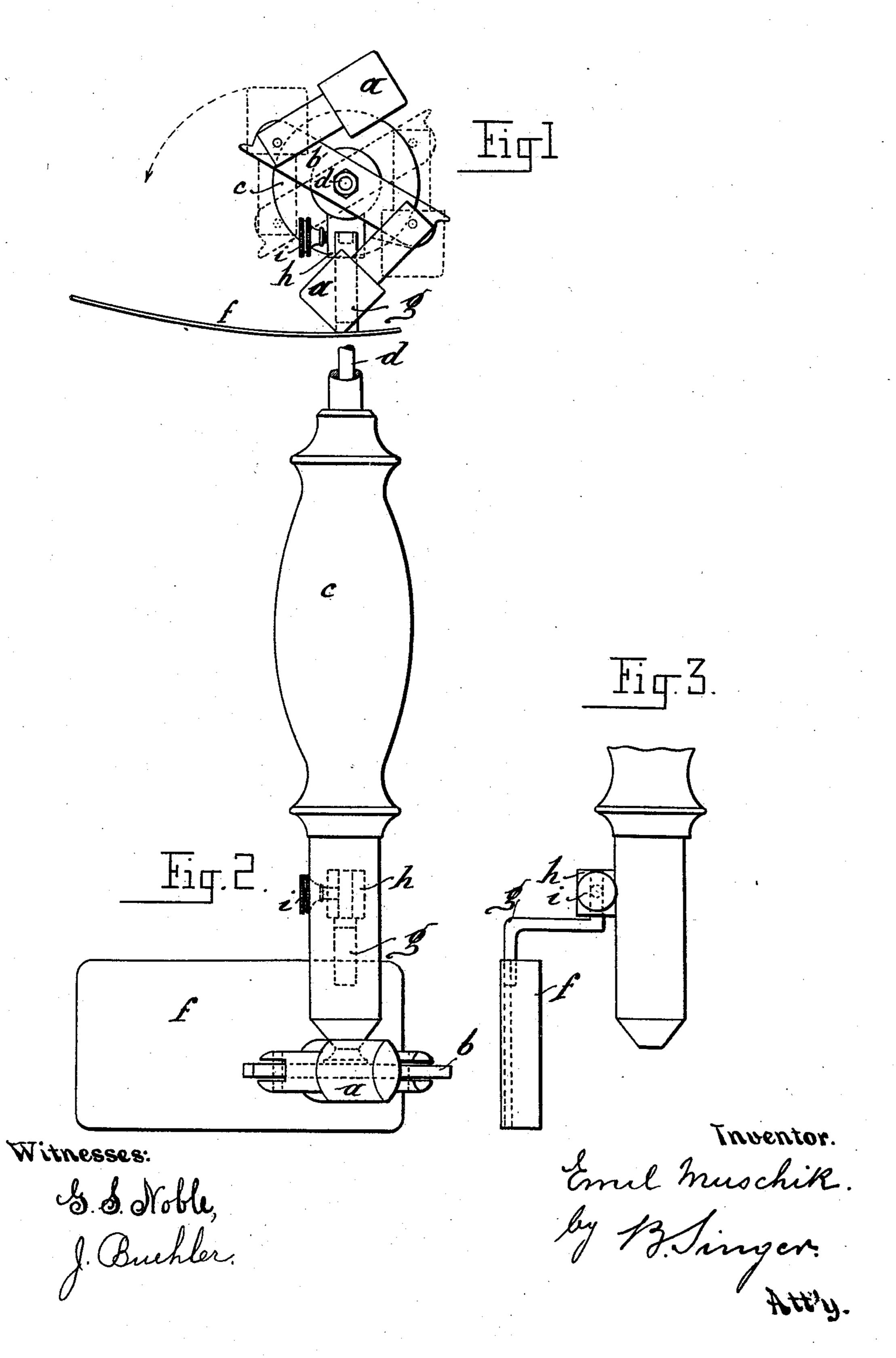
## E. MUSCHIK. MASSAGE DEVICE.

(Application filed June 6, 1898.)

(No Model.)



## United States Patent Office.

EMIL MUSCHIK, OF HAMBURG, GERMANY.

## MASSAGE DEVICE.

SPECIFICATION forming part of Letters Patent No. 636,163, dated October 31, 1899.

Application filed June 6, 1898. Serial No. 682,752. (No model.)

To all whom it may concern:

Be it known that I, EMIL MUSCHIK, a citizen of the Empire of Germany, residing at Hamburg, Germany, have invented certain new and 5 useful Improvements in Surgical Friction Instruments, of which the following is a specification.

The present invention relates to surgical friction instruments; and the special object to thereof is an improved instrument of this class the action of which upon the body can

be graduated at will.

The friction or shampooing instruments usually employed do not satisfy the require-15 ments of an efficacious friction, because they only act upon the outer parts of the body containing the larger blood vessels, while they produce no action upon the smaller vessels, although the proper working of these latter 20 is of the greatest importance for the circulation of the blood. Moreover, in certain cases the use of these instruments is injurious, because in applying them too strongly on the parts of the body treated they can easily ex-25 ercise an injurious influence upon the health. The instrument forming the object of the present invention does not offer these objections, because it produces an easy manipulation of the body as far as the internal parts 30 and can act with more or less force upon the part of the body under operation. These results are obtained by causing small articulated hammers turning around an axle to strike against a plate applied on the part of 35 the body to be treated, as more fully described and claimed hereinafter.

In the annexed drawings is shown an embodiment of this improved instrument as an

example.

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Figure 1 is a front view of the end of the instrument. Fig. 2 is a plan view, and Fig. 3 is a side view, of same.

In the different figures similar letters of reference denote corresponding parts.

a indicates the hammers.

b is a transversal rod to which the hammers a are articulated.

c is a handle for holding the instrument. d is the rotary axle of the instrument. f is the friction-plate.

verse rod, a flexible revolving axle to which the transverse rod is secured, a handle in which revolves the flexible axle and which serves to hold the instrument, and a friction- 90 plate adapted to be applied to the body, and against which the hammers successively strike to transmit the blows to the correspond-

g is the support of the plate.

h is an extension of the handle c, provided with a notch, and, finally, i is a set-screw serv-

ing to hold the support g.

The instrument is essentially composed of 55 two hammers a, articulated at the ends of the transverse rod b, which can be turned by the flexible axle d, to which the said rod is secured. The axle d is guided by the handle c, in which it turns and rotates either by means 60 of any suitable mechanism or by hand.

Under the hammers a is a plate f, held by a support g, which is fixed, by means of the set-screw i, in a notch of the extension h of

the handle.

To use the instrument, the plate f is applied on the part of the body to be operated upon and the axle d is rotated. The hammers, actuated by the axle, strike successively and at short intervals against the plate f, at 70 the same time describing an arc, as shown in Fig. 1. The result of this is that the plate f, and consequently the part of the body on which it is applied, receive blows quickly succeeding each other, so that the plate and the 75 corresponding part of the body are progressively vibrated, which is very efficacious for the cure.

According to the speed of the axle d and to the weight of the hammers  $\alpha$  blows of a vari- 80 able intensity are obtained, according to need.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a surgical friction instrument, the com- 85 bination of hammers articulated on a transing part of the body, substantially as and for the purpose set forth.

EMIL MUSCHIK.

Witnesses:

E. H. L. MUMMENHOFF, OTTO W. HELLMINK.