

J. B. WANTZ.
MASSAGING IMPLEMENT.

(Application filed Mar. 10, 1902.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 2.

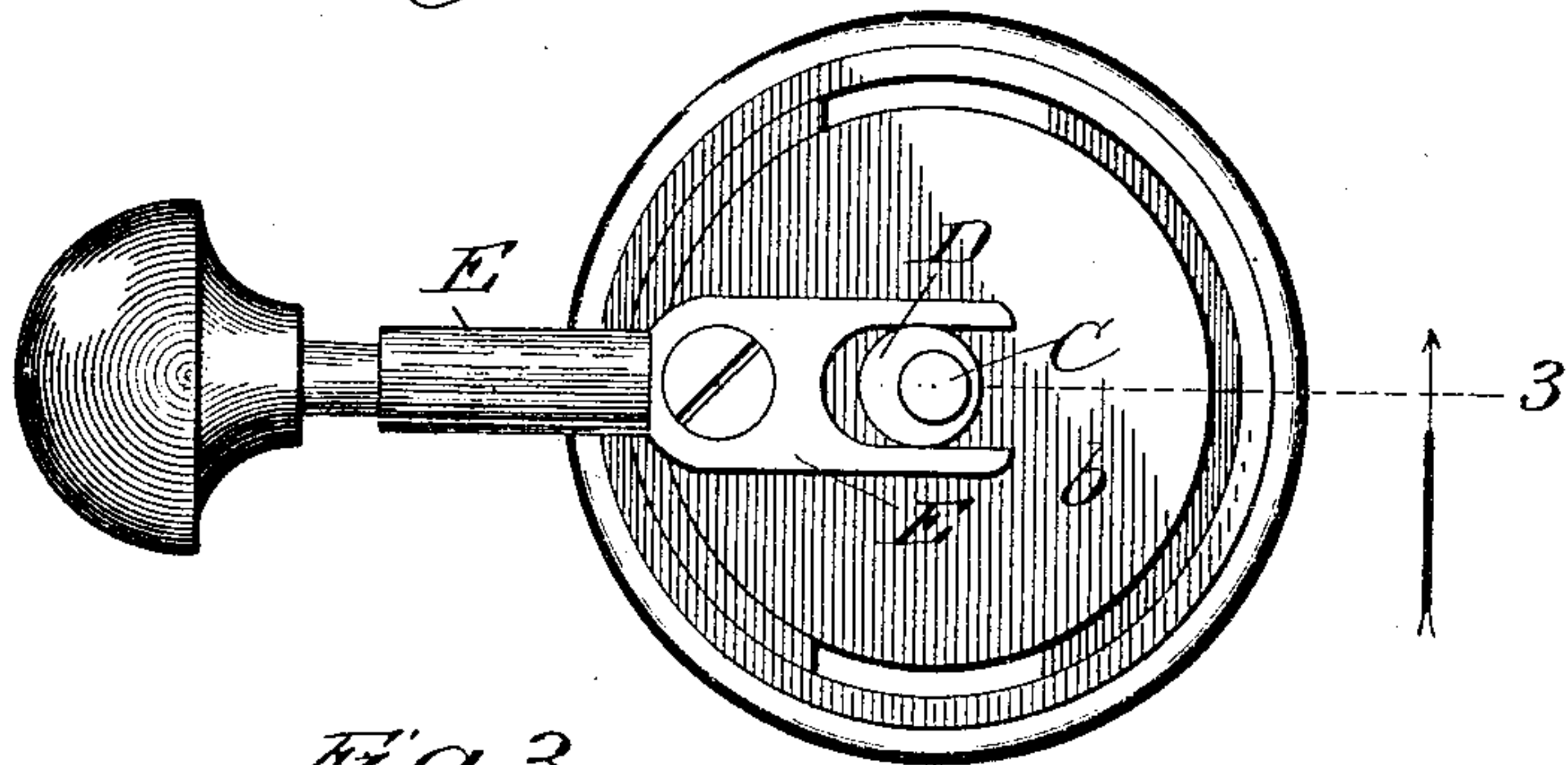


Fig. 3.

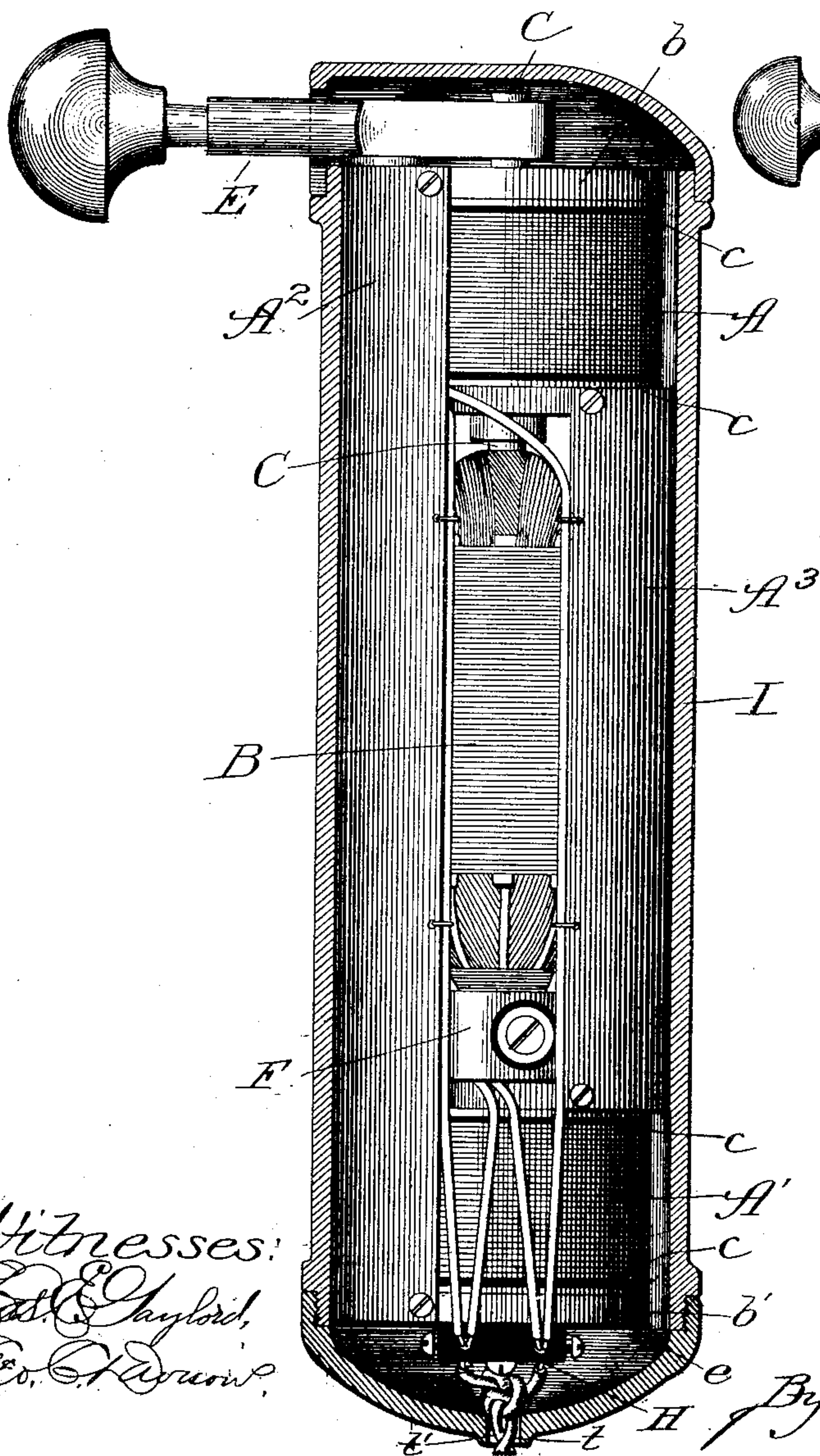
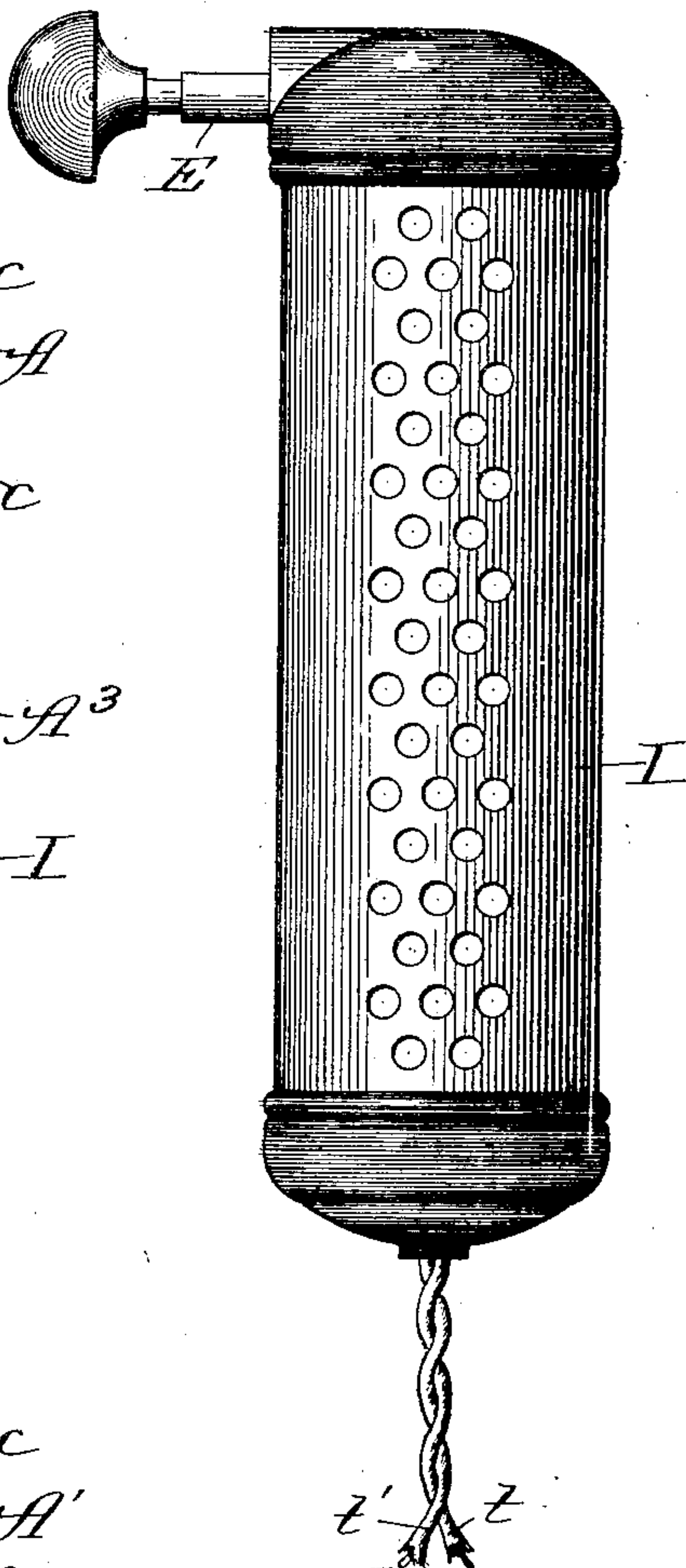


Fig. 1.



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Fig. 4.

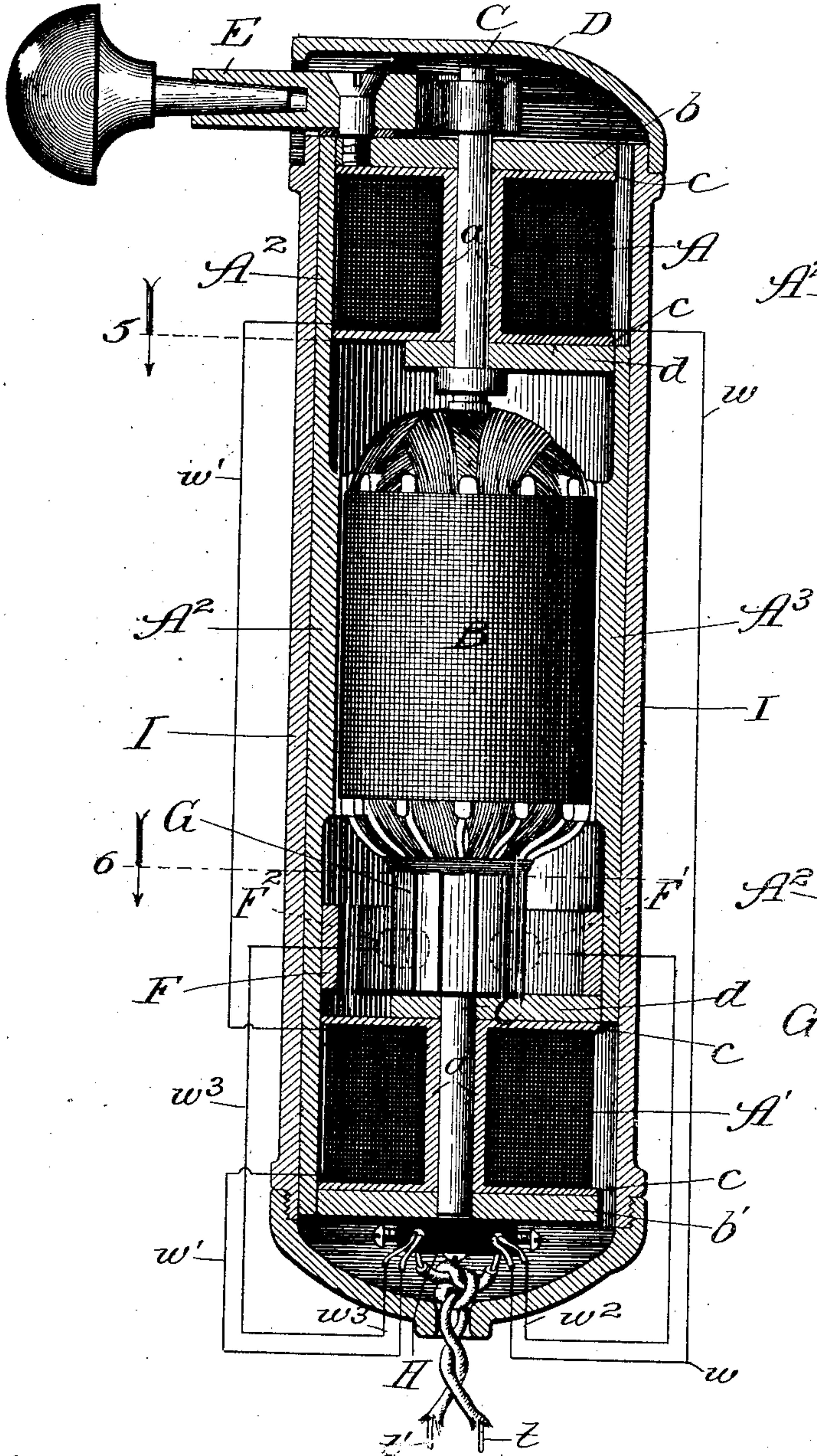


Fig. 5.

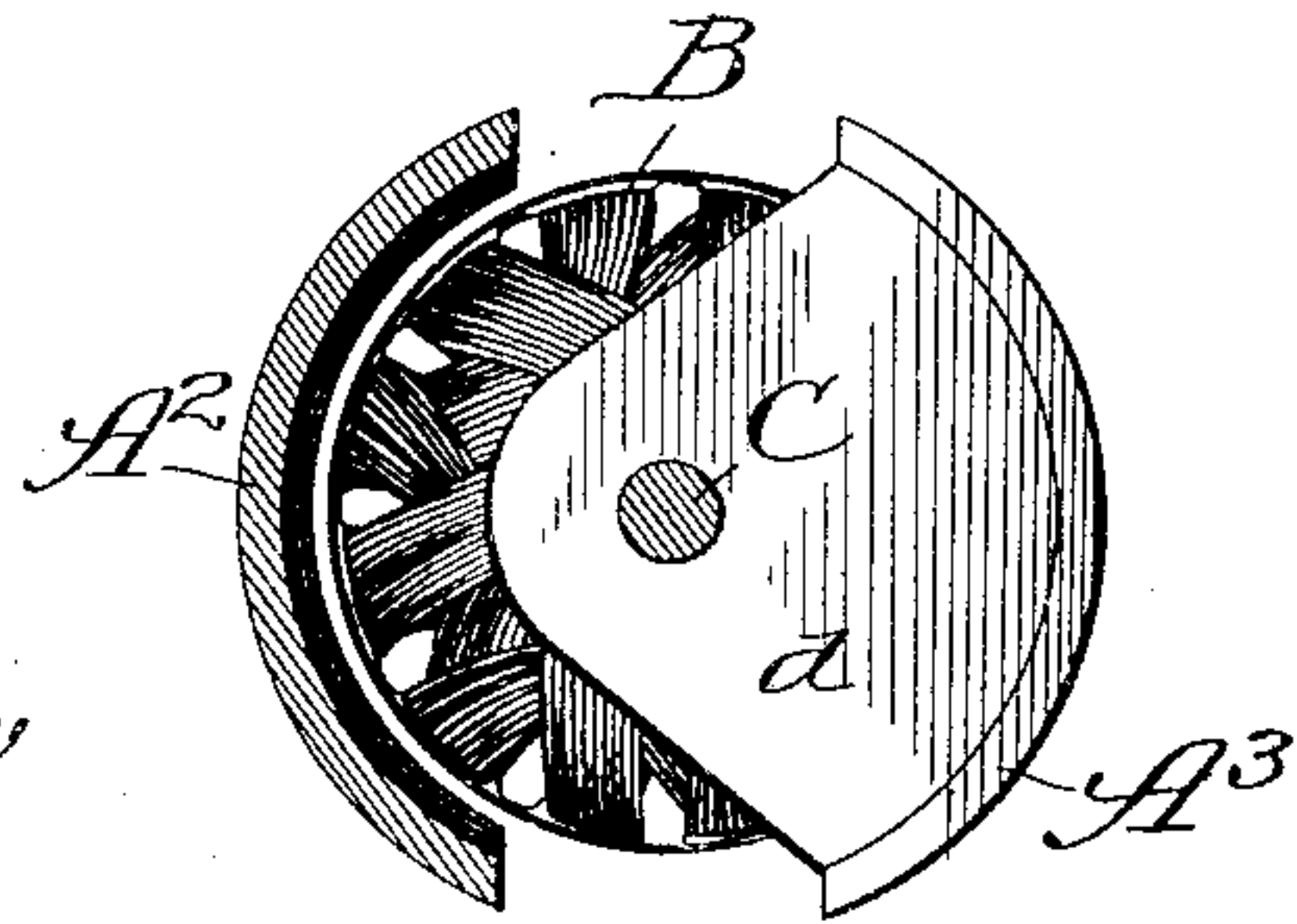
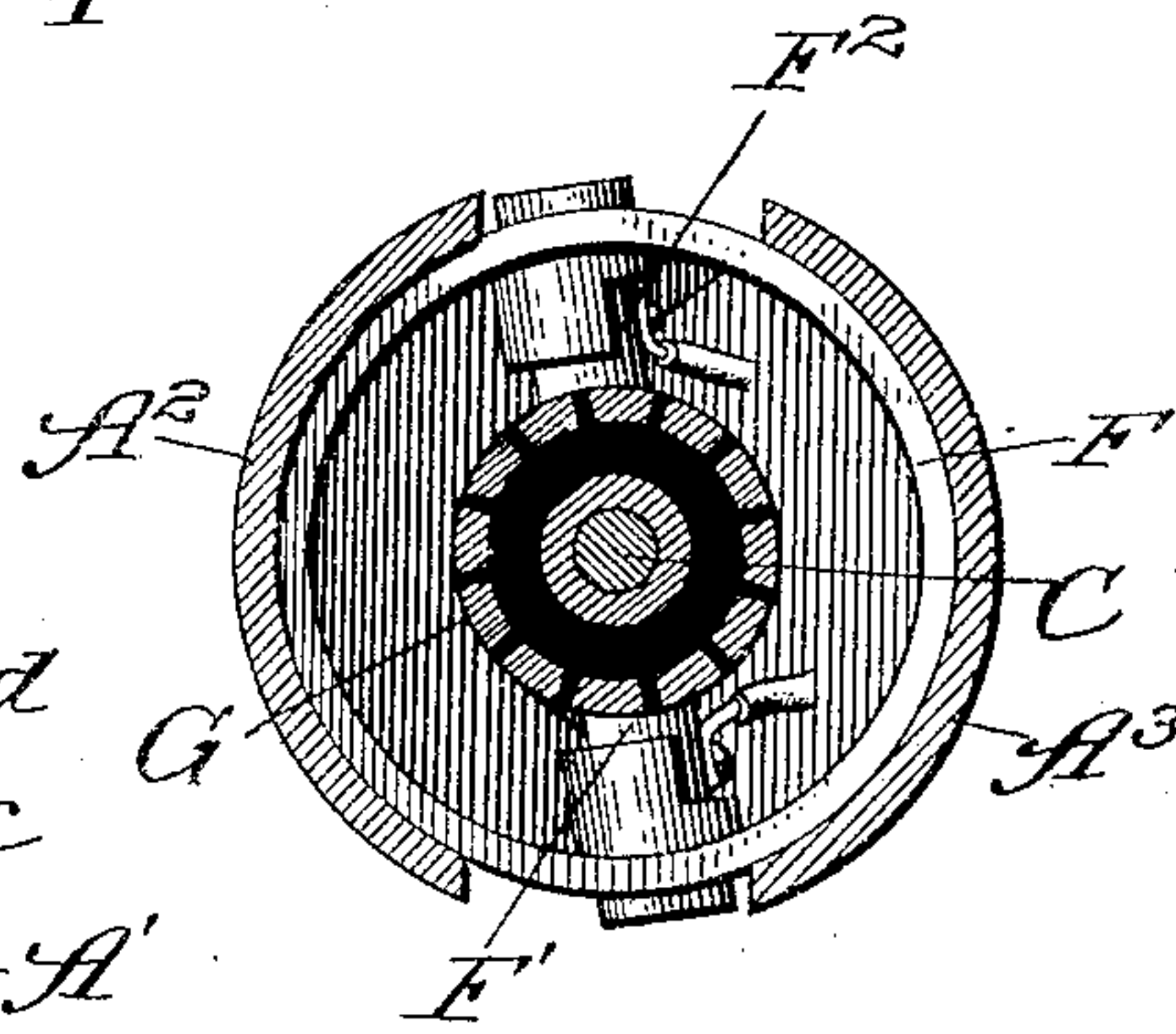


Fig. 6.



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UNITED STATES PATENT OFFICE.

JULIUS B. WANTZ, OF CHICAGO, ILLINOIS, ASSIGNOR TO VICTOR ELECTRIC COMPANY, A CORPORATION OF ILLINOIS.

MASSAGING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 703,100, dated June 24, 1902.

Application filed March 10, 1902. Serial No. 97,475. (No model.)

To all whom it may concern:

Be it known that I, JULIUS B. WANTZ, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Massaging Implements, of which the following is a specification.

My invention relates to an improvement in the class of implements for massaging by the action of a rapidly-oscillating vibrator actuated through the medium of an electric motor.

The primary object of my improvement is to provide a construction of massaging implement whereby it shall be rendered so compact and light that the entire device including the motor may be held for application to the patient in the hand of the operator, and may therefore also be conveniently carried from place to place.

To these ends my invention consists in the general construction of my improved implement; and it also consists in details of construction and combinations of parts, all as hereinafter set forth, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a view inside elevation of the implement. Fig. 2 is an enlarged end view of the same. Fig. 3 is a section taken through the casing at the line 3 on Fig. 2 and viewed in the direction of the arrow, but showing in elevation the parts within the casing. Fig. 4 is a view of the device in longitudinal sectional elevation. Fig. 5 is a section taken at the line 5 on Fig. 4 and viewed in the direction of the arrow. Fig. 6 is a section taken at the line 6 on Fig. 4 and viewed in the direction of the arrow.

A and A' are spools of a divided field-magnet, disposed at opposite ends of the rotary armature B, the shaft C of which is journaled at its opposite ends in the tubular cores *a a* of the spools, and one end of the shaft projects beyond the face of the adjacent spool A and there carries a cam D, which is embraced by the slotted end of a vibrator E, pivoted between its ends to the steel face *b* of that spool. The spools are faced at their outer ends with disks *b* and *b'*, respectively, of magnetic metal, preferably steel. The spools are connected together from the disks *b* and *b'* by a metal bar

A², shown of concavo-convex cross-section, and between the inner spool-heads *c* by a similar bar A³, provided at its opposite ends with V-shaped steel flanges *d d*, through the apexes of which the shaft C passes. The bar A³ also has fastened to it adjacent to the spool A' a brass ring F, surrounding the commutator G at one end of the armature and carrying the brushes F' F².

On the outer face of the spool A' and insulated therefrom, as by a mica disk *e*, is fastened a binding-post H. A wire *w* connects the binding-post from one terminal with the spool A, which is connected by a wire *w'* with the spool A' and leads through the latter to the opposite terminal of the binding-post, from which a wire *w*³ connects it with the brush F², while the terminal of the binding-post from which the wire *w* proceeds is connected with the brush F' by a wire *w*². The course of the current, therefore, for driving the motor from a suitable generator (not shown) connected with the binding-post terminals by the wires *t t'* is from the wire *t* on the wire *w* through the spool A, thence by the wire *w'* through the spool A' to the wire *t'*, and by the wire *w*² from the wire *t* through the commutator and back to the wire *t'* on the wire *w*³.

The motor is inclosed in a casing I, of insulating material, such as hard rubber, which should be perforated, as indicated in Fig. 1, to permit the circulation of air about the motor for keeping it cool.

To operate the implement, it is held by the operator in one hand or in both hands, properly connected at the binding-post H with the source of current, and the consequent rotation of the armature causes the cam on its shaft to rapidly oscillate the vibrator, which is applied to the patient to exert the massaging effect. The motor in the implement of which the present drawings are copies makes four thousand revolutions per minute, thereby producing eight thousand oscillations of the vibrator.

The divided bar-connected field is advantageous, inasmuch as it adds to the power of the motor; but it is not an essential feature of my invention, since the spool A' might be omitted, though at the expense of loss of current. Moreover, I believe it to be broadly

novel with me to provide a massaging implement in which an electric motor is employed having the vibrator connected immediately with the armature-shaft to be oscillated by its rotation. Hence I do not limit my invention to the particular construction nor to the details thereof herein shown and described.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a massaging implement, the combination of an electric motor, a cam on the motor-shaft and a vibrator engaging with said cam, substantially as described.

2. In a massaging implement, the combination of an electric motor, a cam on the motor-shaft at one end of the motor, and a vibrator having a slotted end embracing said cam, substantially as described.

3. A massaging implement comprising, in combination, an electric motor, a casing inclosing said motor and adapted to be carried with its contained mechanism in the hand of the operator, a cam on an end of the motor-shaft and a vibrator engaged by said cam, substantially as described.

4. In a massaging implement, the combination of an electric motor having a field-magnet, an armature journaled at its shaft in said magnet with the shaft projecting beyond the same, a cam on the projecting end of said shaft, and a vibrator engaged by said cam, substantially as described.

5. In a massaging implement, the combination of an electric motor having its field-magnet formed of two end spools with a metal

bar connection between them and the armature journaled at the opposite ends of its shaft in said spools, a cam on one end of said shaft and a vibrator engaged by said cam, substantially as described.

6. In a massaging implement, the combination of an electric motor having its field-magnet formed of two spools connected by metal bars and the armature journaled at opposite ends of its shaft in said spools, a cam on one end of said shaft and a vibrator pivoted to the adjacent end of the motor and having a slotted end embracing and engaged by said cam, substantially as described.

7. A massaging implement comprising, in combination, an electric motor having its field-magnet formed of two end spools connected by metal bars, the armature journaled at the opposite ends of its shaft in the cores of said spools, and the binding-post on one spool connected by a wire from one terminal with the opposite spool, which is in turn connected by a wire with the spool carrying said binding-post and with the other terminal of the latter, and a wire connection between each commutator-brush and a terminal on the binding-post, a cam on one end of said shaft, a vibrator engaged by said cam, and a casing inclosing the motor, the whole being adapted to be carried in the hand of the operator, substantially as described.

JULIUS B. WANTZ.

In presence of—

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