

948,195.

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III-I.

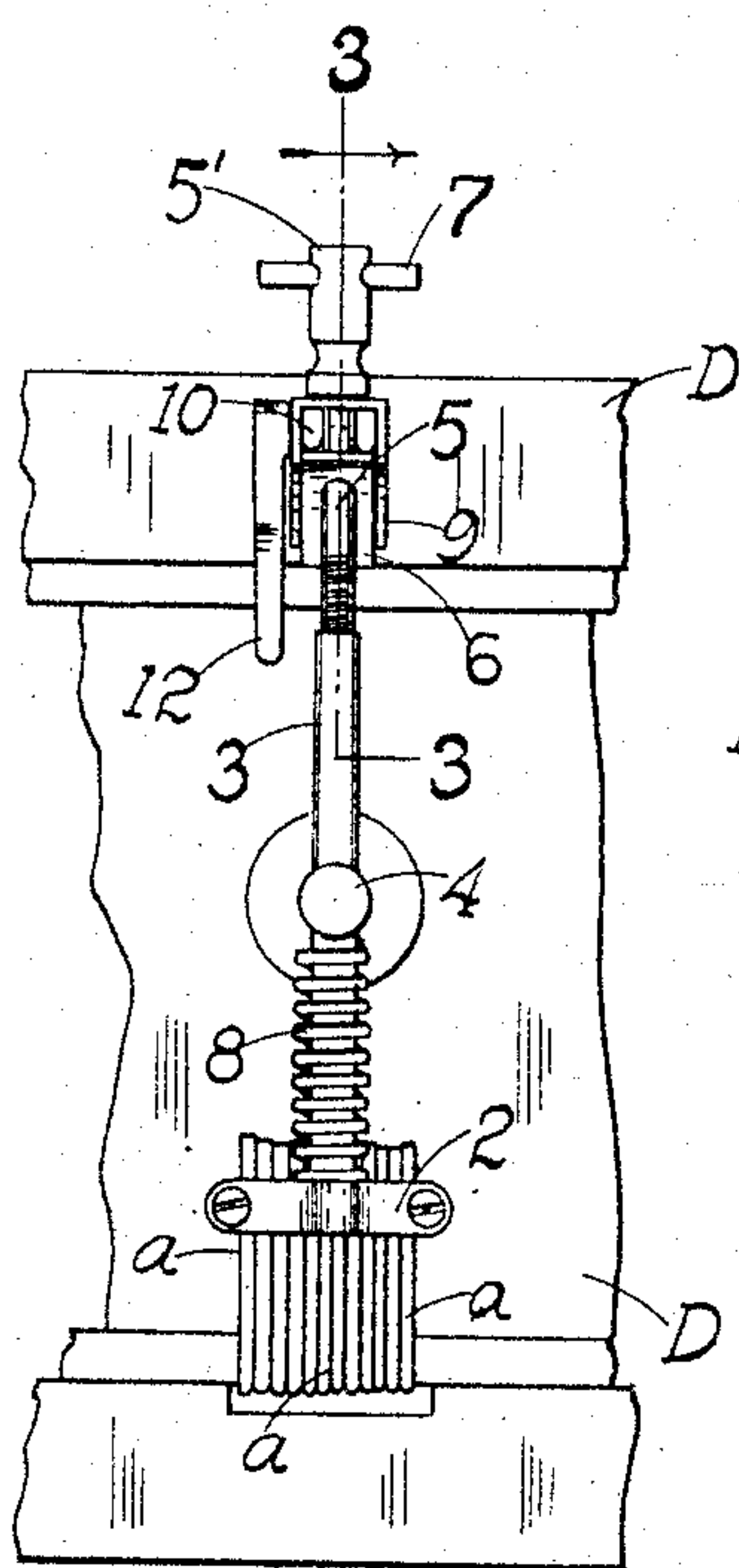
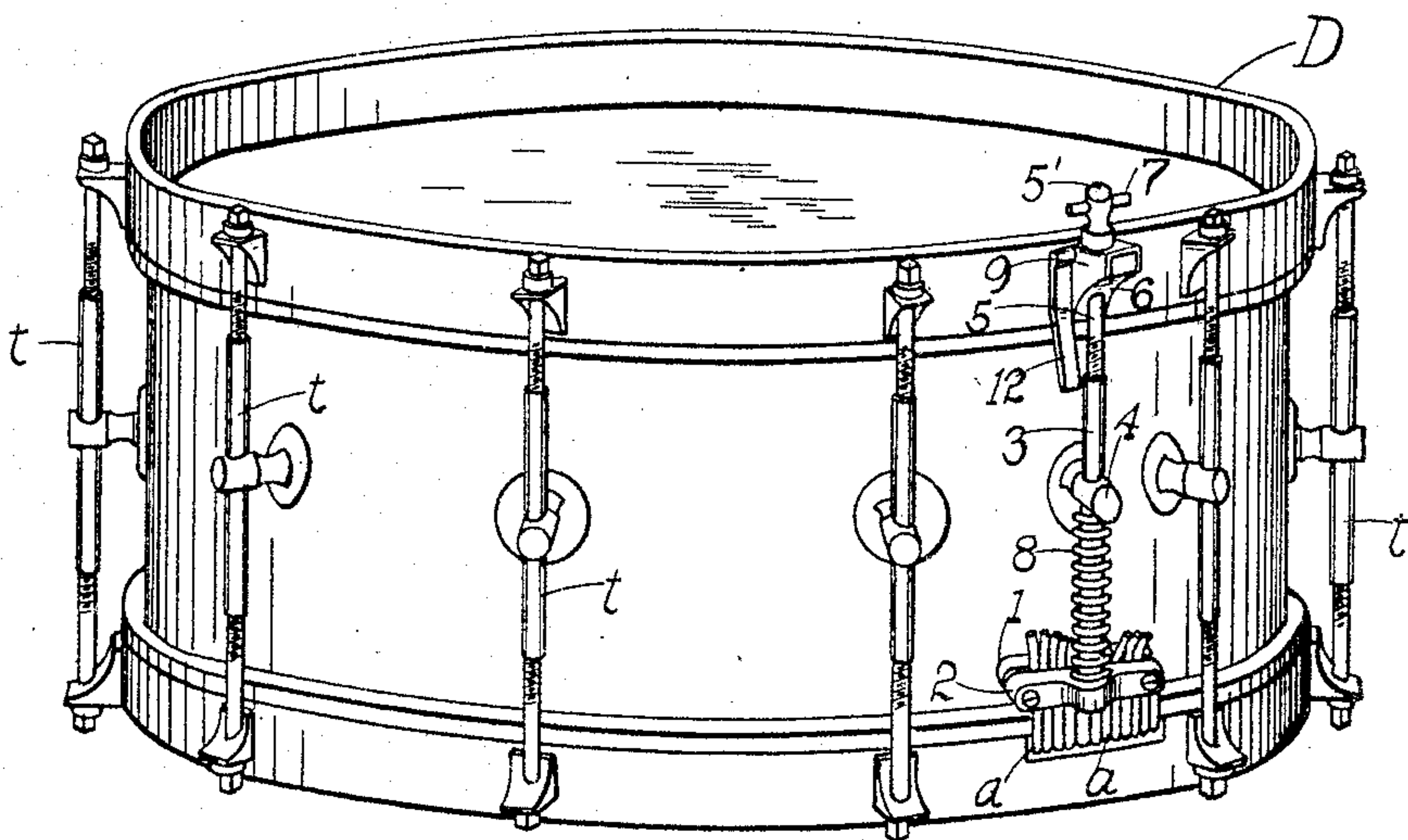


Fig. 2.

WITNESSES:

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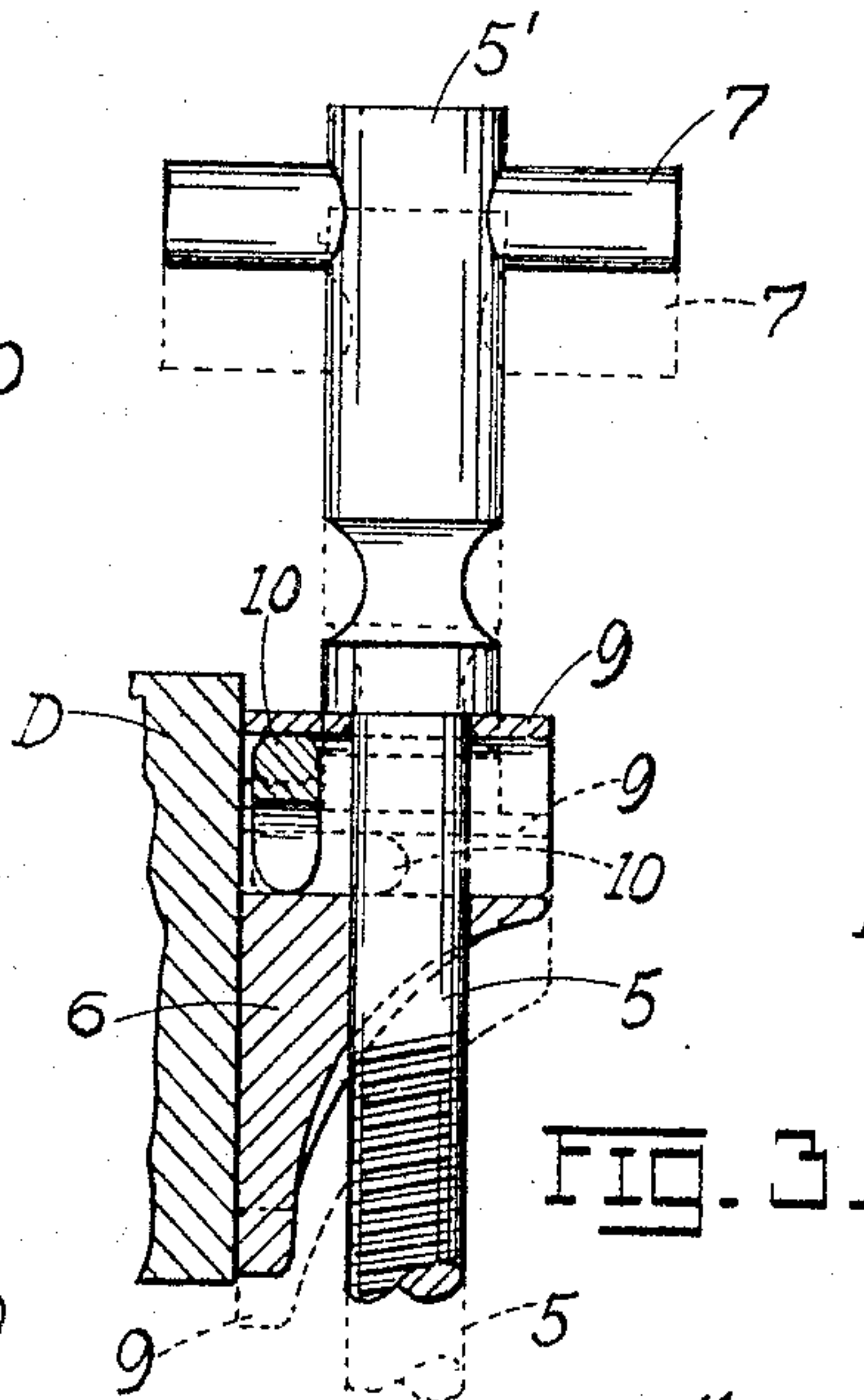


FIG. 3.

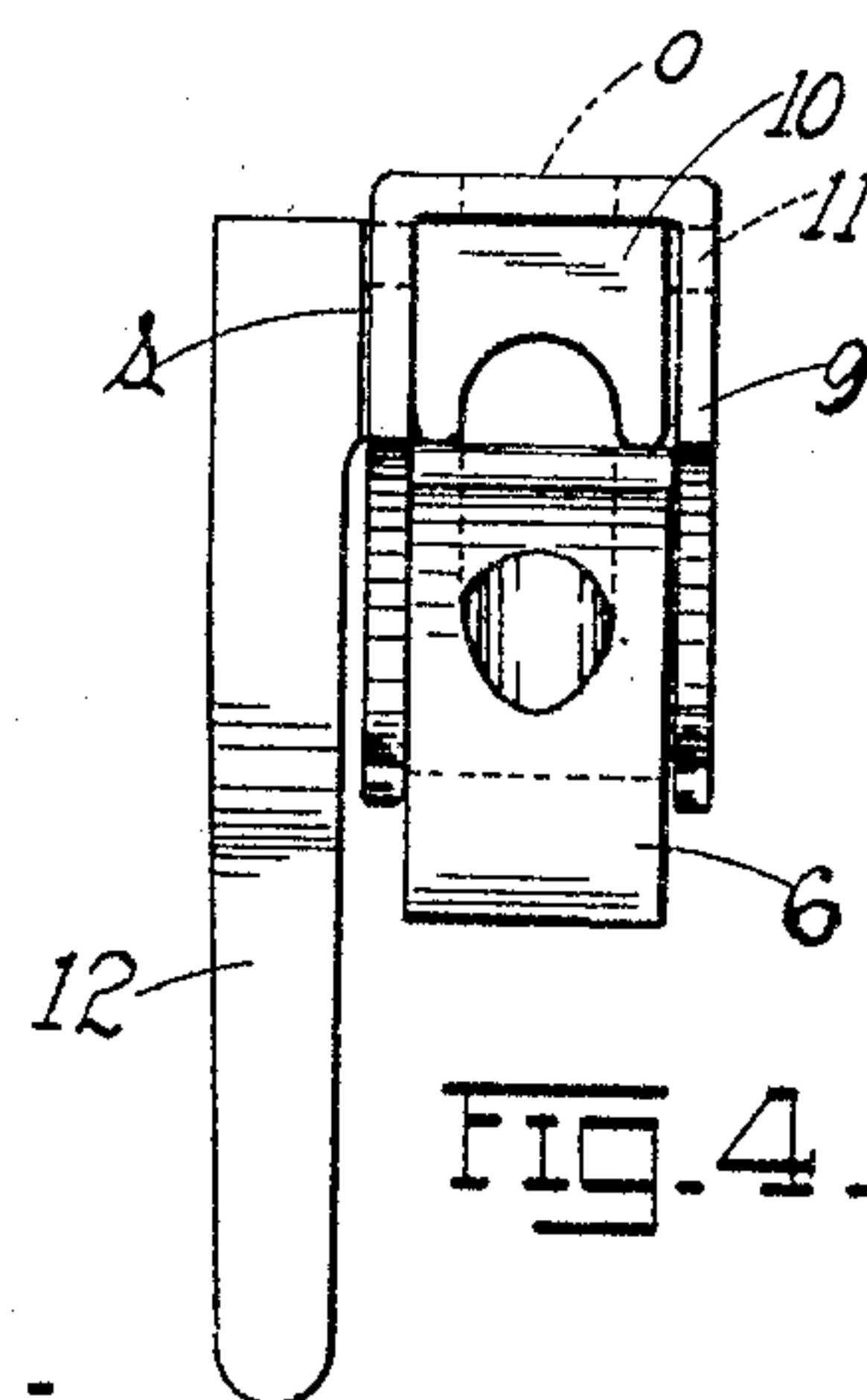


FIG. 4.

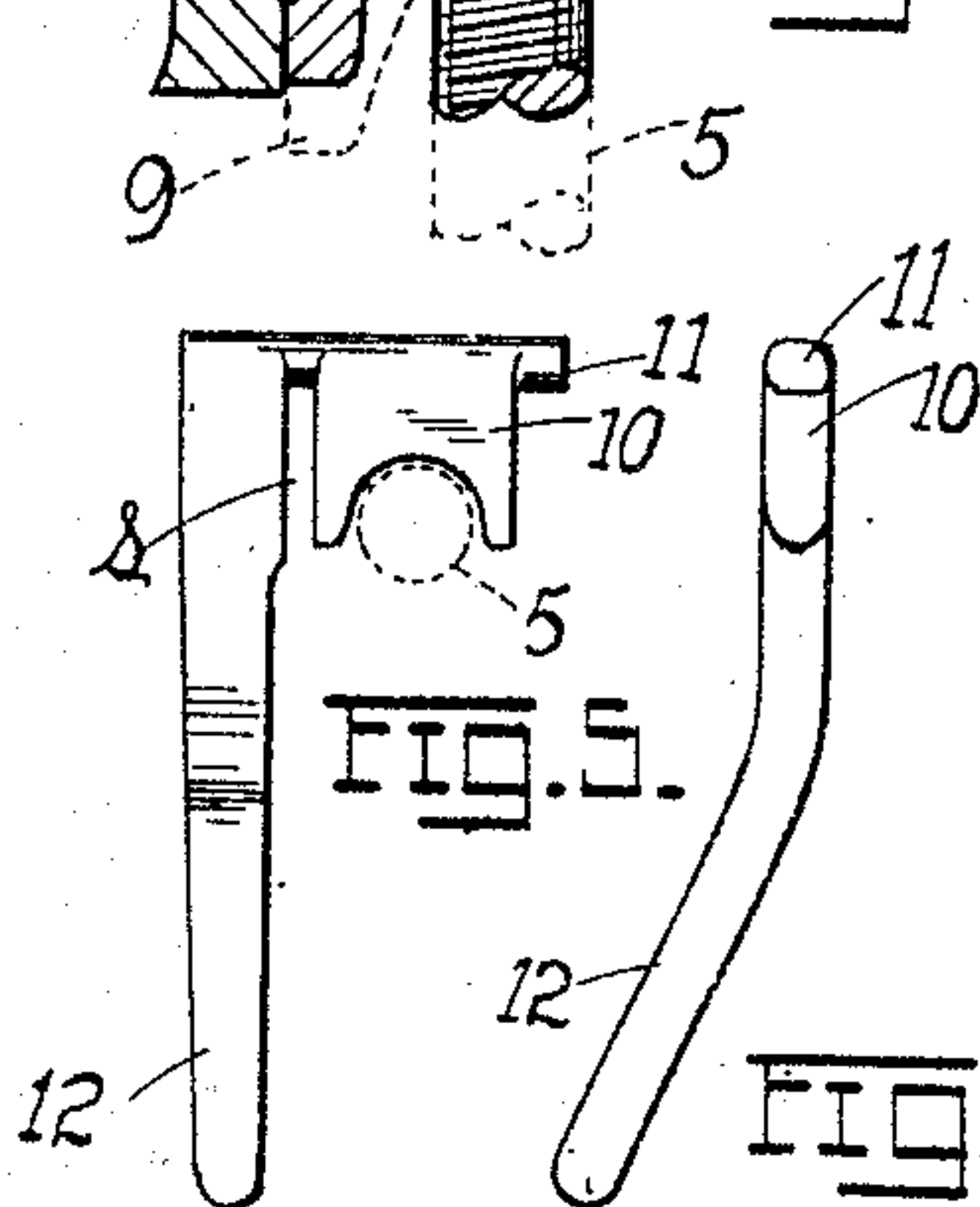


Fig. 5.

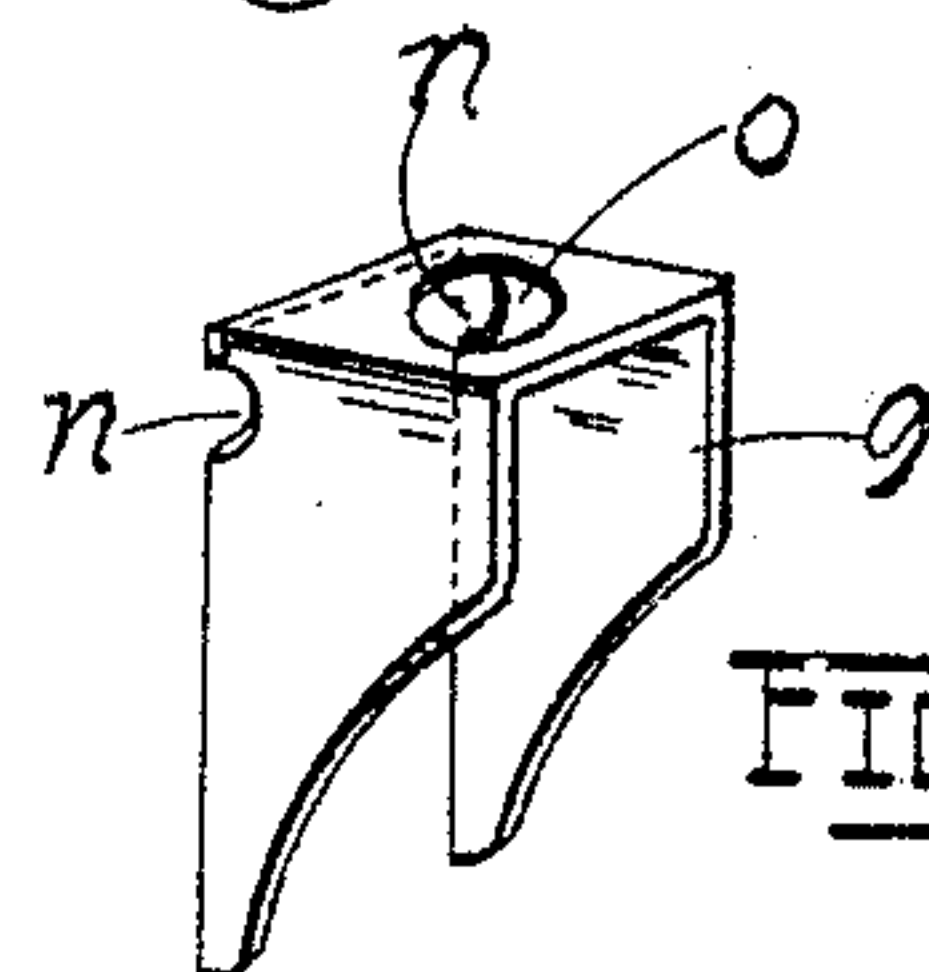


Fig. 7.

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# UNITED STATES PATENT OFFICE.

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## SNARE-DRUM MUFFLER.

948,195.

Specification of Letters Patent.

Patented Feb. 1, 1910.

Application filed July 15, 1909. Serial No. 507,748.

*To all whom it may concern:*

Be it known that I, MORITZ WAECHTLER, citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Snare-Drum Mufflers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in mufflers for snare-drums; and it consists in the novel construction of muffler more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a perspective of a snare-drum showing my invention applied thereto; Fig. 2 is an enlarged elevation of the take-up device showing my invention in position; Fig. 3 is an enlarged vertical longitudinal section on the line 3—3 of Fig. 2; Fig. 4 is an enlarged front view of my attachment, showing the lever arm of the trigger swung to position to raise the yoke off the bearing which guides the take-up, the latter being omitted; Fig. 5 is a face view of the trigger; Fig. 6 is an edge view thereof; and Fig. 7 is a perspective of the yoke, controlled by the trigger.

The object of my invention is to provide the ordinary snare-drum in which the snares or strings generally under tension and bearing against the bottom membrane of the drum may be instantly loosened or have their tension relaxed so as to muffle the sound of the drum. Such muffled sound is desirable on various occasions, especially in bands or orchestras playing Indian pieces, where the tension on the snares must be momentarily released to give the drum a tom-tom effect.

The invention herein presents advantages better apparent from a detailed description thereof which is as follows:—

Referring to the drawings, D represents the drum body, *a, a*, the snares or strings engaging the bottom membrane of the drum, and *t* the tighteners for the drum membranes, as usual and well understood in the art. The fixed ends of the snares *a* are secured in position in any well known manner, the opposite or adjustable ends being passed and gripped between the clamping plate 1 and the cross head 2 carried at one end of the adjustable tubular member 3 of the snare take-up device, said member 3 being guided

in a bearing 4 projecting from the peripheral wall of the drum body. The tubular member 3 is interiorly screw-threaded, and is engaged by the relatively stationary rotatable screw-stem 5 the unthreaded portion of which passes through a bearing or bracket 6 carried by the drum, any inward movement of the screw-stem being limited by the annular shoulder formed between the stem and its outer enlarged terminal head 5' which is provided with a cross-bar or handle 7. Interposed between the cross-head 2 and bearing 4 is an expanding spring 8.

The foregoing details are already well known in the art and I do not claim them in the present invention.

It will be seen that by unscrewing the stem 5, the member 3 will be drawn away from the stem by the expanding action of the spring, this outward movement of the member thereby relaxing the pull or tension on the snares, thus destroying the snaring effect of the drum and muffling the action of the latter. To unscrew the stem 5 however, for purposes of releasing the member 3 and muffling the drum is a very slow operation, since a number of turns must be given the stem before a sufficient slack can be imparted to the snares. To accomplish this release suddenly that the drum may serve as an accompaniment to music requiring muffled action, is the object of my invention. The latter consists of the following details:—Spanning the bracket or bearing 6 is a U-shaped strap or yoke 9 through an opening *o* of the top of which the stem 5 freely passes. Interposed between the top of the yoke and the bracket 6 is a bifurcated lobe, wing or cam 10 which forms a lateral projection of a rock-shaft or spindle 11 having its bearing in notches *n, n*, cut in the rear edges of the side wings of the yoke, one end of the spindle terminating in a suitably bent arm 12 by which the cam may be properly manipulated. The arm 12 is spaced sufficiently from the cam or lobe so as to leave a slit *s* for the free passage of the adjacent side wing of the yoke, during the oscillation of the arm and consequent rocking of the spindle 11. The object of forking the lobe 10 is to allow for the free passage of the stem 5 between the fork members, the latter straddling the stem when oscillated to a position for effecting re-



lease of the yoke and the head 5' resting on it.

The screw-stem 5 with its adjustable tubular member 3 and the snare clamping cross-head 2 may be collectively termed the take-up device, that is, the device for taking up any slack in the snares; and as a take-up it may be considered as adjustable or extensible being that it can be lengthened or shortened according as the stem 5 is unscrewed or screwed. In practice the lever arm 12 is swung against the drum (Figs. 1, 2, 3) this movement oscillating the lobe or cam 10 so as to cause its free edge to bear against the bracket or bearing 6, and bring the cam into a plane at right angles to the upper surface of the bracket. In this movement the cam necessarily picks up or raises the yoke 9 off the bracket, the raising of the yoke (which engages the shoulder at the base of the head 5') drawing the take-up after it, compressing the spring 8, and tightening the snares *a*. If the snares are not tightened sufficiently, their tension may be increased by giving the stem 5 a sufficient number of turns to further draw the member 3 toward it as obvious. The drum is now snared, and if the drummer desires to muffle it, he can do so instantly by simply oscillating the lever arm 12 outwardly, this action serving to swing the cam or lobe 10 into parallelism with the plane of the supporting surface of the bracket 6, whereupon the yoke 9 loses its support (cam 10) allowing the spring 8 to expand, in which expansion it pulls the take-up after it, thus releasing the tension on the snares, and the drum is instantly muffled (dotted position Fig. 3). It may again be as quickly snared by oscillating the arm 12 back against the drum so as to permit the cam to separate the yoke from the bearing 6 (Figs. 1, 2, 3, 4) thus again drawing the take-up in proper direction to compress the spring and tighten the snares *a*. The lobe 10 of course is not properly speaking a "cam", but it acts as a cam, because as the free edge thereof braces itself against the bearing 6 it straightens out as it were, and lifts the yoke off the bearing, the yoke in turn picking up the take-up (Fig. 3). A cam, however, would be a full equivalent of the lobe 10. The lever arm 12, lobe 10, and spindle 11 act as a controlling trigger for the take-up, the latter being released by a movement of the trigger in one direction, and raised by a movement of the trigger in the opposite direction.

Having described my invention, what I claim is:—

60 1. In combination with a drum-snare take-up, a bearing for arresting the movement of the take-up in one direction, an oscillating member interposed between the bearing and take-up for moving the latter in the

opposite direction, and means whereby the 65 oscillating member may be actuated.

2. In combination with a drum-snare spring-controlled take-up, a bearing for guiding said take-up, a head on the latter for limiting the movement of the take-up 70 in one direction, and an oscillating cam interposed between the bearing and head of the take-up for moving the latter in the opposite direction by an oscillation of the cam in one direction. 75

3. In combination with a drum-snare spring-controlled adjustable take-up, a bearing for guiding said take-up, a head on the latter for limiting the movement of the take-up in one direction, and an oscillating cam 80 interposed between the bearing and head of the take-up for moving the latter in the opposite direction by an oscillation of the cam in one direction.

4. In combination with a drum provided 85 with a bracket or bearing projecting from the wall thereof, a screw-stem passing there-through and terminating in an enlarged head, a yoke straddling the bearing and interposed between the head and bearing, 90 a rock-shaft supported in the side walls of the yoke and provided with a bifurcated lobe adapted to straddle the stem, an outer terminal lever arm for rocking the shaft and oscillating the lobe whereby by an oscil- 95 lation of the lobe in one direction the yoke is lifted from the bearing and the stem moved with the yoke, and a member movable along the stem and secured to the snares of the drum, the parts operating sub- 100 stantially as, and for the purpose set forth.

5. In a snare-drum muffler, a U-shaped yoke having notches formed in the edges of the arms thereof adjacent to the bases of the arms, a rock-shaft engaging said notches 105 and provided with a laterally projecting member operating between the yoke-arms, and a terminal lever arm at one end of the rock-shaft, in combination with a bearing and a reciprocating snare-take-up having a 110 stem passing through said bearing, straddled by said yoke, and terminating in a head resting on the yoke, substantially as set forth.

6. In combination with a snare take-up 115 disposed along the body of the drum between the heads thereof, a trigger positioned at the free end of the take-up adjacent to the drum-head, and suitable co-operating means between the trigger and 120 take-up for drawing the take-up and tightening the snares by a movement of the trigger in one direction, and releasing the take-up and relaxing the tension on the snares 125 by a movement of the trigger in the opposite direction.

7. In combination with a spring-controlled snare take-up disposed along the

body of the drum between the heads thereof,  
a trigger positioned at the free end of the  
take-up adjacent to the drum-head, and suit-  
able coöperating means between the trigger  
5 and take-up for drawing the take-up and  
tightening the snares by a movement of the  
trigger in one direction, and releasing the  
take-up and relaxing the tension on the

snares by a movement of the trigger in the  
opposite direction.

In testimony whereof I affix my signature,  
in presence of two witnesses.

MORITZ WAECHTLER.

Witnesses:

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