

No. 885,991.

PATENTED APR. 28, 1908.

T. GRACE.
SHEEP SHEARING MACHINE.

APPLICATION FILED SEPT. 30, 1907.

2 SHEETS—SHEET 1.

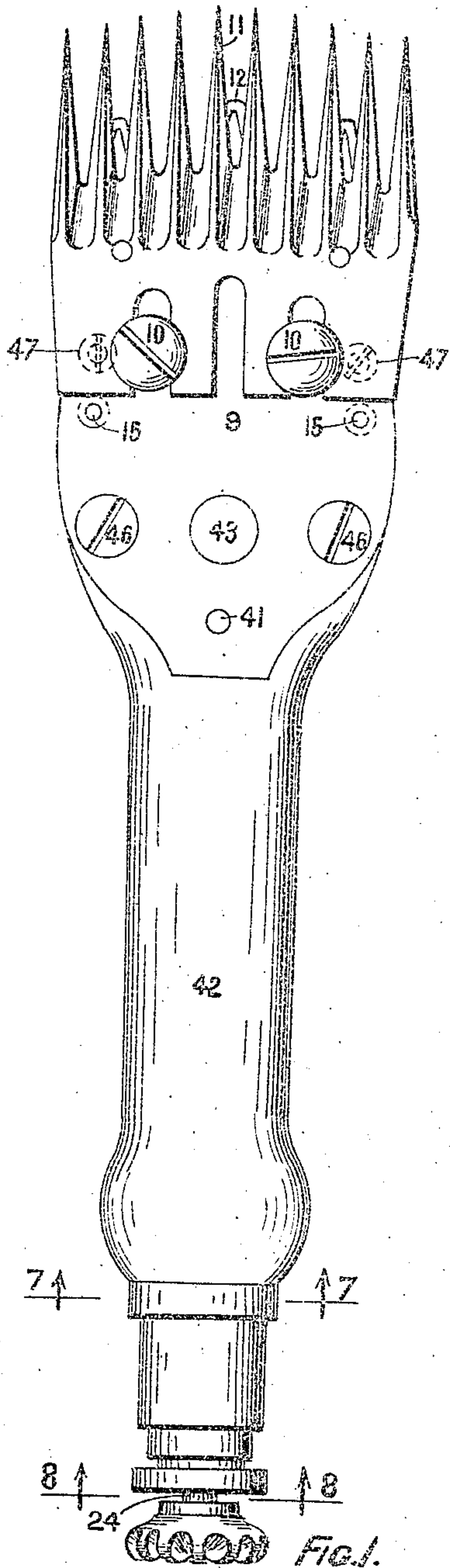


FIG. 1.

Witnesses

Percy Newell
M. Landrick

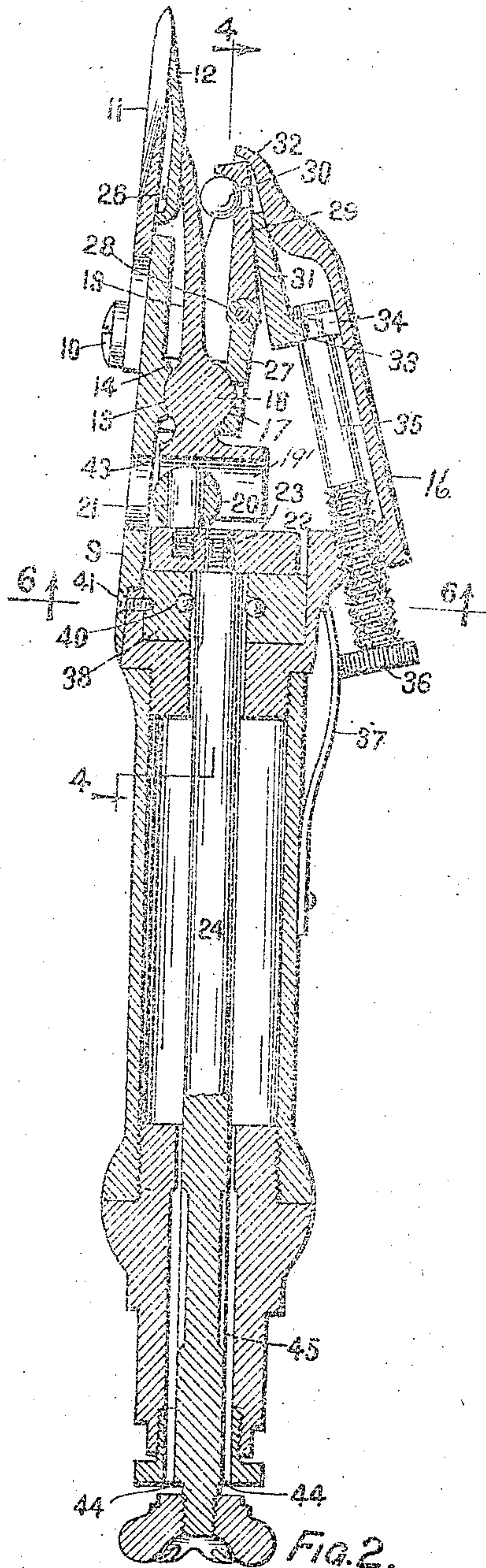


FIG. 2.

Inventor

Thomas Grace
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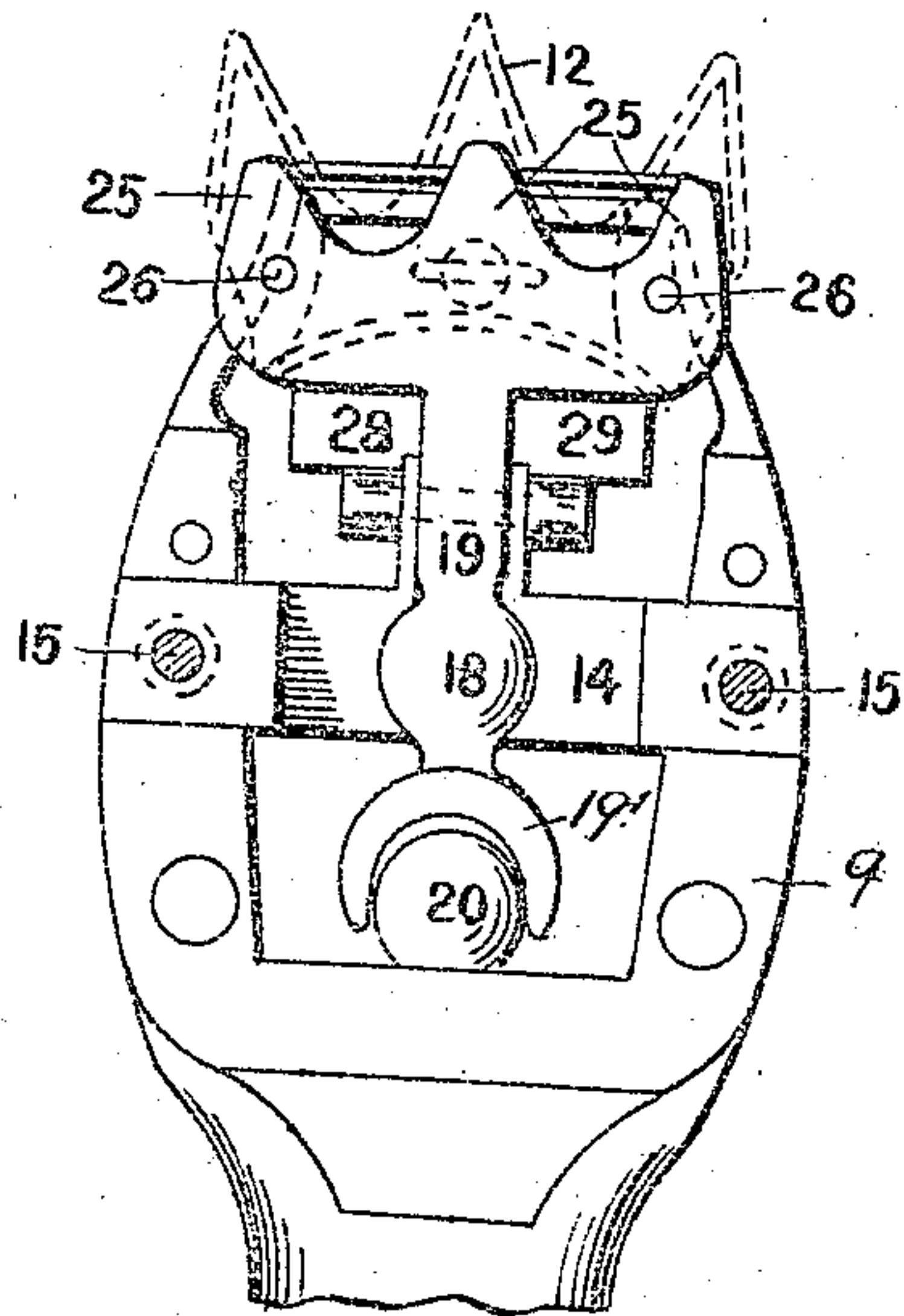


Fig. 3.

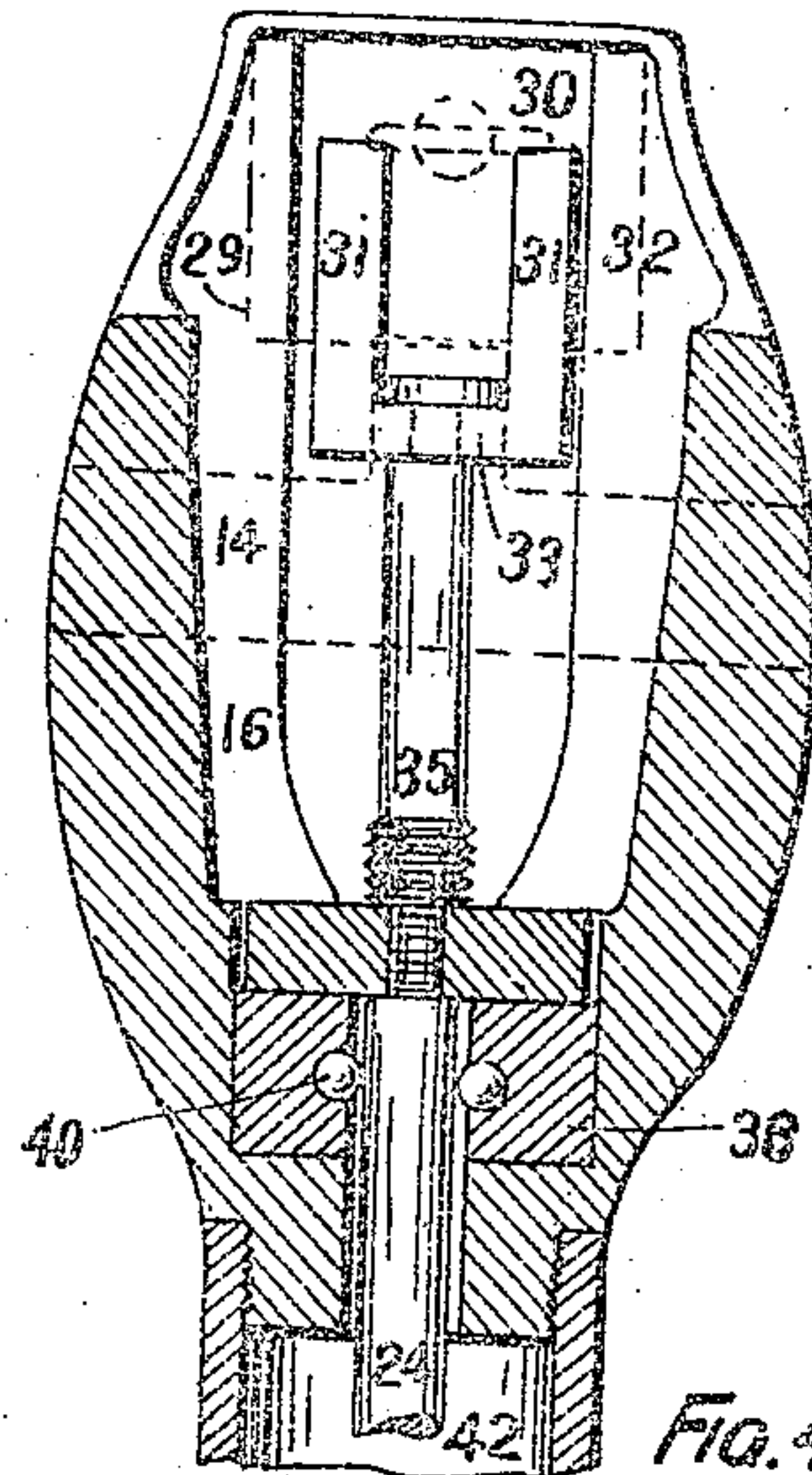


Fig. 4.

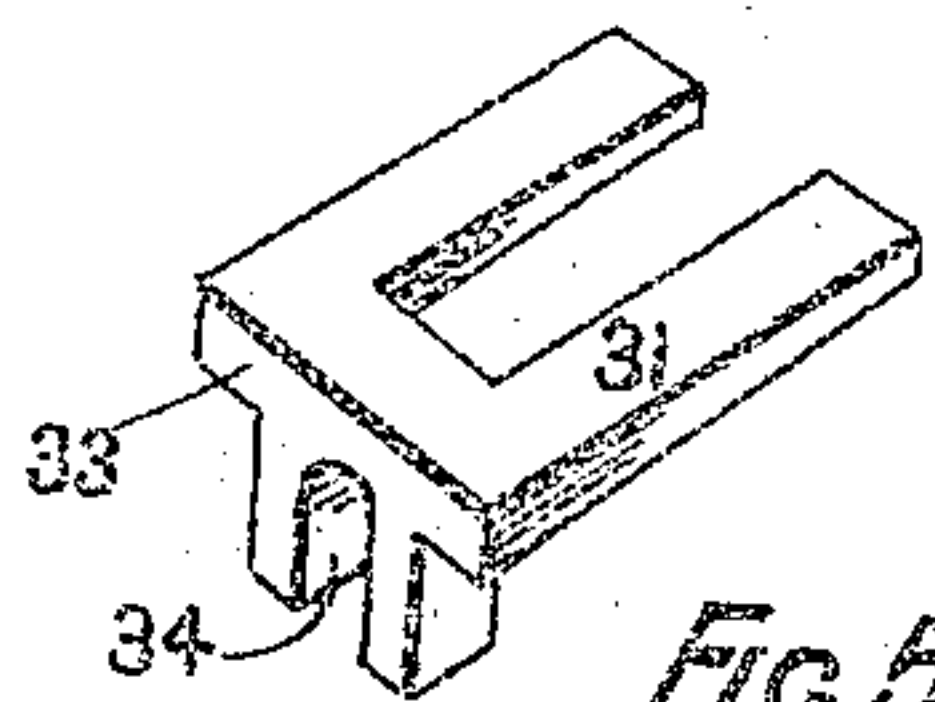


Fig. 5.

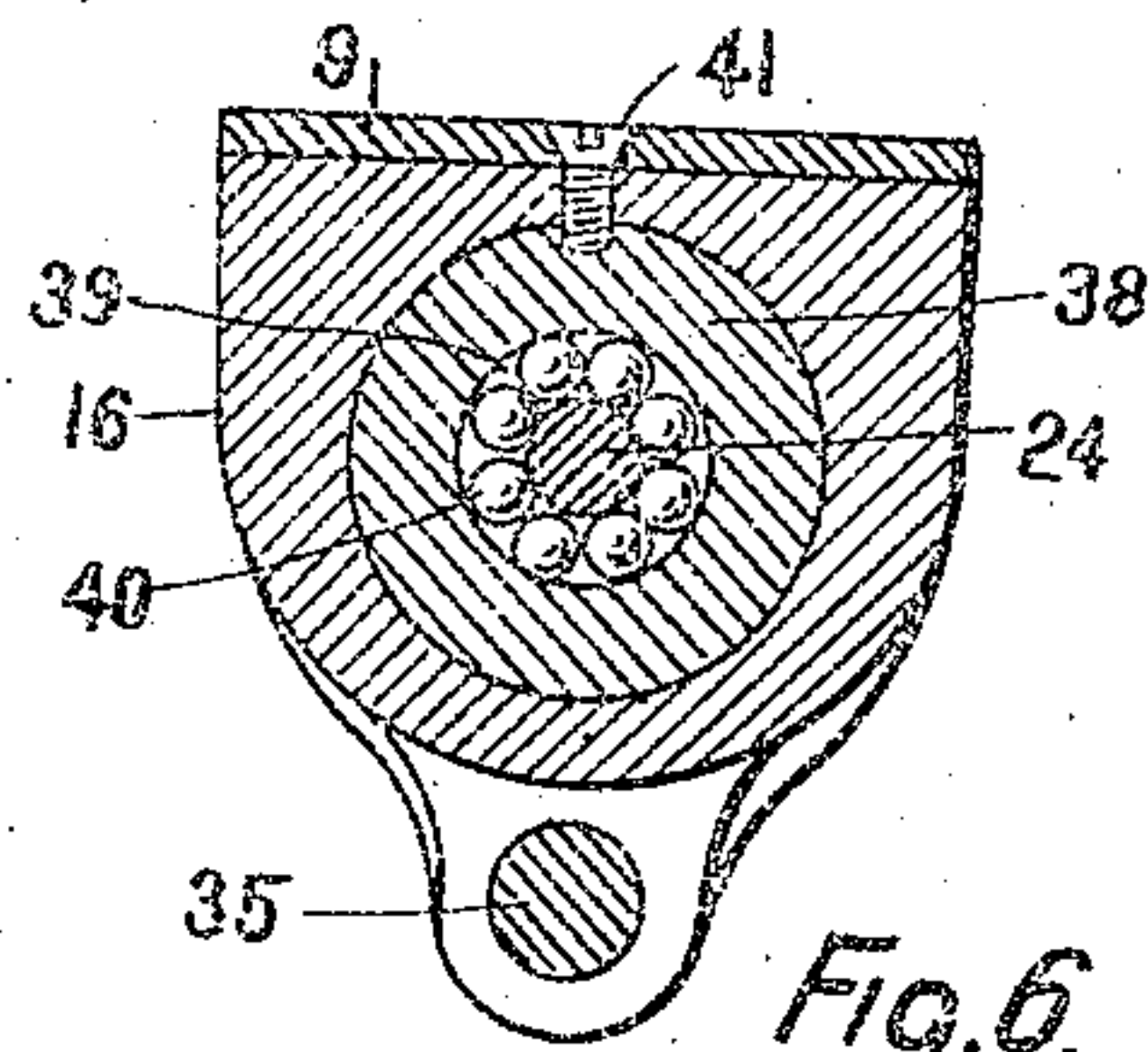


Fig. 6.

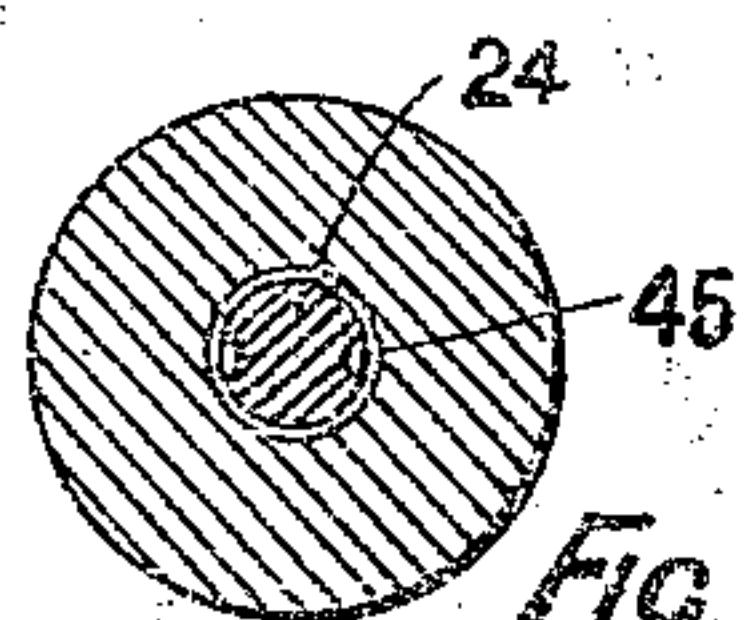


Fig. 7.

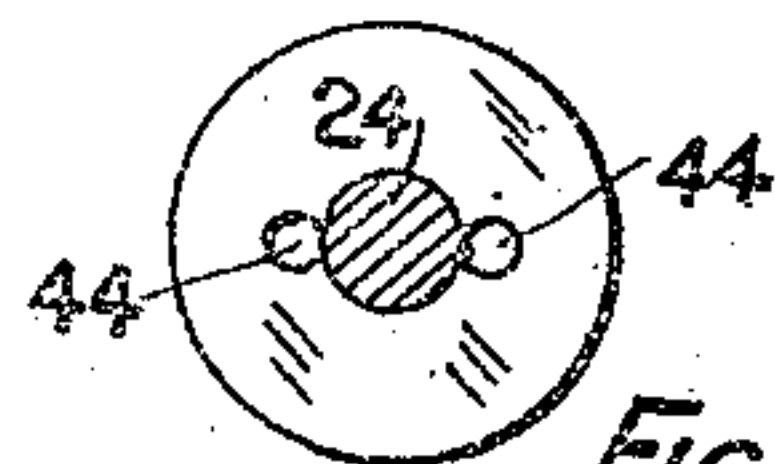


Fig. 8.

Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS GRACE, OF DARLINGTON, NEAR SYDNEY, NEW SOUTH WALES, AUSTRALIA,
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ALGERNON JAMES METCALFE, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

SHEEP-SHEARING MACHINE.

No. 885,991.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed September 30, 1907. Serial No. 395,137.

To all whom it may concern:

Be it known that I, THOMAS GRACE, a subject of the King of Great Britain, residing at No. 20 Ivy street, Darlington, near Sydney, in the State of New South Wales and Commonwealth of Australia, inventor, have invented new and useful Improvements in Sheep-Shearing Machines, of which the following is a specification.

This invention relates to certain improvements in sheep shearing machines.

Heretofore the tension of the cutter upon the comb of sheep shearing machines has been applied by means of a screw (with milled head) protruding through and above the head or front top casing of such machines and it has been found that such screw with its head is an obstruction to the progress of the machine through the fleece—and at the same time disturbs and tears the wool to its depreciation. And this invention has been specially devised in order that an even and easily regulated tension of the cutter upon the comb of such machines may be applied without the necessity of this obstructing and dangerous device. And it has been further devised in order to produce such a machine shears effective in operation while at the same time its various parts are each simple in construction and cheap in cost and further may be quickly and easily “interchanged” for others of the same pattern. But in order that this invention may be clearly understood reference will now be made to the drawing herewith in which

Figure 1 is a plan of a sheep shearing machine constructed according to these present improvements. Fig. 2 is a central sectional elevation of the same. Fig. 3 a partial plan with comb and plate removed. Fig. 4 a plan on the line 4—4 of the tension devices and Fig. 5 a perspective view of the tension-wedge while Figs. 6 7 and 8 are transverse sectional elevations on lines 6—6 7—7 and 8—8 respectively across the other figures.

Unlike other similar machines the casing of the driving mechanism of this sheep shearing machine has no cover opposite to its operating face but it has a removable plate or base 9 to which is secured by screws 10 the comb 11 which is of ordinary construction. The cutter 12 of ordinary construction reciprocates upon this comb and is “tensioned” to

its work and actuated in the manner hereinafter described.

The plate or base 9 carries the whole of the actuating mechanism and about centrally thereof is a concave seating or recess 13 over which springs an arch or bridge 14 secured by screws 15 to said base 9. The bridge 14 has also a central concave seating 17 so that a spherical bearing is formed for a spherical bulb 18 on the operating lever 19 enabling such lever to rock or have motion as required in every direction. This lever 19 has a fork 19' at its rear end which embraces the ball 20 on a stud 21 in the disk 22 screwed on to the end 23 on shaft 24 and at its forward end has three fingers 25 with pintles 26 taking into cutter 12. The bridge 14 has a forward projection 27 to which is knuckle-jointed at 28 the tension flap 29 on the operating face of which is ball 30 between it and the operating fork 19 carrying the cutter 12.

A wedge piece 31 takes between said flap 29 and the end 32 of the casing 16 and in the back end 33 of said wedge 31 is the recess 34 in which rides the screw 35 by means of which the pressure of the cutter 12 on the comb 11 or the “tension” of the machine is regulated. This screw 35 has a milled head 36 into one or other of the flutes of which the spring 37 engages to secure said screw from moving after regulation. The forward bearing of the shaft 24 is a thimble 38 having a race or way 39 for the antifriction balls 40 which thimble is held in place by the screw 41. The handle 42 may be of piping “sweated” into the end pieces or it may form part of the casting. The back end of the handle and the shaft as well as the universal coupling are of any ordinary well known construction.

In the plate or base 9 is an orifice 43 through which lubricant may be supplied to the working parts. At the back end lubricant is supplied through orifices or ways 44 and by flues 45 to both ends of the back bearing. The shaft 24 being revolved the machine is operated as ordinarily the lever 19 being reciprocated and operating the cutter 12. The lever 19 being free on its spherical bulb 18 the tension regulated by screw 35 is evenly distributed by means of wedge 31 flap 29 and ball 30 at all parts of the stroke over the cutter 12 on the comb 11 and insures a good clean cut. All the parts are handily

get-at-able by removing the comb 11 (after loosening screws 10) and then removing the base 9 by taking out screws 46 and 47 when the whole of the parts except the crank stud 21 and its ball 20 the disk 22 and the tension screw 35 may leave the casing 16 and handle 42.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is:—

1. A sheep shearing machine comprising a comb, a cutter thereon, an operating lever for the cutter, a hinged portion, a ball between said hinged portion and lever, a casing, a wedge between said casing and hinged portion, and means for adjusting the position of the wedge, substantially as described.

2. A sheep shearing machine, comprising a casing, a comb removably held therein, a cutter on said comb, an operating lever for the cutter, a hinged flap, a ball between said flap and lever, a wedge between the flap and

casing, and a screw passing through the casing and engaging the wedge to adjust the position of the same, substantially as described.

3. A sheep shearing machine, comprising a casing, a removable base plate therefor, a comb on said base plate, a cutter, an operating lever for said cutter, a spherical bulb on said operating lever, a bridge holding the spherical bulb on the base plate, a hinged flap secured to said bridge, a ball between said flap and lever, a wedge between said flap and casing, and a screw passing through said casing and engaging with the flap, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS GRACE.

Witnesses:

FRED WALSH,
JOHN HUGHES.