

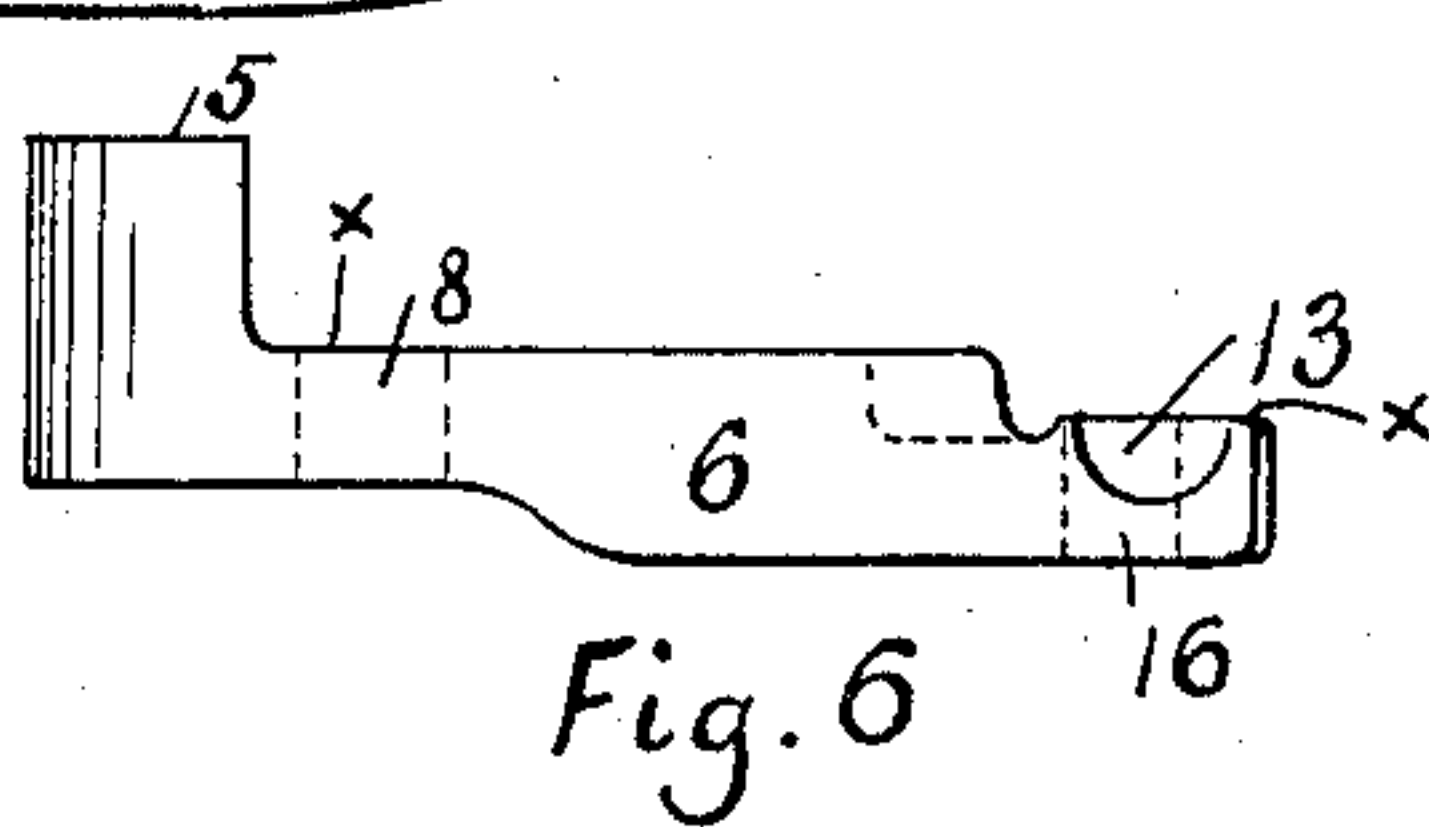
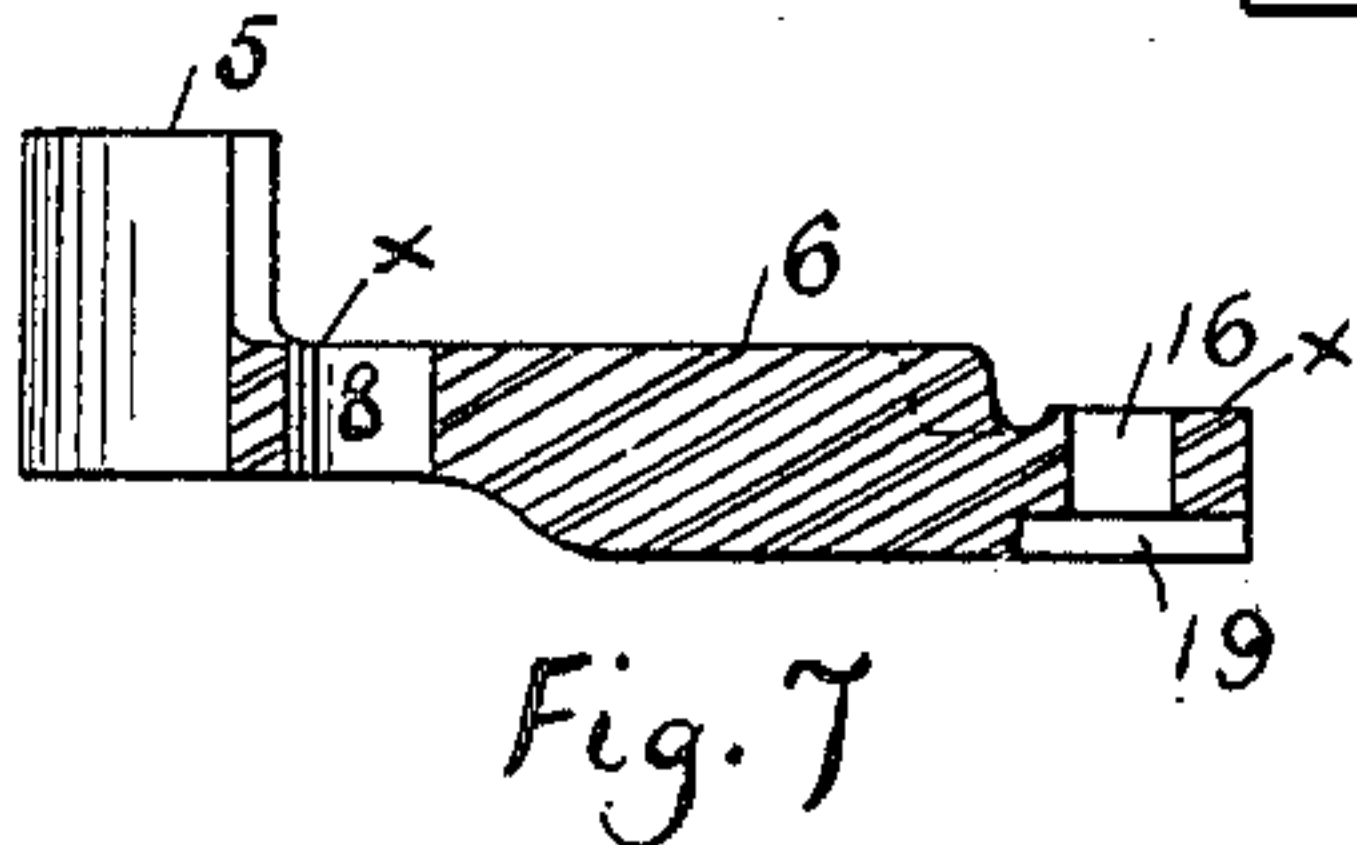
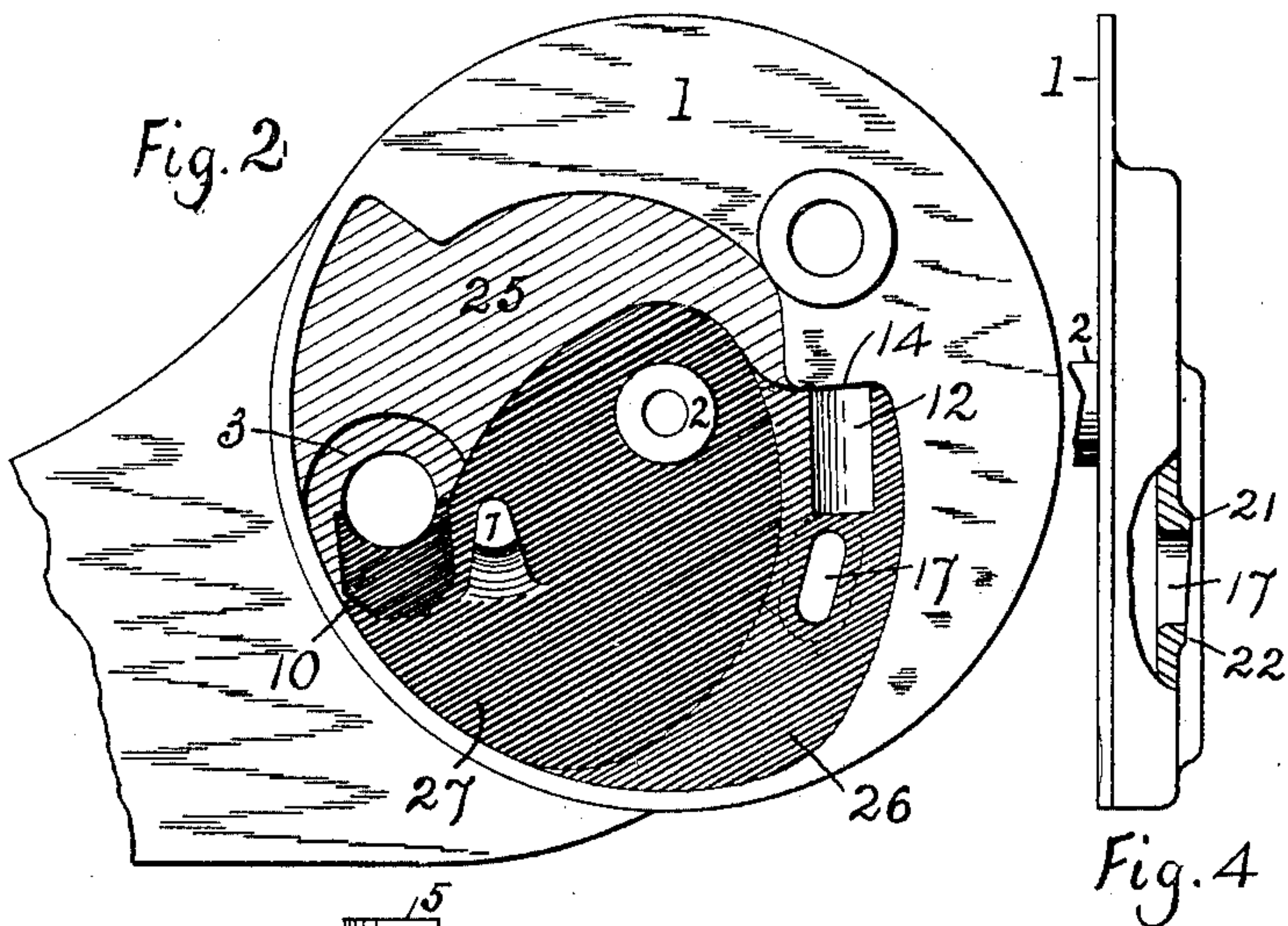
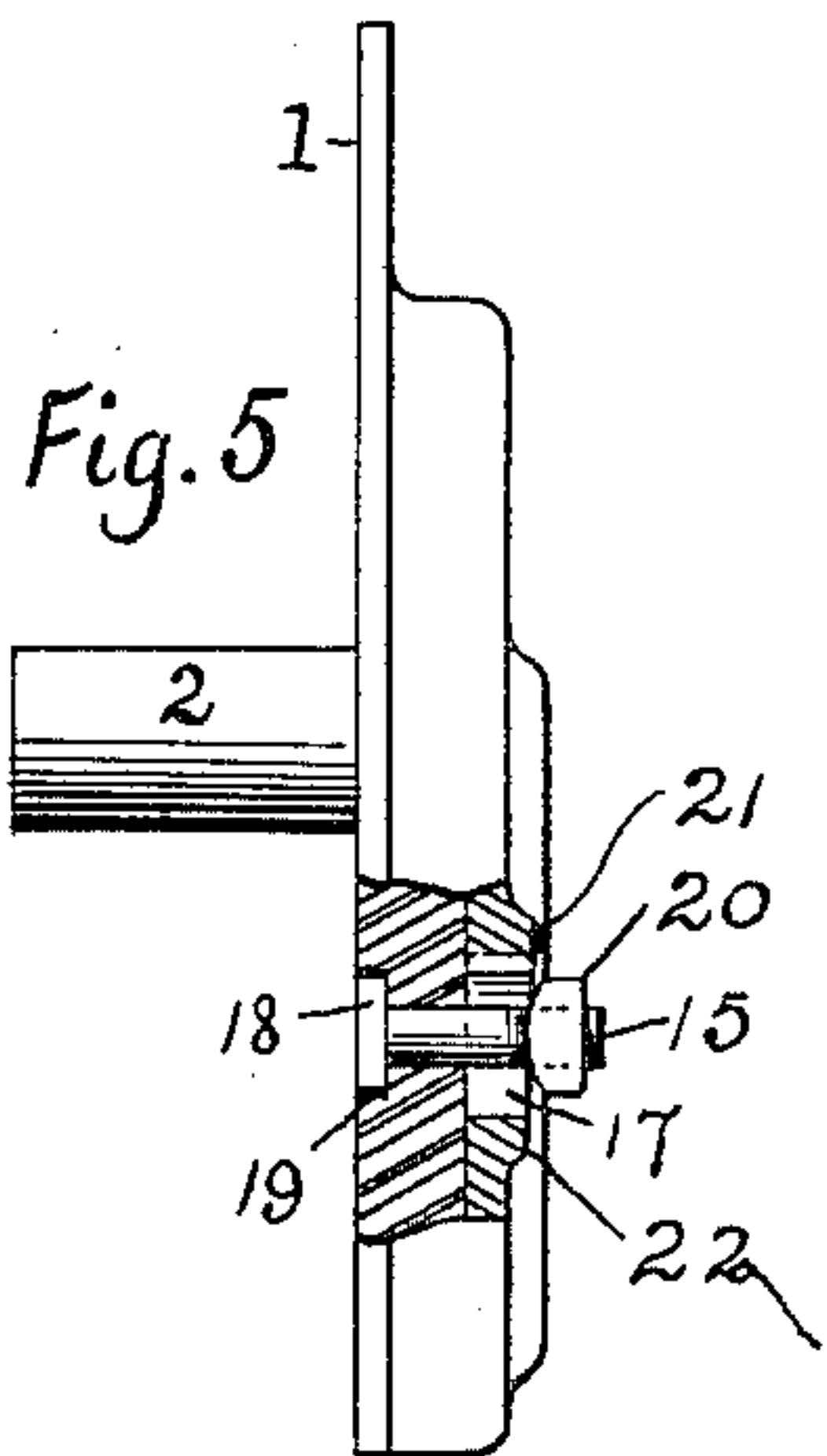
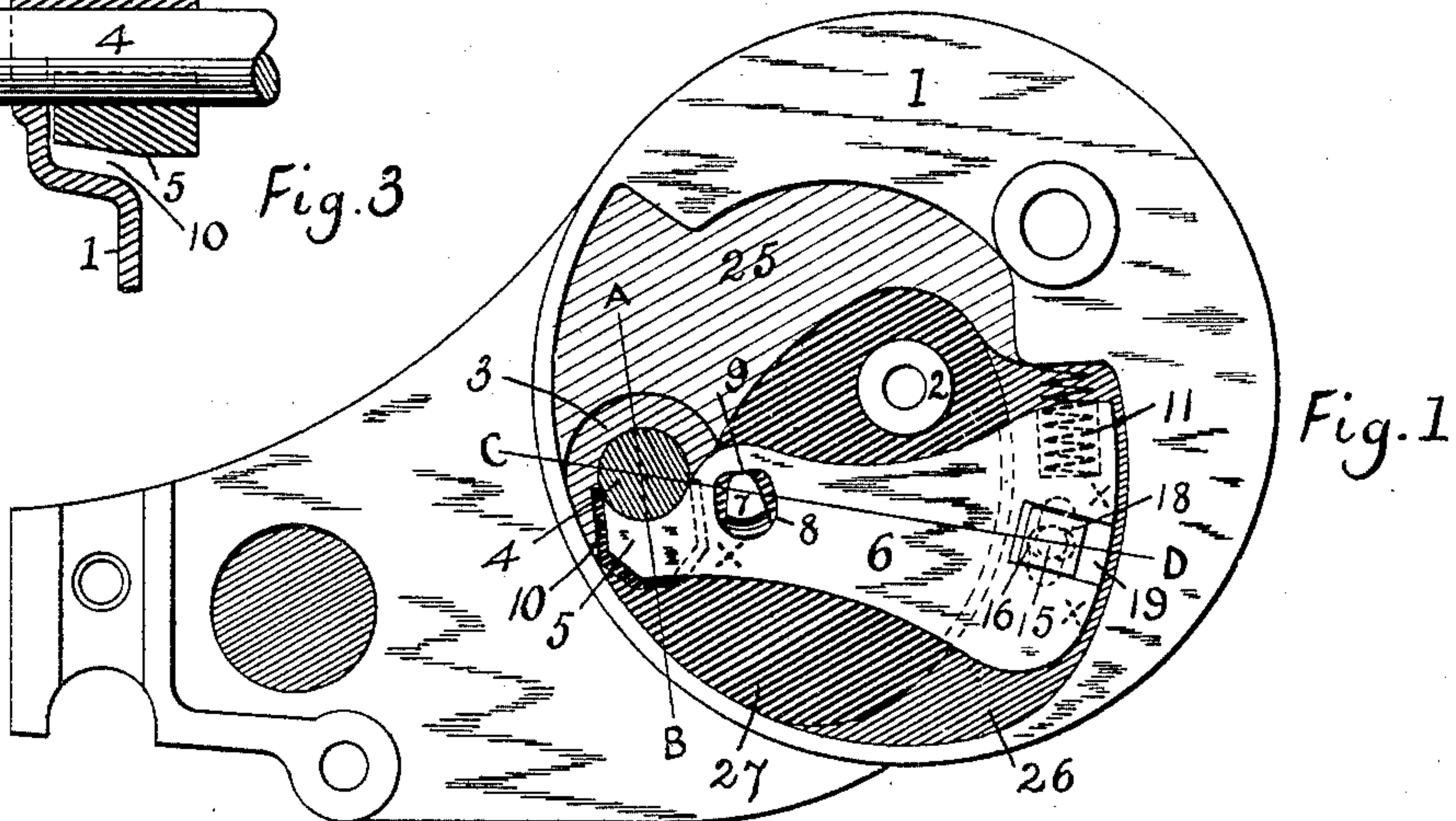
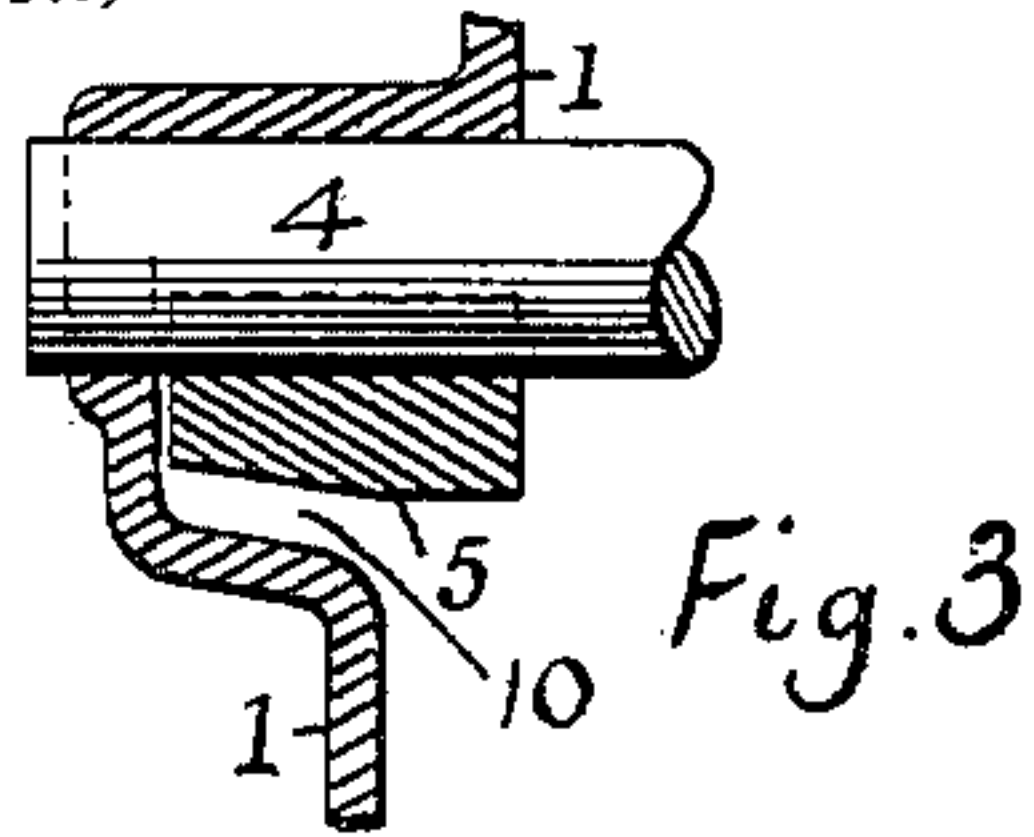
No. 657,715.

Patented Sept. 11, 1900.

**W. G. VERNON.**  
**LAWN MOWER JOURNAL BEARING.**

(Application filed July 13, 1900.)

(No Model.)



Witnesses  
Lily Clark.  
Lizzie Ruff

Inventor  
William G. Vernon  
By R. C. Wright  
Atty.



# UNITED STATES PATENT OFFICE.

WILLIAM G. VERNON, OF WALLINGFORD, PENNSYLVANIA.

## LAWN-MOWER JOURNAL-BEARING.

SPECIFICATION forming part of Letters Patent No. 657,715, dated September 11, 1900.

Application filed July 13, 1900. Serial No. 23,452. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM G. VERNON, a citizen of the United States, residing at Wallingford, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Lawn-Mower Journal-Bearings, of which the following is a specification.

My invention relates to improvements in journal-bearings, and especially for those of lawn-mowers, and has for its objects the providing of simple mechanism by means of which the journal is adjustably followed up by the cap, to take up both vertical and side wear, and in its movement to be self-centered under the journal, thereby insuring even wear, absence of lost motion, and in consequence eliminate rattling and chattering when running, and by my adjustment the annoyance of operating numerous set-screws by unskilful persons who are apt to derange the working parts is entirely done away with, the life and usefulness of the machine much prolonged, and much expense saved in first cost.

I attain the objects of my invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a lawn-mower side plate with my mechanism in place. Fig. 2 is the same elevation as Fig. 1 with the movable parts removed. Fig. 3 is a section on line A B, Fig. 1. Fig. 4 is an edge elevation of the side plate with a part of it in section. Fig. 5 is like Fig. 4, except that the cap-lever and its fastenings are shown in place. Fig. 6 is an edge or top view of the cap-lever. Fig. 7 is a section of the cap-lever on line C D, Fig. 1.

Similar figures of reference indicate similar parts throughout the views.

The side plate 1 has a hub 2 formed thereon on which is placed the lawn-mower driving-wheel, (not shown,) and a bearing 3 is formed on the plate to receive the journal 4 of the cutting-cylinder (not shown) and its gear at its upper side. The blades of the cutting-cylinder although spirally formed to present a continuous surface to the stationary knife are nevertheless somewhat intermittent in their action, and consequently if the journal 4 is not kept firmly up to its bear-

ing 3 there will be lost motion, with chattering and rattling of parts and ineffectual work. My mechanism overcomes the noisy objections and provides a positive means to keep the journal 4 in its bearing 3 and to follow up any wear that may be made in the bearing by the journal and with mechanism which is readily adjusted by any one and which overcomes the objections to the mechanism heretofore in use, where numerous set-screws must be adjusted and which adjustment was seldom understood by those using the machine or whose duty it was to keep the machine in proper working condition and order.

It is essential to keep journal 4 in close contact with its bearing 3, and for such purpose I have provided a cap 5, with means thereto attached to insure such constant contact. The cap 5 passes under the journal 4 and is formed on one side of a lever 6, resting upon a fulcrum 7, which is shown integrally formed on plate 1, although it may equally well be otherwise attached, if desired. Around fulcrum 7 there is an opening 8 through lever 6, and its upper or bearing side 9 is flattened to enable the cap 5 to have side adjustment to any wear of the journal 4 in its bearing 3, and the upper or bearing side of fulcrum 7 is rounded to permit perfect freedom in adjustment.

A pocket 10 is formed in plate 1 under journal 4, into which cap 5 is introduced. Lever 6 extends toward the opposite side of side plate 1 from bearing 3 and is broadened to produce the needed weight to keep cap 5 up to its position under journal 4. I also provide a spring 11 to assist the weight when being adjusted or to hold the lever 6 from chattering if its fastening becomes loose. The spring is placed in the half-pockets 12 in side plate 1 and 13 in lever 6 and one end abuts the end of pocket 13, which is shorter than pocket 12, and the other end abuts projection 14 on side plate 1.

I secure the lever 6 and its cap 5 in place on side plate 1 by bolt 15, the bolt passing through an opening 16 in lever 6 and with freedom enough for the necessary movement of surface 9 on fulcrum 7 and thereafter through a slot 17, formed through side plate 1, concentric with the bearing-point of fulcrum 7. The head 18 of bolt 15 is square



and is seated in a recess 19 to prevent its turning and has at the outside of said plate 1 a nut 20, rounded upon its bearing-face, which is seated upon an inclined surface 21 22, the end 21 being the highest in order to prevent any upward movement of the nut, its bolt, and lever 6 when the nut is screwed up. The lever 6 will bear on plate 1 at the points  $x x$  only to insure cap 5 being securely held longitudinally under journal 4. Plate 1 has a depression 25, a somewhat deeper depression 26, and a still deeper depression 27.

I claim—

1. In a lawn-mower, a side plate, a driving-wheel bearing, a cutting-cylinder bearing composed of a fixed upper part integral with the side plate, a journal, a cap for the journal and its bearing and which is fixed to a lever, a lever, a fulcrum, the lever having a weighted outer end, and means at the weighted end to secure the lever to the side plate and its attached bearing-cap under the cutting-cylinder journal.
2. In a bearing, a plate whereto the bearing is secured above the journal, a bearing consisting of a fixed upper part above the journal, a journal, a movable and adjustable lower part for the bearing, a lever to which the lower part of the bearing is attached, means to secure the lever adjustably on its fulcrum for movements which permit the lower part of the bearing to adjust itself truly to the journal's under and rounded surface, the lever

having an outer end formed to increase the weight at this end of the lever, and means to secure the weighted end of the lever for vertical movement.

3. In a divided journal-bearing, a side plate, an upper part for the bearing which is affixed to the side plate and wherein the journal is seated, a journal, a lower and movable part for the bearing, a lever whereon the lower part of the bearing is fixed, and having a weighted end, a spring seated in manner to press against the weighted end of the lever to force the movable part of the bearing to the journal, and means to secure the lever to the side plate and the movable part of the bearing longitudinally under the bearing and permit its vertical adjustment.

4. In a bearing, a side plate, a journal, an upper fixed part for the bearing, on the plate, a lower movable part attached to a lever, a lever having a weighted end, means there-through and through a slot in the side plate to secure the lever, an inclined seat surrounding the slot upon the outer side of the plate whereon the securing means is prevented from moving upward, if loosened, to prevent the movable part of the bearing from leaving its position under the journal.

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

WILLIAM G. VERNON.

Witnesses:

R. C. WRIGHT,

WILLIAM C. STOEVEER.