

No. 786,677.

PATENTED APR. 4, 1905.

C. E. RAGAN.
MECHANICAL MOVEMENT.
APPLICATION FILED AUG. 15, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

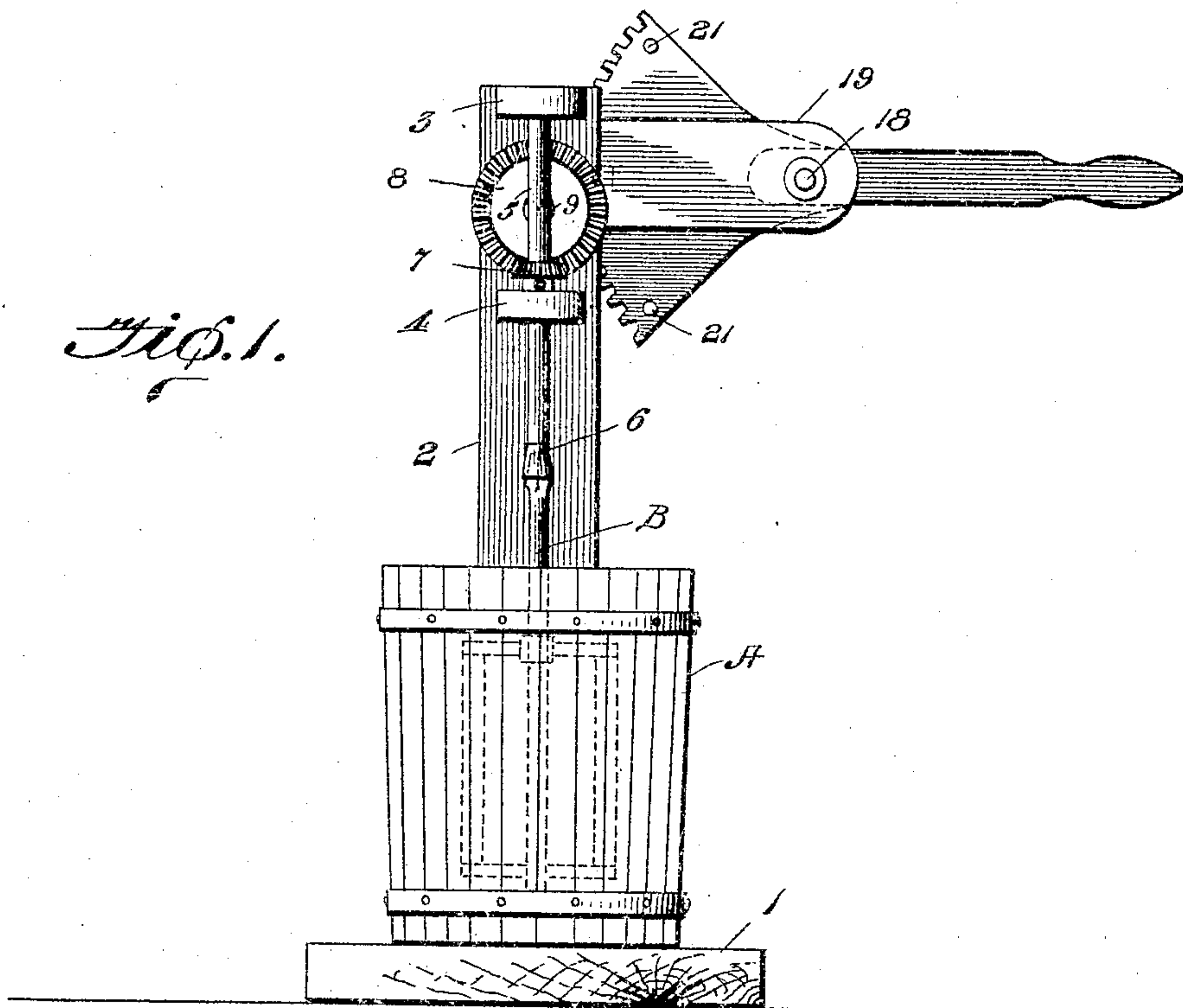


Fig. 3.

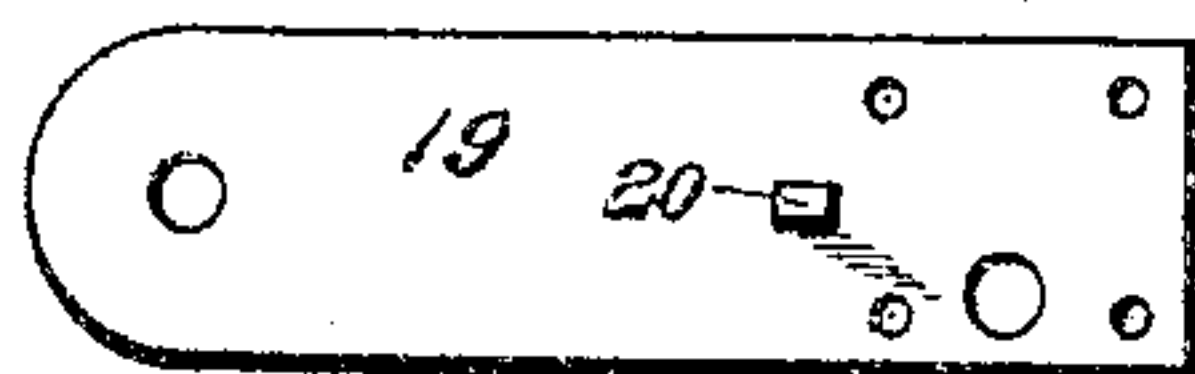
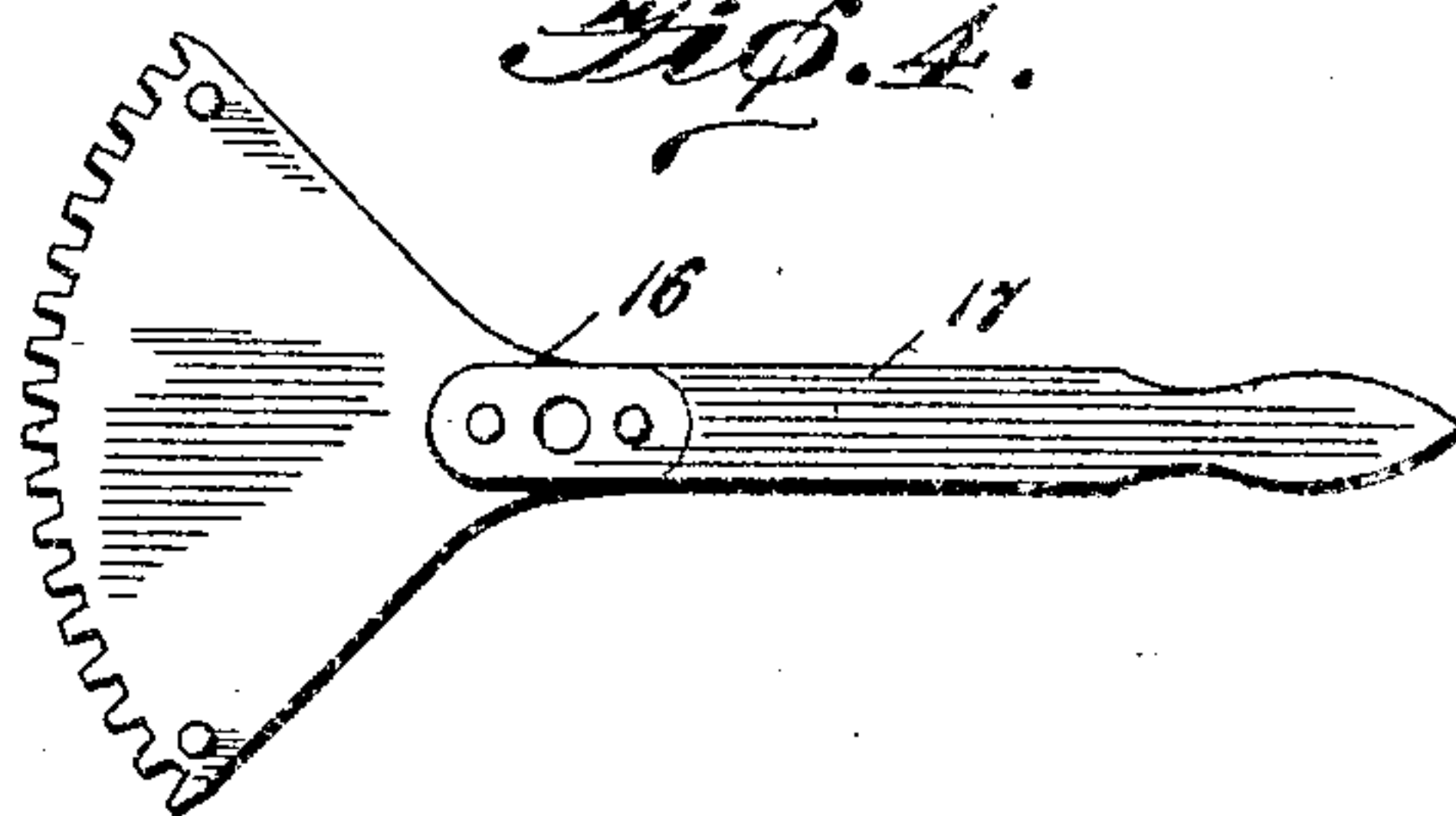


Fig. 4.



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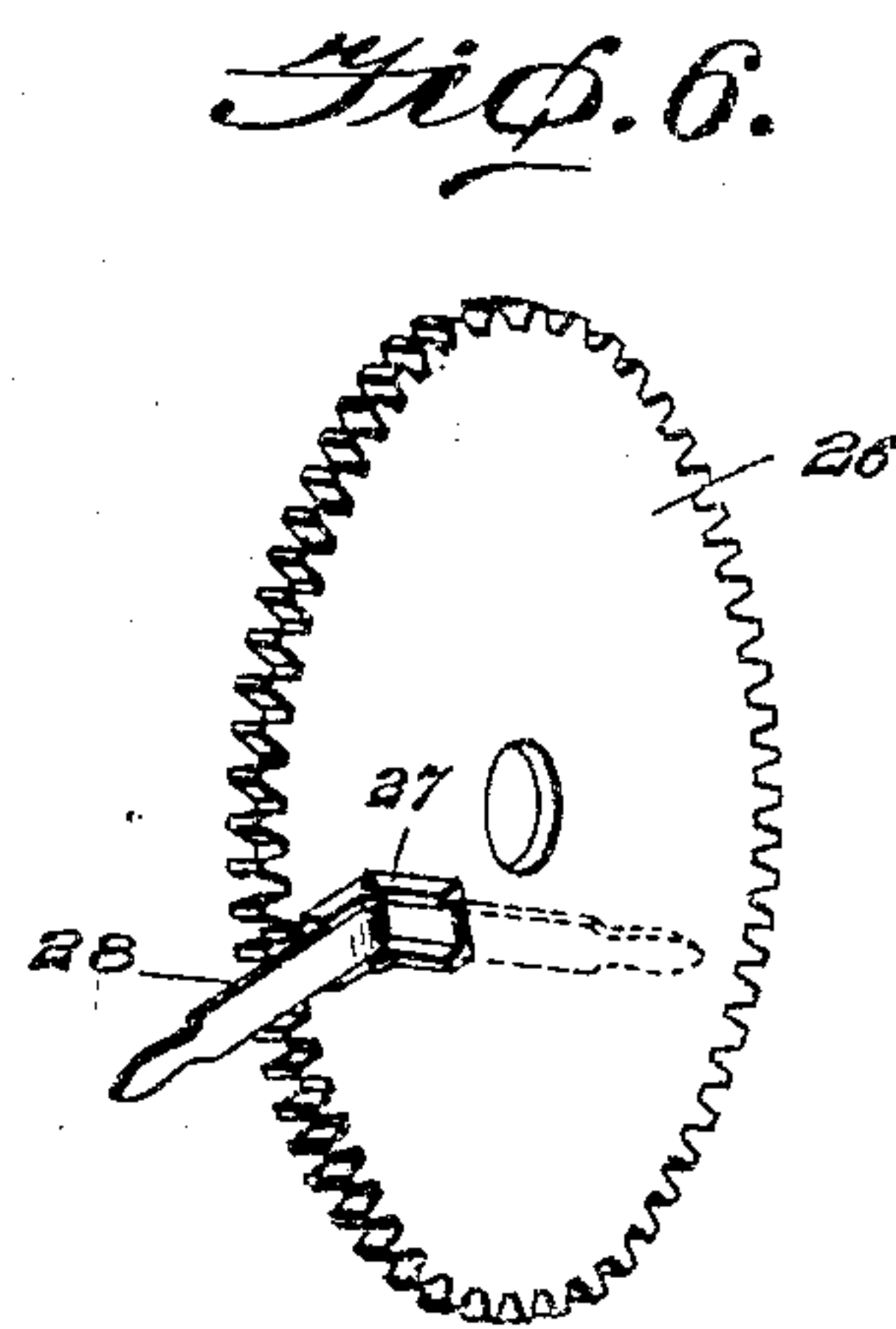
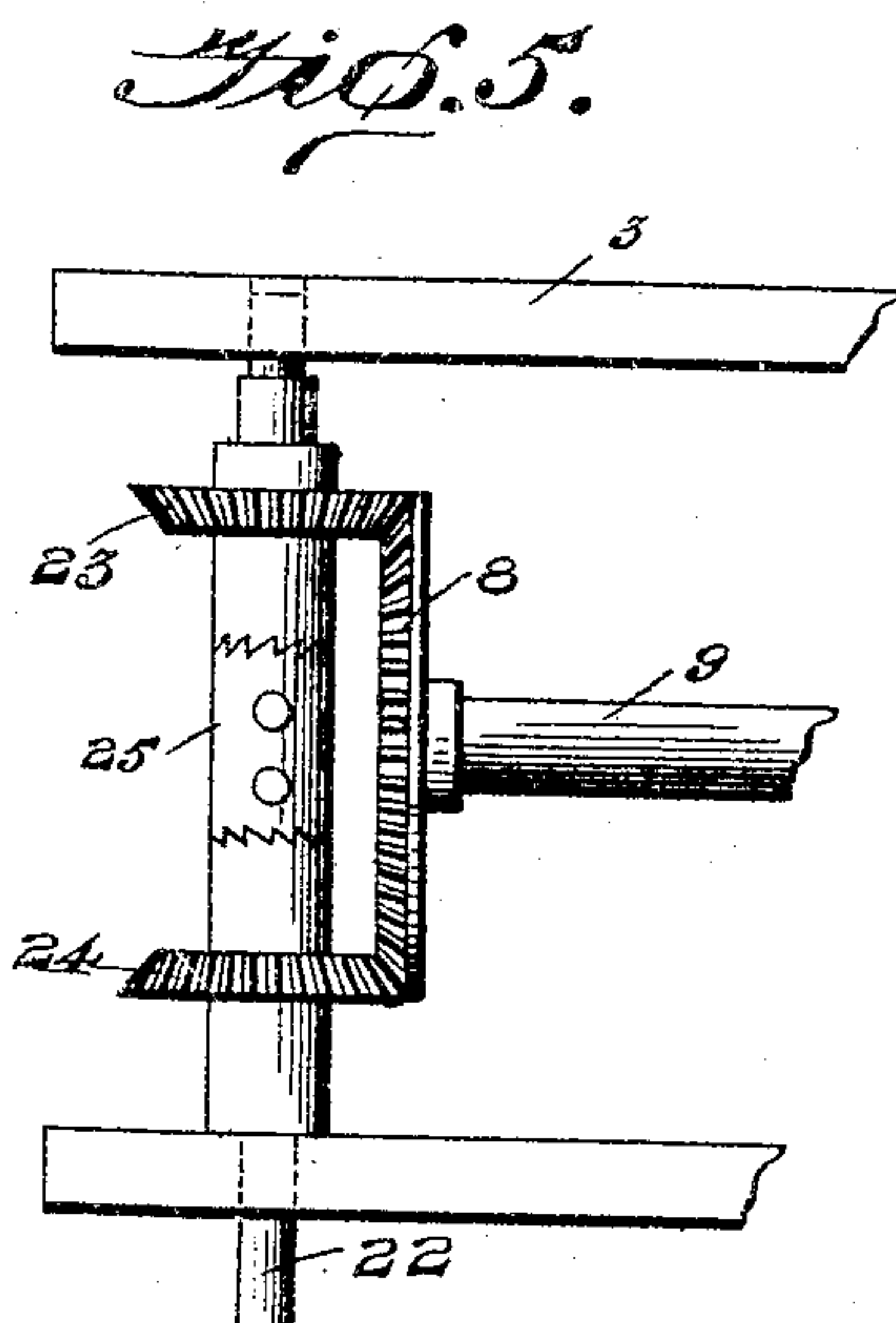
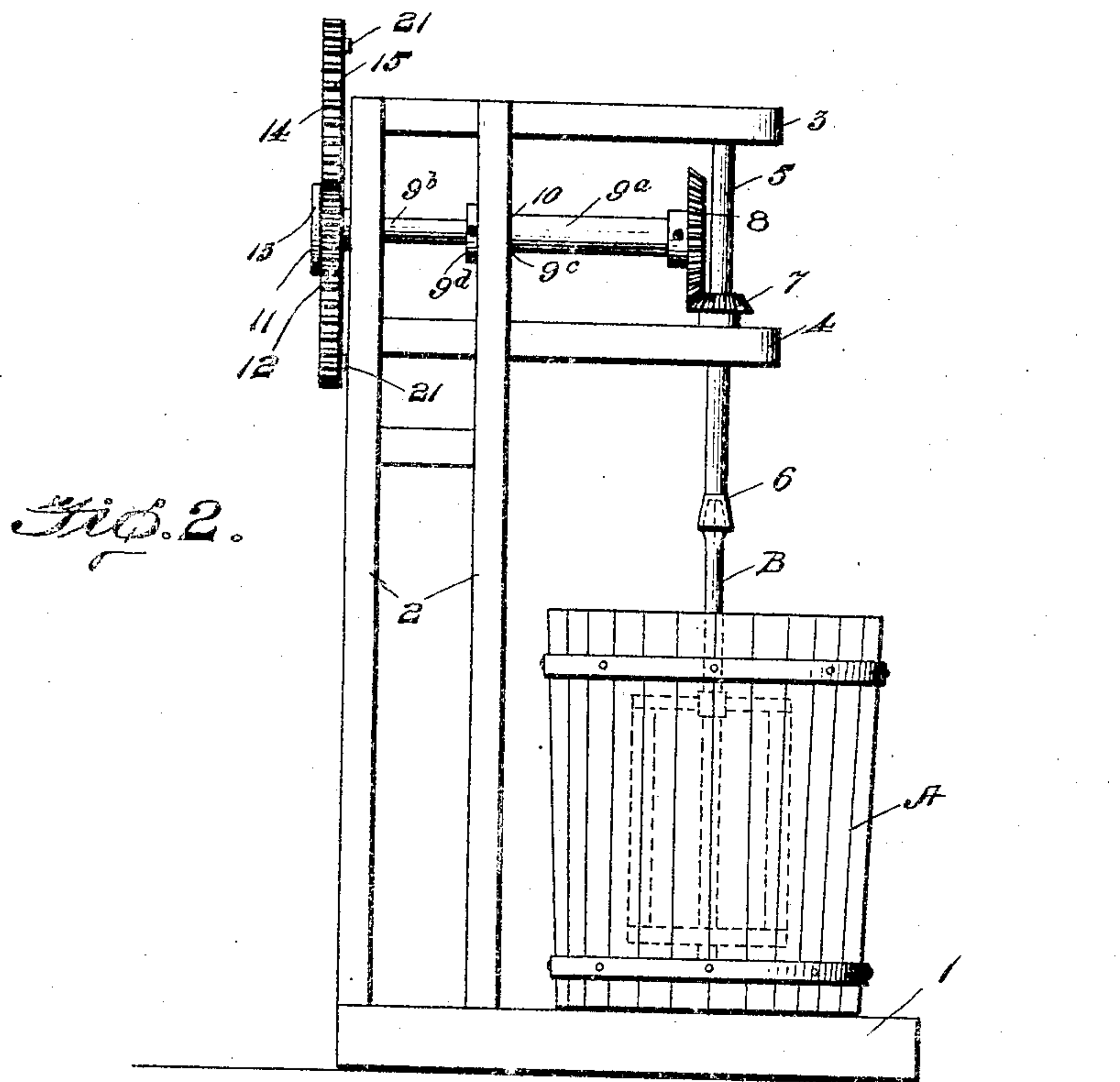
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

CHARLES E. RAGAN, OF GROTTO, TEXAS.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 786,677, dated April 4, 1905.

Application filed August 15, 1904. Serial No. 220,805.

To all whom it may concern:

Be it known that I, CHARLES E. RAGAN, a citizen of the United States, residing at Grotto, in the county of Hopkins and State of Texas, have invented certain new and useful Improvements in Mechanical Movements, of which the following is a specification.

My present invention relates to improvements in mechanical movements adapted to be used for operating churns, washing-machines, freezers, and the like.

The main object of my invention is the provision of a mechanism which is easily operated to impart to the dasher of a churn, freezer, or washing-machine either a continuous revolving motion or an oscillating motion.

To attain these objects, the invention consists of a device of this character embodying novel features of construction and combination of parts, substantially as disclosed herein.

In the accompanying drawings, Figure 1 is a front elevation of my complete mechanism with a churn-body in operative position therewith. Fig. 2 is a side elevation thereof. Figs. 3 and 4 are detail views of the segment and stops for limiting the movement of the segment. Fig. 5 is a sectional view of shafts and gears whereby a continuously-revolving motion is imparted to the dasher. Fig. 6 is a perspective view of a gear and lever used for operating shaft 9.

Referring to the drawings, A designates the churn body or receptacle, provided with a dasher B. The churn is mounted movably upon the base 1, having the standards 2 rising upward therefrom centrally and to one side. Supported by the upper ends thereof are the parallel arms 3 and 4, which provide a space in the upper end of the standards and a space between the ends of the arms. Revolvingly mounted in aligned openings in the outer ends of the arms is a vertical shaft 5, whose lower end 6 projects below the arm 4 and is connected to the dasher B. Keyed upon this shaft between the arms is a beveled pinion or gear 7, which meshes with and receives motion from the beveled gear or pinion 8, keyed upon the outer end of the horizontal shaft 9, journaled in the upper end of the standards between the arms and projecting beyond the

outer face of said standard or standards, as at 10. Keyed upon the end of the shaft is a pinion 11, provided with a periphery having teeth 12 and the smooth portion 13, the purpose of which is to protect the teeth by preventing anything from being caught and also to provide an additional guide for the segment 14, provided with the teeth 15. This segment is connected to the recessed end 16 of the lever or handle 17, which is fulcrumed, by means of a bolt 18, to the arm 19, which is supported by the standards at right angles to the arms 3 and 4. In order to limit the segment in its movement and to prevent it from disengaging the teeth of the pinion 11, I provide the stop or lug 20, secured to and projecting from the outer face of the arm 19, and the two stops or lugs 21, secured to and projecting from the inner side of the segment, said lugs being far enough apart to allow the proper manipulation of the handle or lever.

By this construction set forth an oscillating motion is imparted to the dasher, and in order to impart a continuous revolving motion to the dasher I employ the mechanism as shown in Fig. 5, which consists of the vertical shaft 22, mounted in the outer end of the arms and assuming the same relative position as the shaft 5. Upon this shaft I mount two beveled pinions 23 and 24, which are constantly in engagement with the pinion 8 above and below and are in engagement with the vertical shaft 22 through the medium of the ratchet-and-teeth connection 25, said ratchet-and-teeth connection being so mounted that one gear revolves the shaft, while the other revolves upon the shaft, and vice versa, thus imparting a continuous revolving motion to the shaft 22 as the handle or lever is reciprocated.

In place of segment 14 I also use gear 26, double cleat 27, and handle 28, by means of which a rotary movement or an oscillating movement can be imparted to the shaft 9.

In order to properly journal the shaft 9, I provide the same with the enlarged portion 9^a and the reduced portion 9^b, the shoulder 9^c preventing the inward movement of the same, while the washer or ring 9^d prevents the outward movement thereof.

From the foregoing description, taken in

connection with the drawings, it is evident that I provide a mechanism which is especially adapted for use upon churns, washing-machines, and the like and which will impart the proper motion to the dasher thereof in an easy manner, thus providing a thoroughly useful and practical mechanism.

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

10 1. In a mechanical movement, the combination of a base, standards rising therefrom, a pair of arms at right angles to said standards, a vertical shaft mounted in said arms for transmitting motion, a horizontal shaft
15 mounted within the standards adapted to transmit motion to the vertical shaft, an arm connected to the standards at right angles to the first-mentioned arms, a lever pivotally connected to said arm, and a segment carried
20 by said lever and operably connected to the outer end of said horizontal shaft for transmitting motion thereto.

2. In a mechanical movement, the combination of a base, standards rising therefrom, arms at right angles to the standards, a vertical shaft mounted in the outer end of said arms for transmitting motion, a pinion carried by said shaft, a horizontal shaft journaled
30 in the upper end of said standards, a pinion carried by the said horizontal shaft meshing with the pinion of the vertical shaft, another pinion carried by the other end of said horizontal shaft having a toothed and a smooth surface, and mechanism operably connected
35 with said last-mentioned pinion for operating the horizontal shaft.

3. In a mechanical movement, the combination of a base, standards rising therefrom, arms at right angles to the standards, a vertical shaft mounted in the outer end of said arms for transmitting motion, a pinion carried by said shaft, a horizontal shaft journaled
40 in the upper end of said standards, a pinion carried by said horizontal shaft meshing with the pinion of the vertical shaft, another pinion carried by the horizontal shaft provided with a toothed and a smooth surface, an arm connected to the upper end of the standards at right angles to the first-mentioned arms, a
45 handle pivotally connected to said arm, and a toothed segment carried by the said arm adapted to mesh with the teeth of said last-mentioned pinion for operating the horizontal shaft.

55 4. In a mechanical movement, the combination of a base, standards rising therefrom, arms at right angles to the standards, a ver-

tical shaft mounted in the outer end of said arms for transmitting motion, a pinion carried by said shaft, a horizontal shaft journaled
60 in the upper end of said standards, a pinion carried by said horizontal shaft meshing with the pinion of the vertical shaft, another pinion carried by the horizontal shaft provided with a toothed and a smooth surface, an arm
65 connected to the other end of said standard at right angles to the first-mentioned arms, a lug carried upon the outer face of said arm, a handle pivotally connected to said arm, a toothed segment carried by the inner end of said handle adapted to mesh with the teeth of said last-mentioned pinion and a pair of stops or lugs
70 carried upon the inner face of said segment adapted to engage the lug of said arm, for the purpose set forth.

5. In a mechanical movement, the combination of a base, standards rising therefrom, a pair of arms mounted in the upper end of said standards, a vertical shaft journaled in the outer end of said arms, a pair of beveled gears
80 carried by said vertical shaft, a ratchet mechanism connecting each one of the gears to said shaft, said ratchet mechanism being oppositely arranged, a horizontal shaft, a beveled gear carried by the horizontal shaft continuously revolving with said first-mentioned gears
85 of the vertical shaft, and mechanism for oscillating said horizontal shaft, for the purpose set forth.

6. In a mechanical movement, the combination of a base, standards rising therefrom, a pair of arms mounted in the upper end of said standards, a vertical shaft journaled in the outer end of said arms, beveled gears mounted upon said shaft, a ratchet mechanism connecting each gear to the vertical shaft so that a rotary motion is imparted to the vertical shaft,
95 a horizontal shaft, a beveled gear carried by the horizontal shaft continuously meshing with both of the first-mentioned gears of the vertical shaft, a pinion carried upon the opposite end of the horizontal shaft, and a toothed segment engaging said last-mentioned pinion adapted to be oscillated to oscillate the horizontal shaft so that the vertical shaft is re-
100 volved in one direction through the medium of the ratchet mechanism.

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

CHARLES E. RAGAN.

Witnesses:

G. H. WILCOX,
H. H. GRAINGER.