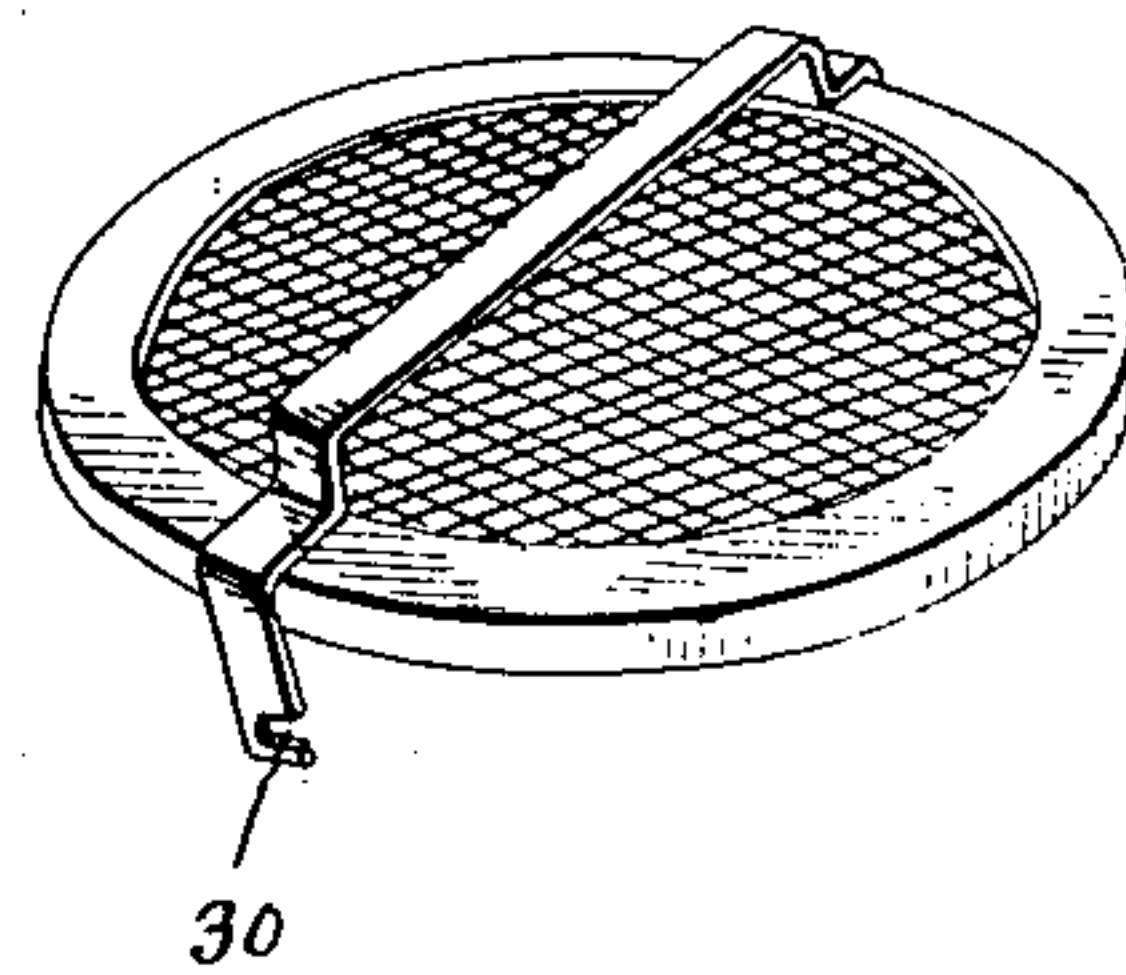
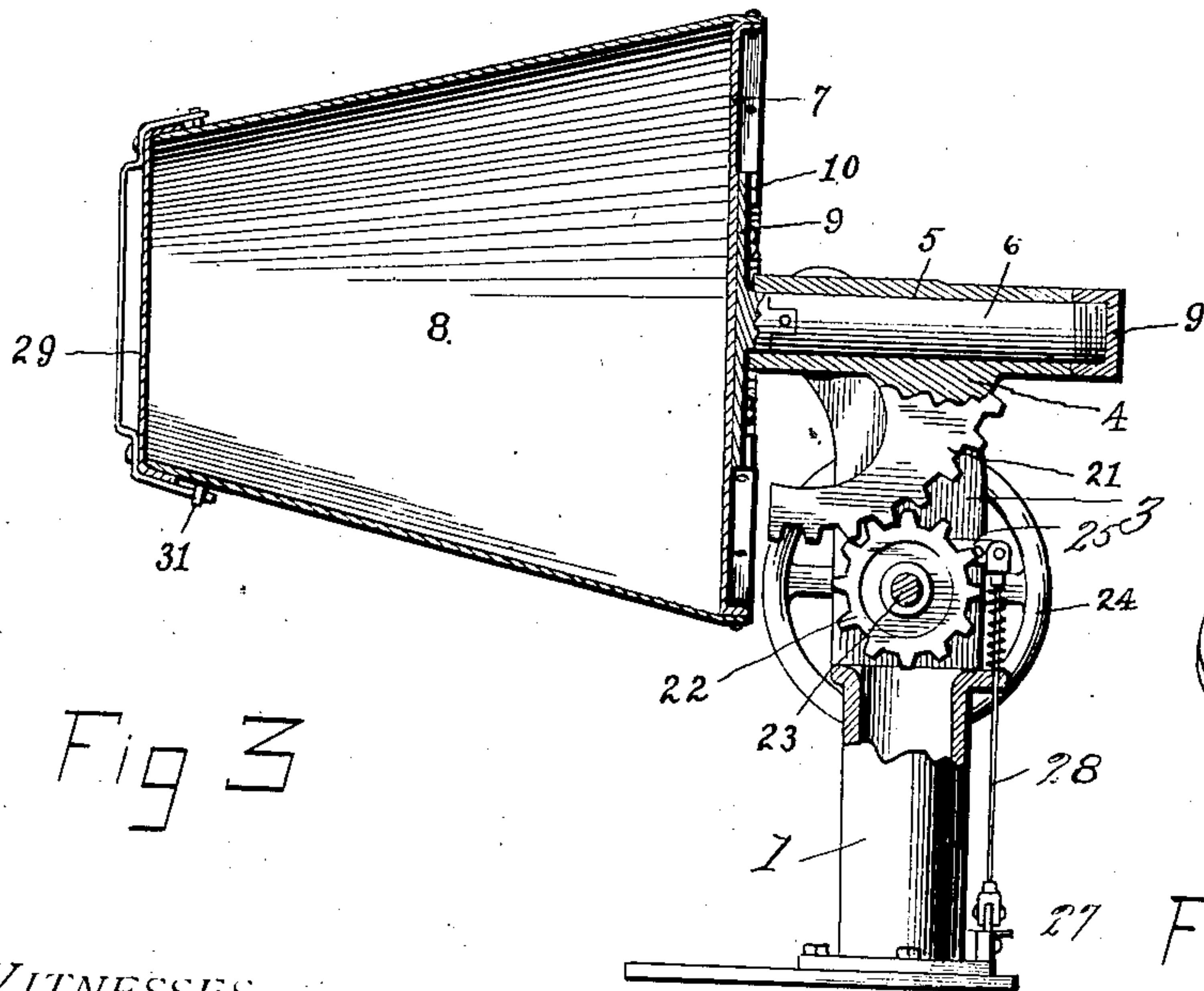
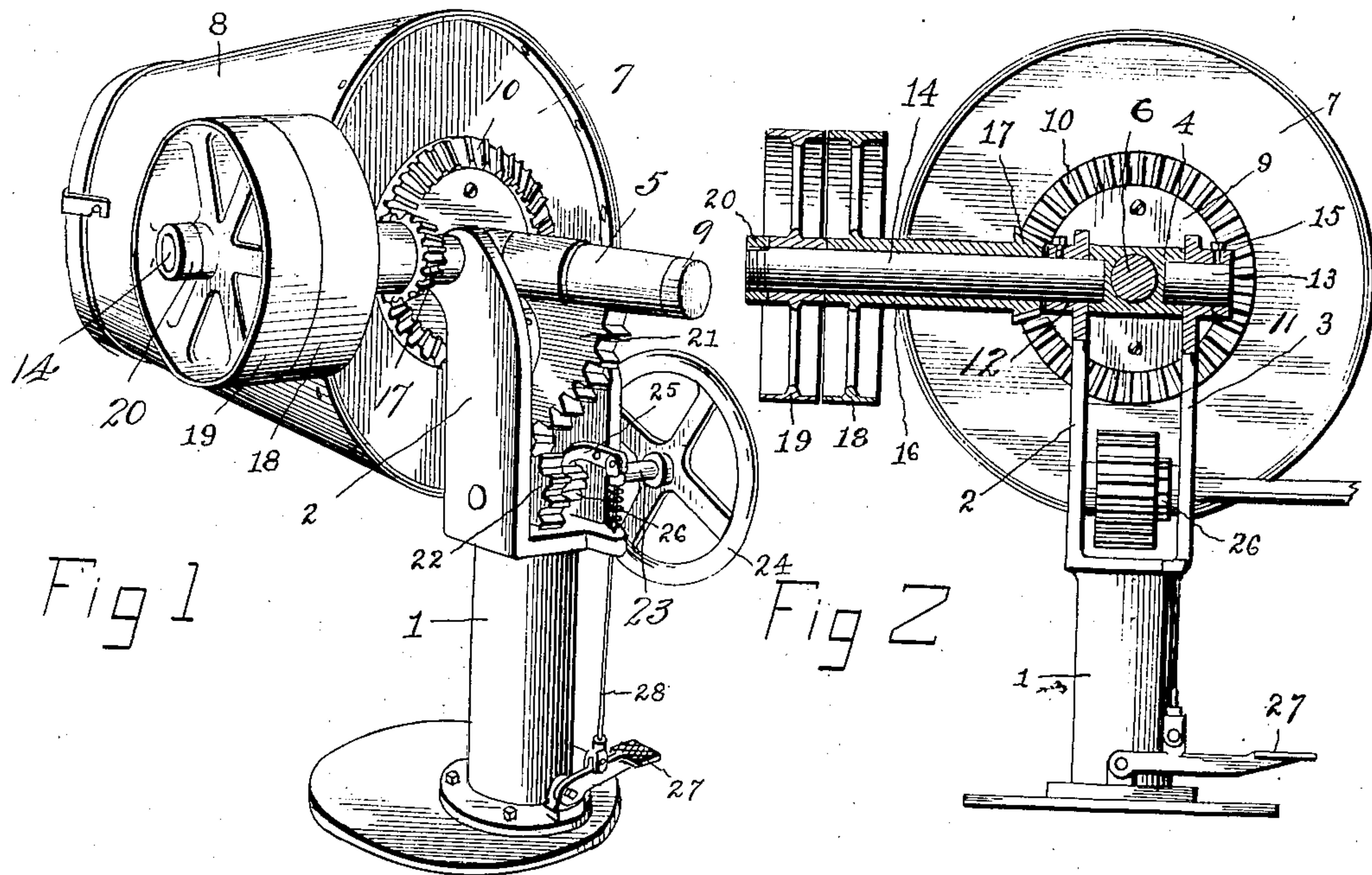


No. 814,166.

PATENTED MAR. 6, 1906.

A. F. SCHROEDER.
TUMBLING BARREL.
APPLICATION FILED APR. 29, 1905.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALBERT F. SCHROEDER, OF CLEVELAND, OHIO.

TUMBLING-BARREL.

No. 814,166.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed April 29, 1905. Serial No. 258,082.

To all whom it may concern:

Be it known that I, ALBERT F. SCHROEDER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Tumbling-Barrels, of which the following is a specification.

My invention relates to tumbling-barrels, and has for its object to provide a tumbling-barrel which is simple in construction, yet adapted to fulfil all the requirements demanded of such a barrel in practical use.

It is a further object of my invention to provide a tumbling-barrel which may be easily tilted while being revolved and is capable of being revolved at any angle desired.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of my improved tumbling-barrel. Fig. 2 is a rear view of the same. Fig. 3 is a side view, partly in section; and Fig. 4 is a perspective view of a screen-top adapted to be used in connection with the barrel.

Referring to the drawings, 1 is a supporting-frame, comprising a base portion and upwardly-projecting arms 2 and 3. Pivoted between said arms is a member 4, having a bearing 5 for stub-shaft 6, secured to the bottom 7 of barrel 8. This stub-shaft 6 extends through its bearing, and upon its threaded projecting end is screwed a bearing-cap 9. The barrel 8, which may be constructed of sheet metal, wood, or any other suitable material, has preferably the form of a truncated cone. The stub-shaft 6 is secured to the bottom 7 of barrel 8 by a circular plate 9, on the outer periphery of which is formed a circular rack 10.

The pivoted member 4 is provided with bearing-recesses 11 and 12, which receive the ends of shafts 13 and 14, held in sockets in the upper ends of arms 2 and 3 by set-screws 15. On the shaft 14 a sleeve 16 is mounted, upon the inner end of which pinion 17 is formed, said pinion meshing with the circular rack 10 on the bottom of the barrel. Motion

is transmitted to pinion 17, and through it to the barrel, by pulley 18, fixed on sleeve 16. A loose pulley 19 is journaled on shaft 14 adjacent to pulley 18 and is held on said shaft by bearing-nut 20. On the under side of pivoted member 4 a segmental rack 21 is formed, which meshes with the pinion 22, keyed to shaft 23. This shaft 23, mounted in the lower part of arms 2 and 3 of the frame, has provided on its outer end a hand-wheel 24, by which the pinion 22 is turned. A pawl 25 and ratchet 26 are also provided in connection with this shaft to lock the same in any desired position, said locking means being released by a pedal 27, connected to pawl 25 by rod 28.

In Fig. 3 the barrel is shown equipped with a solid cap 29, secured to the end thereof by slots 30 engaging pins 31. Fig. 4 shows a sieve-cap which may be used to advantage in connection with my invention on some classes of work.

The operation of my device is as follows: The cap 29 being removed and the barrel being in a substantially upright position, the castings or other articles to be polished are placed therein, together with a polishing material, such as sawdust, leather, meal, or the like. Upon shifting the power-belt from loose pulley 19 to driving-pulley 18 the sleeve 16, together with pinion 17, will be revolved and through rack 10 a rotary motion will be transmitted to the barrel. Should more or less violent agitation be required in order to polish the castings, the barrel will be revolved at a relatively high speed while in the horizontal position. When it is desired to dump the contents of the barrel, the pawl 25 is released by pressing pedal 27. The hand-wheel may then be turned, and with it pinion 22, which is fixed on the same shaft. The turning of pinion 22 will operate, through the segmental rack 21 and the pivoted member 4, to which it is attached, to tilt the barrel and empty its contents.

The tumbling-barrel above described is simple in construction, strong, and durable. It may be operated at any desired angle, will not easily get out of order, and articles being polished can be taken out and inspected without stopping the machine.

Having thus described my invention, what I claim as novel, and desire to secure by Letters Patent, is—

1. In a tumbling-barrel, the combination with a bifurcated supporting-frame of a pair

of stub-shafts fixed in said frame, a member pivoted for tilting movement on said stub-shafts, a barrel having a stub-shaft which has its bearing in said tilting member, a segmental rack carried by the tilting member, a pinion which meshes with said rack, means for rotating said pinion, means for locking said pinion against movement, a sleeve rotatively mounted upon one of the stub-shafts and having a pinion formed thereon and an annular rack carried by the barrel with which said pinion meshes.

2. In a tumbling-barrel the combination of a supporting-frame, a member having diametrically-disposed recesses therein, a driving-shaft forming a pivot in one of said re-

cesses and a second pivot for said member; a segmental rack integral with the pivoted member, a pinion meshing with said rack to tilt the pivoted member, a ratchet to revolve said pinion, a locking-pawl engaging said ratchet, a treadle to release said pawl, a barrel provided with a stub-shaft journaled in the pivoted member, and means for revolving said pivoted member.

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

ALBERT F. SCHROEDER.

Witnesses:

P. S. BALKWILL,
W. F. MAURER.