

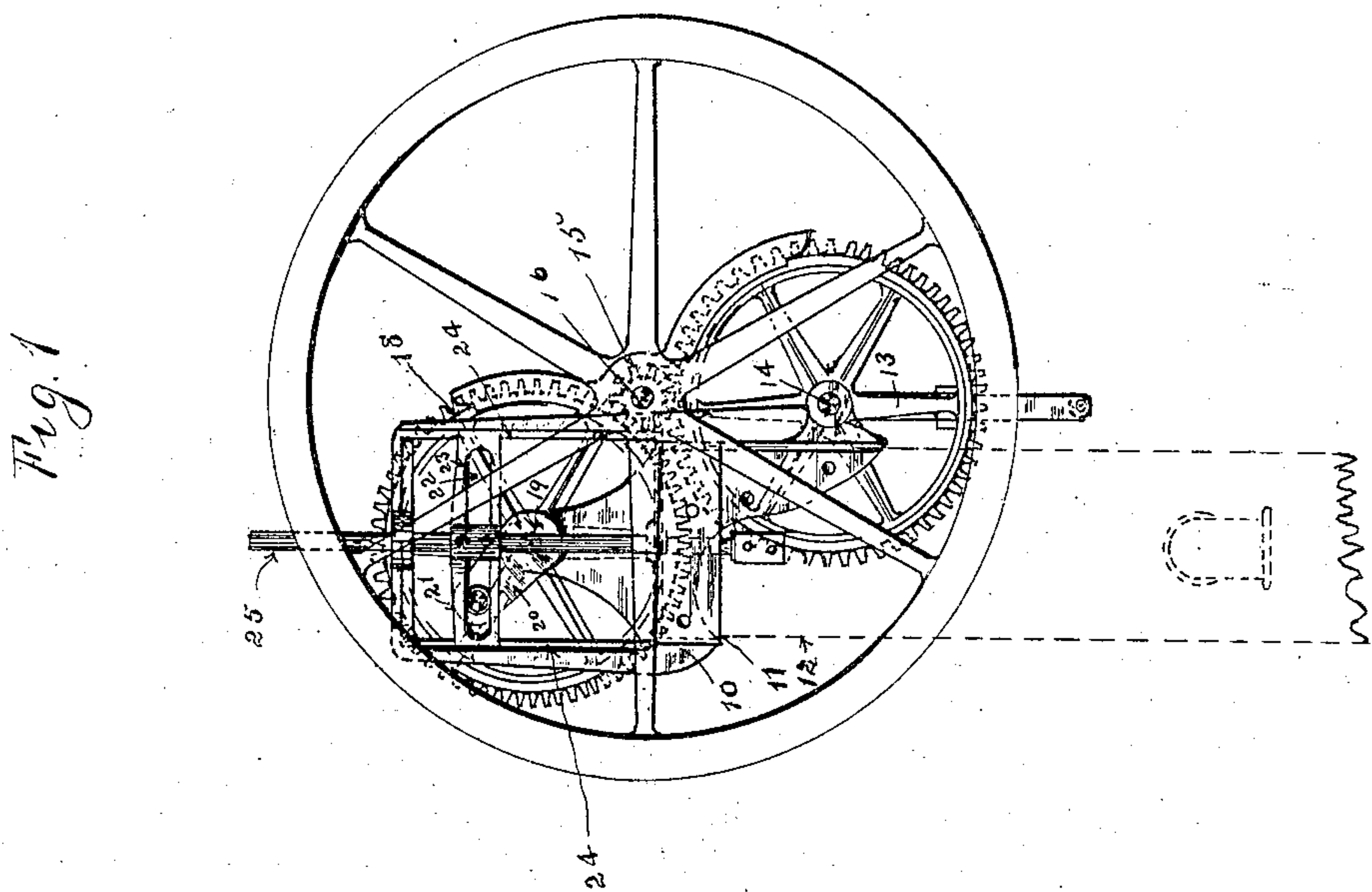
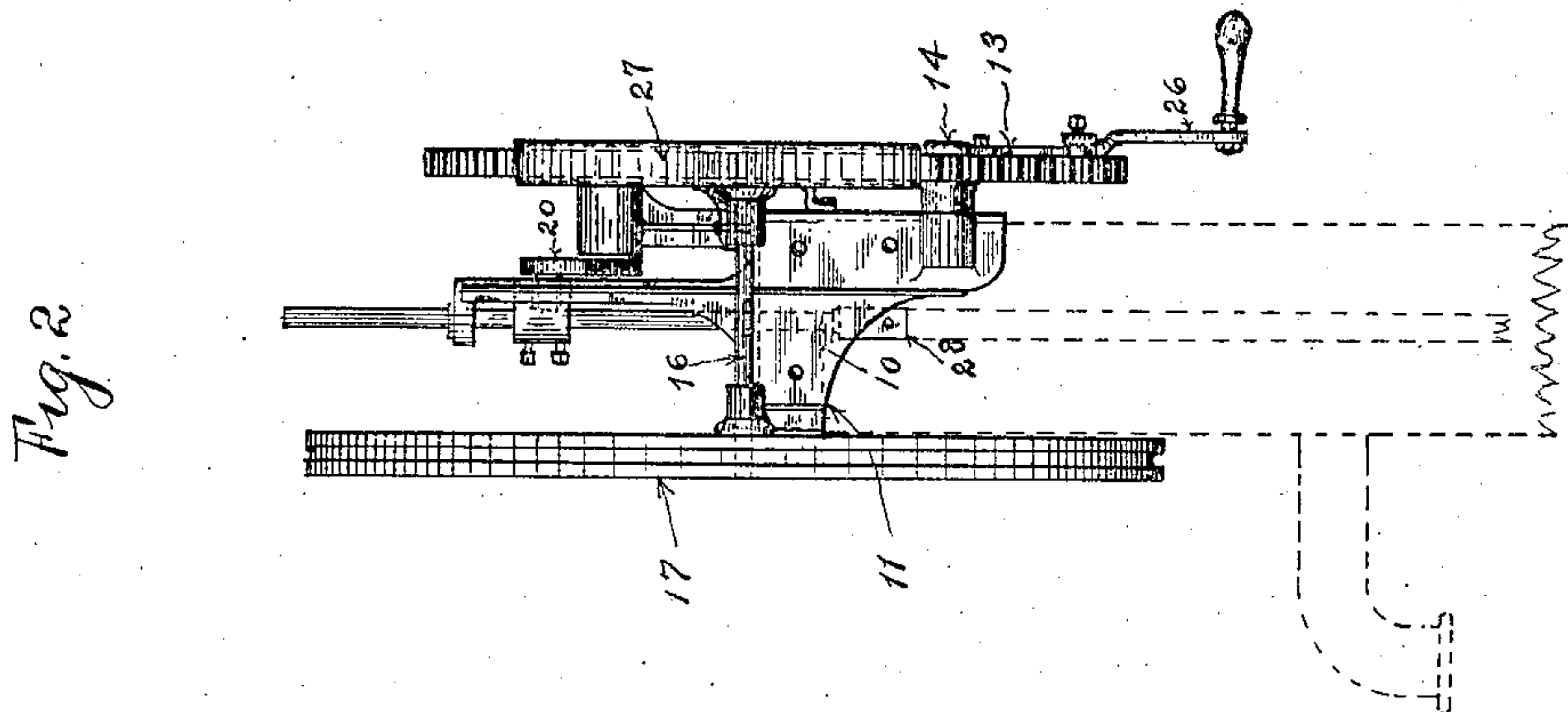
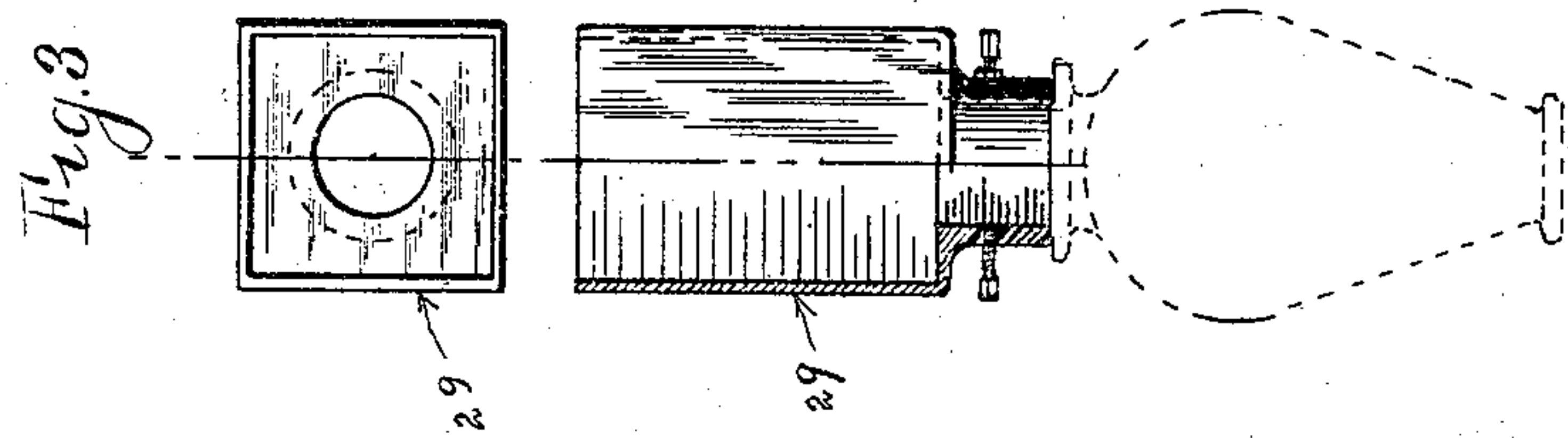
No. 768,650.

PATENTED AUG. 30, 1904.

C. P. BILSON.
PUMP OPERATING MECHANISM.

APPLICATION FILED OCT. 27, 1903.

NO MODEL.



WITNESSES:
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UNITED STATES PATENT OFFICE.

CHRISTIAN P. BILSON, OF CHICAGO, ILLINOIS.

PUMP-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 768,650, dated August 30, 1904.

Application filed October 27, 1903. Serial No. 178,689. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN P. BILSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pump-Operating Mechanism, of which the following is a specification.

This invention relates to novel improvements in mechanism and devices for operating pumps; and its object is to provide a simple and inexpensive mechanism of comparatively few parts which can be easily constructed and applied to a wood or metal pump of any kind for operating the pump at a minimum expenditure of power.

With these and other ends in view the invention consists of the novel construction and arrangement of parts hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the mechanism, showing the outlines of a pump in broken lines. Fig. 2 is a front elevation. Fig. 3 is a projected view showing a head for iron pumps.

Referring to the drawings, in which like numerals of reference indicate corresponding parts in the several figures, 10 designates a frame which is provided with a socket 11 to receive the upper end of a wooden pump 12, to which it is secured in any suitable manner. A drive-gear 13 is mounted on a stub-shaft 14, supported in the frame, and meshes with a power-pinion 15, mounted on a shaft 16, journaled in the frame and carrying a fly-wheel 17. A crank-gear 18 is mounted on a shaft 19, journaled in the frame and carrying a crank 20, which is provided with a roller 21, operating in the transverse slot 22 of a cross-head 23. This cross-head is guided in the guides 24 on the frame, and it is fastened to the pump-rod 25. The mechanism may be operated by a crank-handle 26, attached to the shaft 14 or the drive-gear 13, or a power rope or belt may be run over the fly-wheel 17. A guard 27 of suitable character is preferably arranged, as shown, to protect the gears 13 and 18 and the pinion 15. The crank-handle is attached to the drive-gear 13, so that it will be within easy reach for operation. The pump-

rod is guided at 30 above the cross-head and in an opening in the top 31 of the frame covering the top of the pump.

My improved mechanism is of very simple construction and can be easily and quickly applied to pumps of all descriptions. The section of the pump-rod which preferably forms a part of the mechanism for convenience in connecting it with pumps already in use is provided with a socket 28 at its lower end to receive the rod in the pump. As the barrel or body of a metal pump is generally smaller than a wooden pump, I provide the head 29, Fig. 3, which is clamped upon the barrel or body of the metal pump to form a continuation thereof and is shaped to fit in the socket of the frame 10.

The operation of the mechanism will be readily understood, and it will be observed that by reason of the multiple gearing very little power is required. The power shaft and pinion are driven either by means of the crank-handle 26 or a power rope or belt running on the wheel 17, and the pinion in turn drives the crank-gear 18, which operates the crank 20. This crank causes the cross-head and pump-rod fastened thereto to reciprocate very rapidly, and only a little power is required to operate the power shaft and pinion.

Without limiting myself to the exact construction and arrangement of parts herein shown and described, what I claim, and desire to secure by Letters Patent, is—

The combination of a frame, a pump-rod, a slotted cross-head fastened to the pump-rod and guided in the frame, guides for said rod above and below the cross-head, a crank-shaft, a crank mounted on said shaft and provided with a roller operating in the slot of the cross-head, a large gear on said crank-shaft, a power-shaft, a pinion on said power-shaft meshing with said gear, a fly-wheel on the power-shaft, a drive-gear located below the crank and power shafts and meshing with said pinion, and said frame provided with a socket to fit on the upper end of the barrel or body of a pump.

CHRISTIAN P. BILSON.

Witnesses:

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