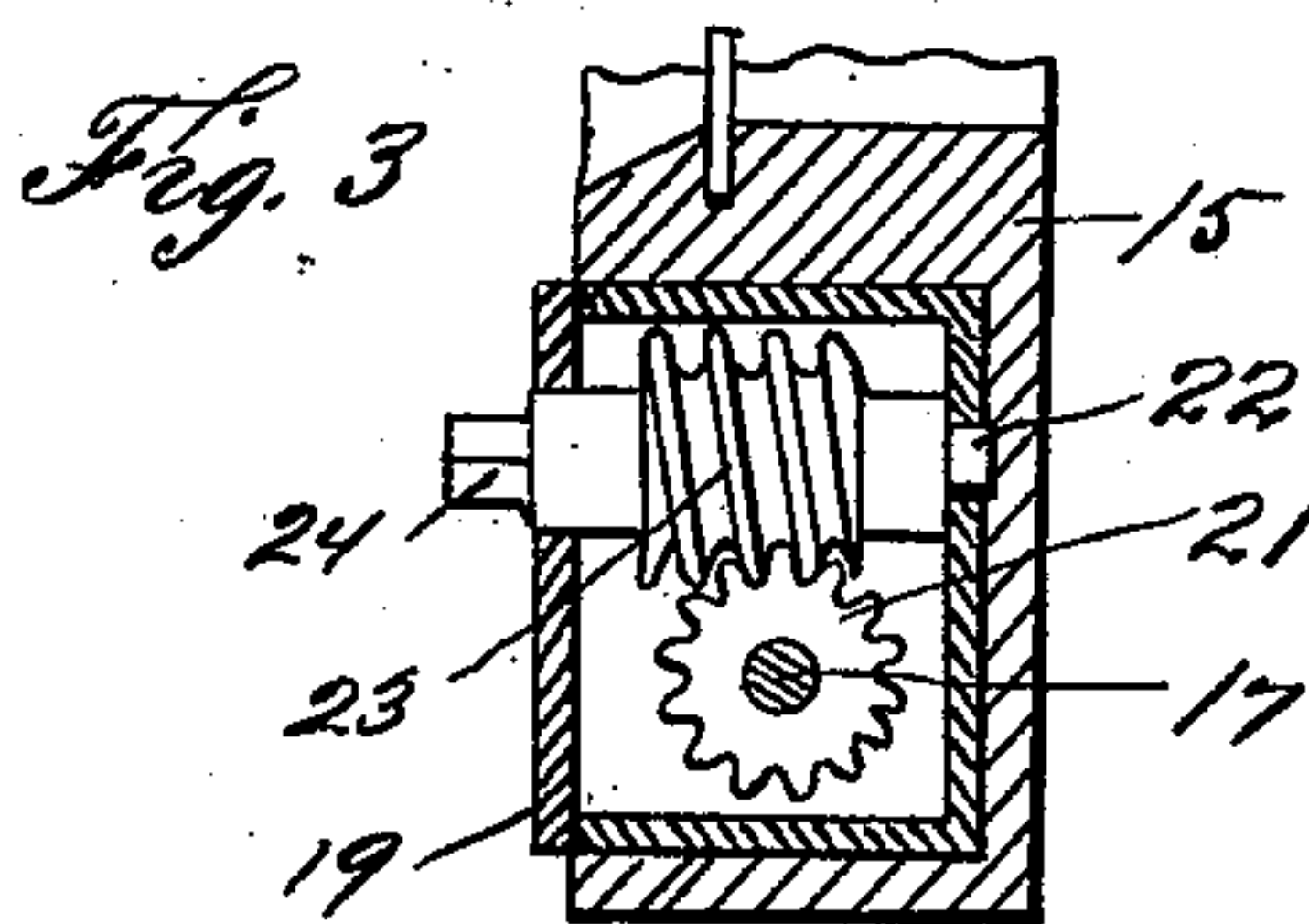
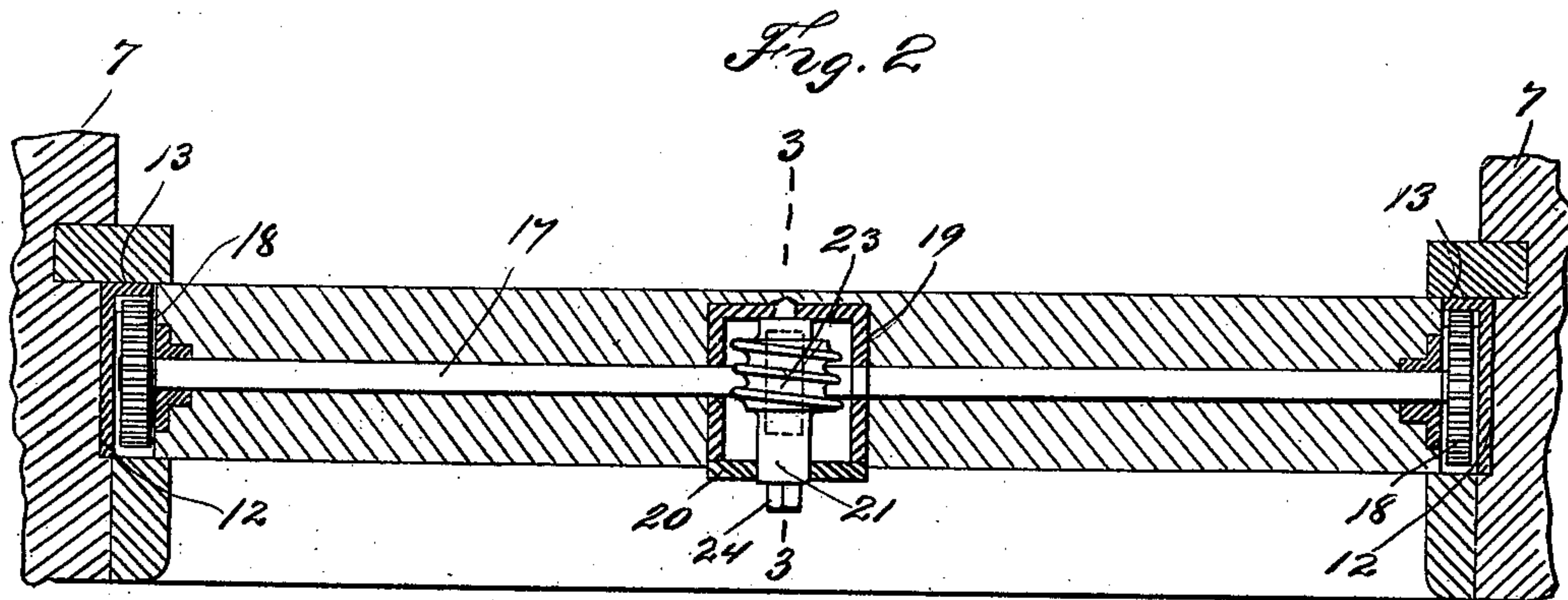
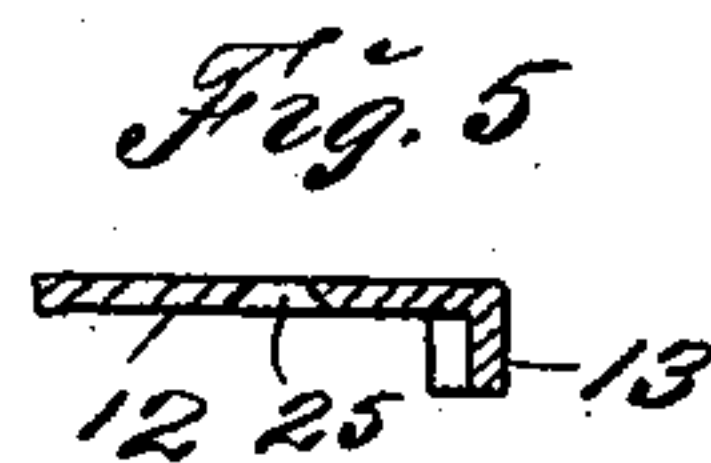
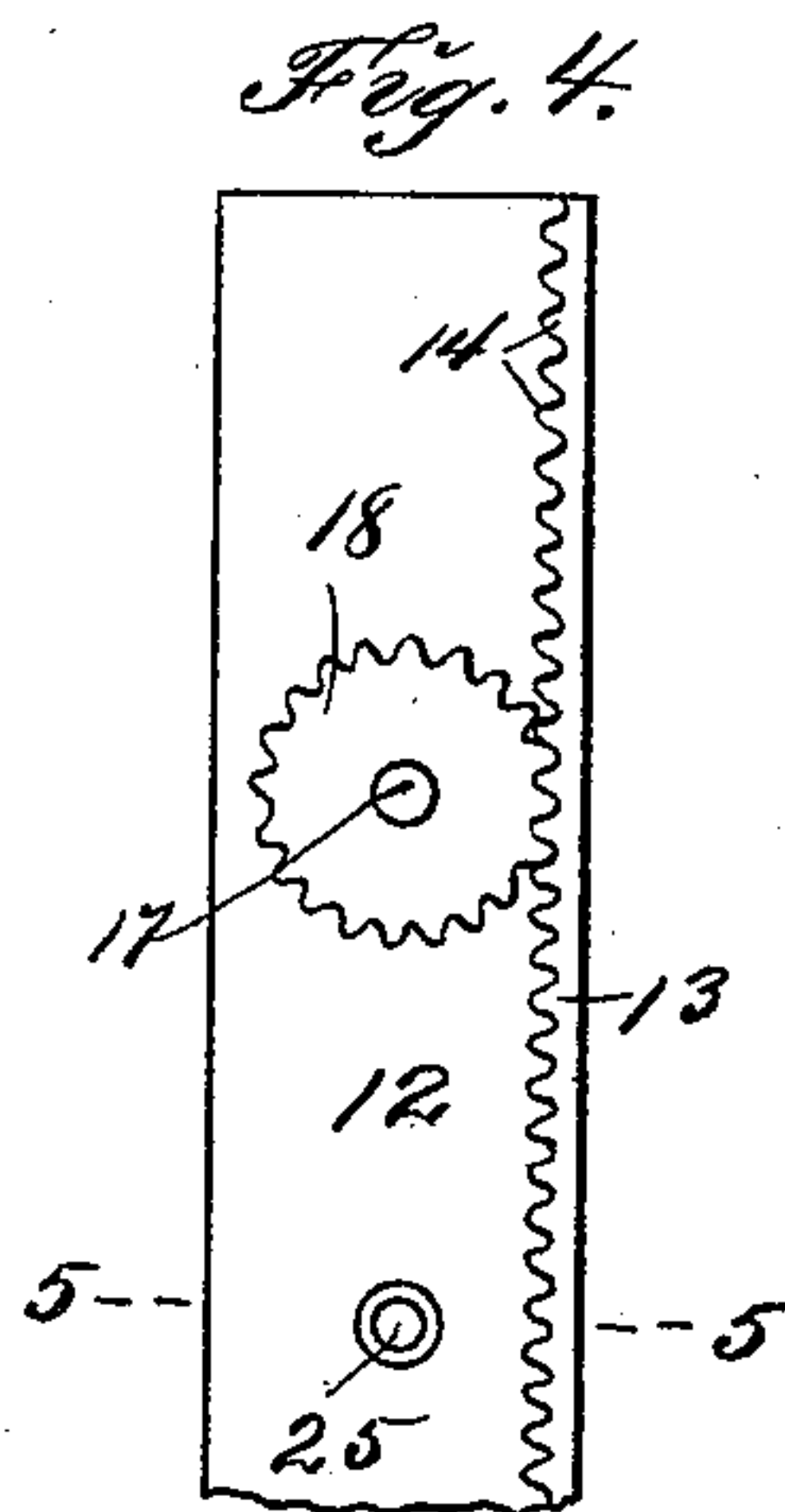
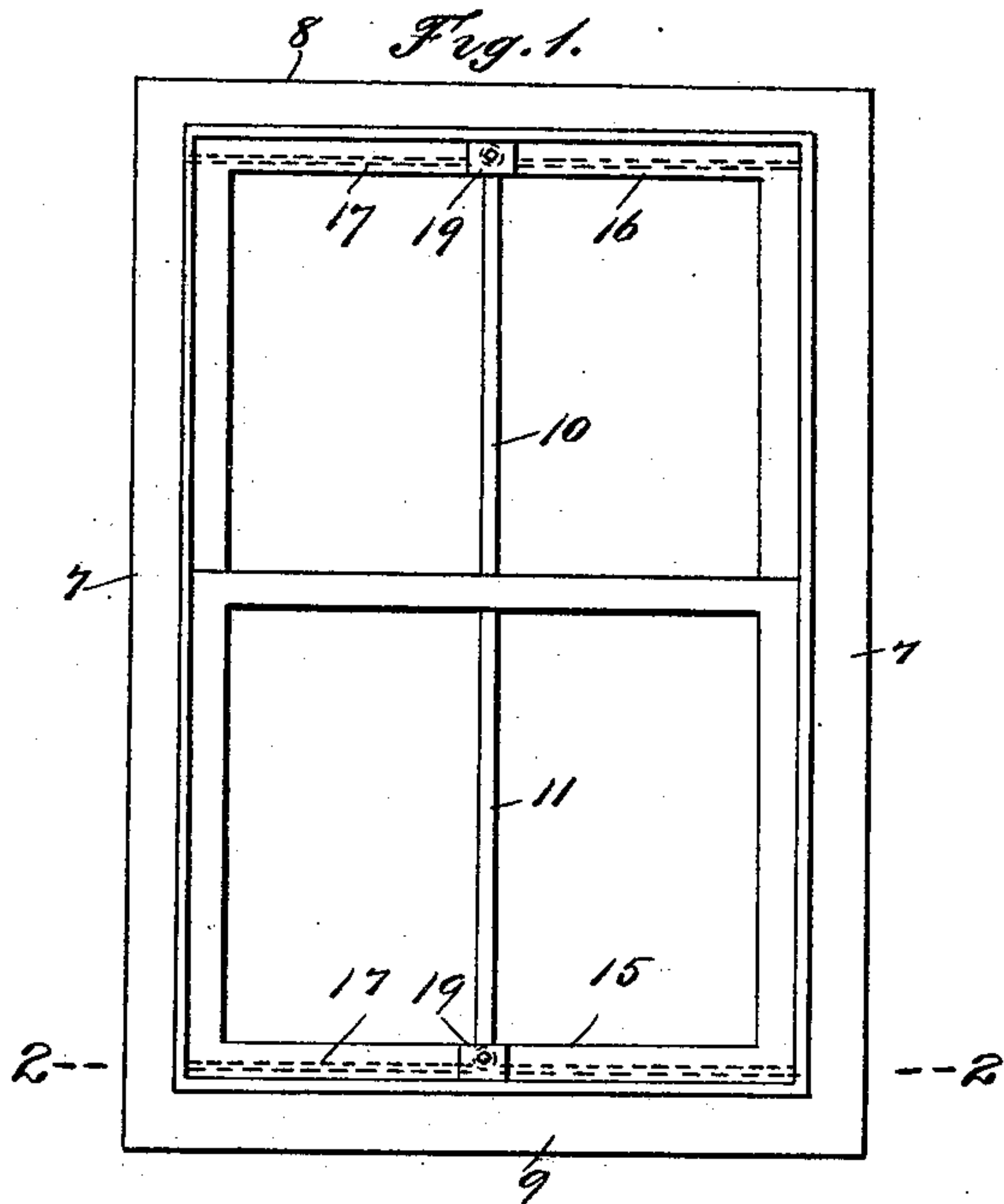


(No Model.)

A. PEARSON.
MEANS FOR RAISING OR LOWERING SASHES.

No. 594,553.

Patented Nov. 30, 1897.



WITNESSES.

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UNITED STATES PATENT OFFICE.

ANDREW PEARSON, OF BROOKLYN, NEW YORK.

MEANS FOR RAISING OR LOWERING SASHES.

SPECIFICATION forming part of Letters Patent No. 594,553, dated November 30, 1897.

Application filed June 26, 1897. Serial No. 642,496. (No model.)

To all whom it may concern:

Be it known that I, ANDREW PEARSON, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Means for Raising or Lowering the Sashes of Windows, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to means for raising and lowering the sashes of windows and for locking the same in any desired position; and the object thereof is to provide a lifting mechanism which may be operated from the central part of the sash and supports equally both sides of the sash.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a front view of a window-frame and the sashes mounted therein and provided with my improvement; Fig. 2, a section on the line 2 2 of Fig. 1; Fig. 3, a section on the line 3 3 of Fig. 2; Fig. 4, a side view of a ratchet plate and bar and an end view of a shaft provided with a ratchet-wheel which I employ, and Fig. 5 a section on the line 5 5 of Fig. 4.

In the drawings forming part of this specification the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in said drawings I have shown a window-frame consisting of the sides 7 and top and bottom pieces 8 and 9, and mounted in said frame are the usual upper and lower sashes 10 and 11.

In the practice of my invention I secure to the sides of the frame, adjacent to the sides of the sashes, metal plates 12, each of which is provided at one edge, preferably the outer edge thereof, with an inwardly-directed flange 13, which is provided on the front side with ratchet-teeth 14, whereby said flange serves as a rack-bar, and I also pass through the bottom bar 15 of the lower sash and the top bar 16 of the upper sash a shaft or rod 17, and this shaft or rod is provided at each end with a ratchet or gear wheel 18, and said ratchets or gear wheels 18 operate in connection with said rack-bars formed by the flanges 13 and the ratchet-teeth 14. In the center of

the cross-bars 15 and 16 of the lower and the upper sashes is mounted an angular casing 19, the front of which projects through said bars, as shown at 20, and the shafts or rods 17 extend through these casings, and said shafts or rods are each provided within said casings with a gear-wheel 21, and mounted directly over the gear-wheel 21 is a transverse shaft 22, provided with a worm-gear 23, and the front end of the shaft 22 of each of the casings 19 projects through the front of said casing and is provided with an angular extension 24, which is adapted to receive a crank.

The plates 12 are provided with openings 25, by which they may be secured to the sides of the frame, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

Whenever it is desired to raise or lower either of the sashes, the crank is applied to the end 24 of the shaft 22, and by turning said shaft the worm-gear 23 will operate in connection with the corresponding gear-wheel 21 to revolve the corresponding rod or shaft 17, and the ratchets or gear wheels 18 on the opposite ends of said shaft will operate in connection with the rack-bar on the plates 12 to raise or lower said sash, the direction of the movement of the sash depending upon the direction in which the shaft 21 is turned.

It will be apparent that it will be impossible to raise or lower said sashes by taking hold of the sashes, the only way that the shaft 21 can be turned being by means of a crank or similar device connected therewith, and it will also be apparent that for this reason the sashes will be held at any desired point or will be locked in any position in which they are placed and the raising or lowering of said sashes from the outside of the building will be impossible.

My improvement is simple in construction and operation and perfectly adapted to accomplish the result for which it is intended, and it will be apparent that changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, I

claim as new and desire to secure by Letters Patent—

5 The herein-described device for raising and lowering the sash of a window and for locking the same in position comprising a plate mounted in the guideway at each side of the frame and which is provided with an inwardly-directed flange having a rack-bar formed thereon, a shaft mounted in one end of the
10 sash and provided at each end with a pinion adapted to engage the corresponding rack-bar, a transverse shaft mounted above the first-named shaft and provided with a worm-

gear, said first-named shaft being provided with a pinion adapted to engage said worm-gear, and means for operating said second shaft, substantially as and for the purpose described. 15

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 24th day of June, 1897. 20

ANDREW PEARSON.

Witnesses:

C. GERST,

A. C. VAN BLARCOM.