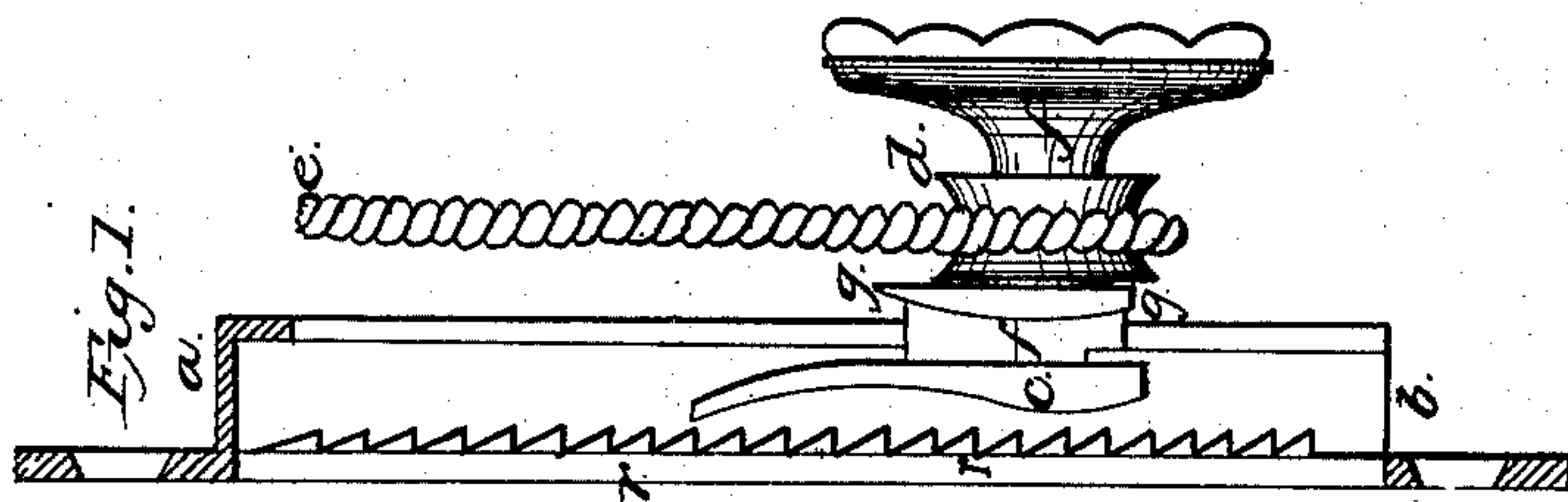
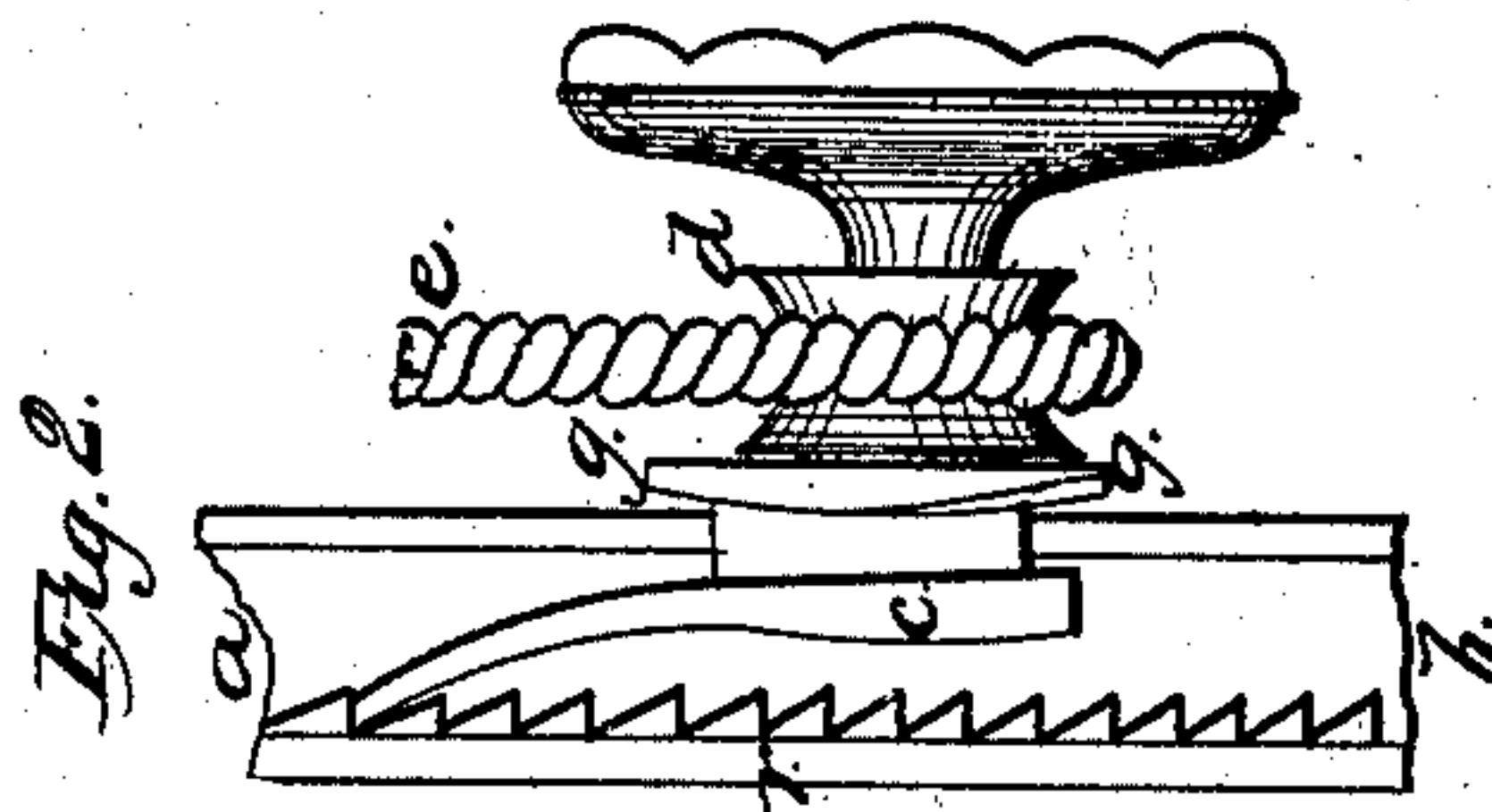
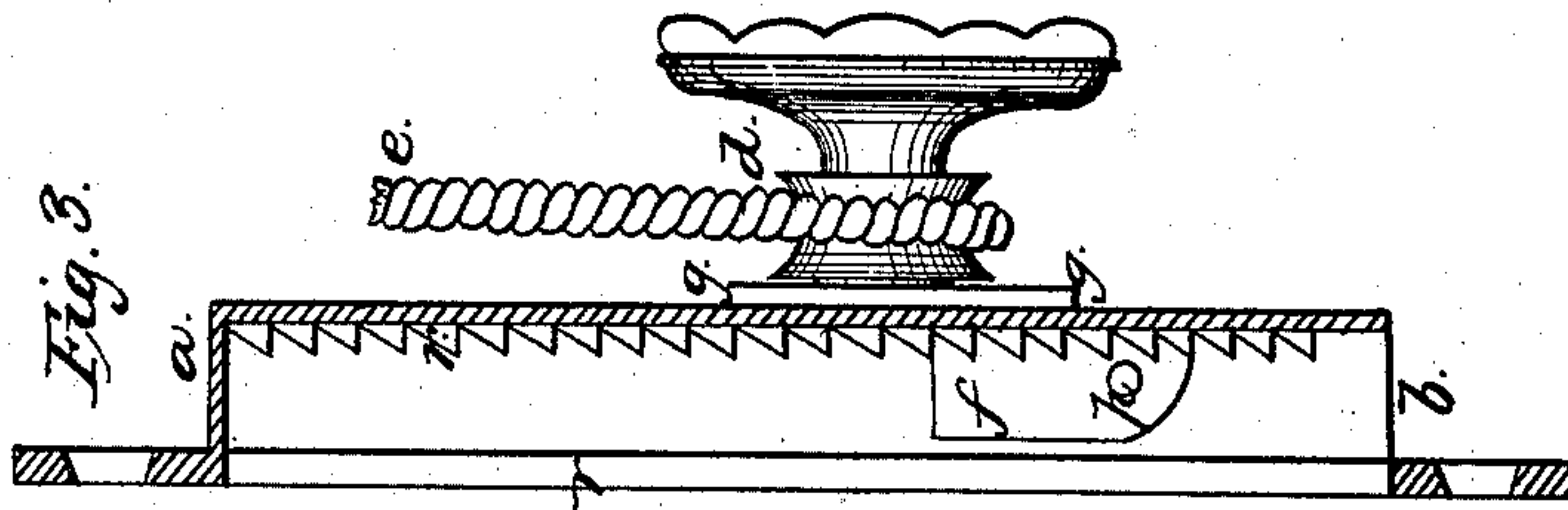
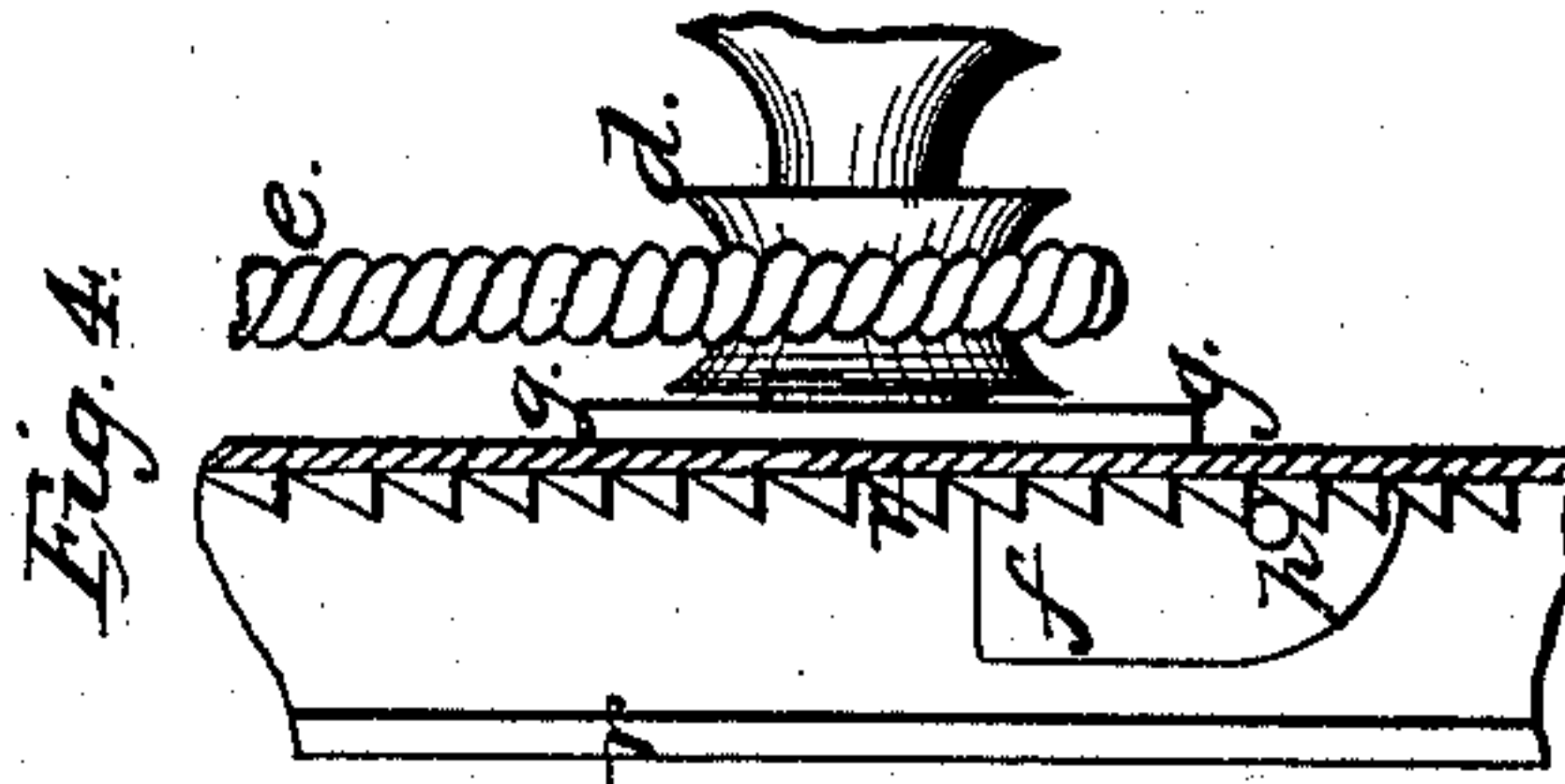
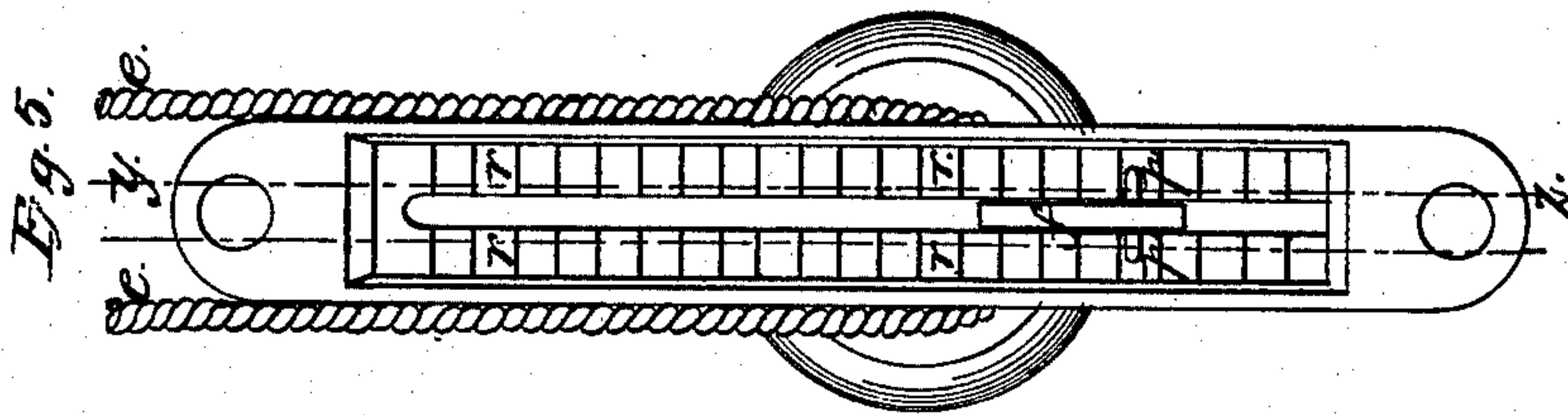


H. GUYER.  
SELF ACTING RACK PULLEY.

No. 7,971.

Patented Mar. 11, 1851.





# UNITED STATES PATENT OFFICE.

HUGH GUYER, OF ALBANY, NEW YORK.

## WINDOW-CURTAIN FASTENING.

Specification of Letters Patent No. 7,971, dated March 11, 1851.

*To all whom it may concern:*

Be it known that I, HUGH GUYER, of the city of Albany and State of New York, have invented a new and useful Improvement in the Rack-Pulleys for Window-Shades, Cur-  
tains or Blinds, which I call "Guyer's Self-Acting Rack-Pulley," and of which the following specification, with the drawings here-  
to appended as part of the same, is a full  
and complete description.

Figures 1 and 2 representing one form of the apparatus, and Figs. 3, 4, and 5, another form thereof.

Similar letters in the figures designating the same parts.

Fig. 1 shows a profile section through the middle of the apparatus, which is of the ordinary form and general arrangement of the rack pulleys generally used for window shades consisting of an oblong metal box *a—b* having within it a sliding pall or catch *c* having a stem or fin *f* projecting through a slot which extends nearly through the whole length with a knob or handle *H* at its outer extremity and on said stem a pulley *d* over which the cord *e* that moves the shade roller runs. On the bottom of this box is a rack *r* into which the pall operates.

In the ordinary rack pulley the pall *c* is a spring itself, or is pivoted to the stem and has a spring backing it, and pressing it down into the rack at the bottom of the box. This spring is found in practice after a short while, from loss of elasticity and other causes, to work imperfectly, and the object of this contrivance is to make a pall which shall be kept in its place in the rack by the tension of the cord itself. This is done by placing upon the stem between the pulley and the box a flat plate or slide of metal *g g* wider than the slot and of convenient length to have a good bearing on the face of the box.

The face of the plate *g g* next the box is not flat but slightly curved in the direction of its length, so that when the handle *H* is pressed downward the plate will oscillate throwing the heel of the pin *f* down and the toe up out of the line of the ratchet teeth and on the contrary when the handle is pressed upward by the tension of the cord or otherwise the heel will rise and the toe drop down against the ratchet teeth and prevent the further ascent of the pulley and cord.

A different arrangement to effect the same

end, is shown in Figs. 3, 4, 5. Figs. 3 and 4 are vertical sections through the apparatus between the slot and the outer edge of the box in the line *y z* Fig. 5, which figure represents the apparatus as seen from behind, in plan. In this form of the apparatus from the flat plate *g g* a thin piece of metal *f* passes through the slot and projects inwardly like a fin and downward toward the lower end of the box. The rack *r* instead of being on the bottom of the box as in Fig. 1 is placed directly opposite on each side of the slot. The face of the plate *g g* next the box is flat. When lying close to the box a pin *p* is fixed firmly through the fin *f* so as to rest against the rack teeth and prevent the slide from being drawn upward (see Fig. 4).

To detach the pin from the rack it is only necessary to incline the stem downward upon the lower edges of *g* as a pivot when as shown in Fig. 3, the pin will be thrown out of the line of teeth and can be moved upward. But while the stem is pressed upward, as by the pressure of the cord of the blind, or shade, the pin *p* will be kept in its place and the slide immovable.

I claim—

The construction of rack pulleys for window shades, by fixing the pulley over which the cord of the shade roller runs, upon a stem, having a plate sliding on the front outer face of the rack box, attached to a thin plate or fin passing through a slot in said face extending the length of the box the said fin projecting upward and terminating in a point, which acts as a pall against ratchet teeth made in the bottom of said box, or else the said fin projecting downward and having a cross pin through it acting against ratchet teeth in the upper and inner side of said box the said stem and plate in addition to the sliding motion along the box having an oscillating motion on the upper or lower edge of the plate, by means of which the upward pressure of the cord on the pulley holds the pall or pin against the ratchet teeth or, the downward pressure of the hand, carries the pall or pin, out of the line of the teeth and permits the pulley to be moved upward when required, substantially as set forth in this specification.

HUGH GUYER.

Witnesses:

JOHN DOE,  
JAMES B. SANDERS.