

(No Model.)

P. M. YOUNG & W. H. KINCAID.

SHUTTER WORKER.

No. 341,201.

Patented May 4, 1886.

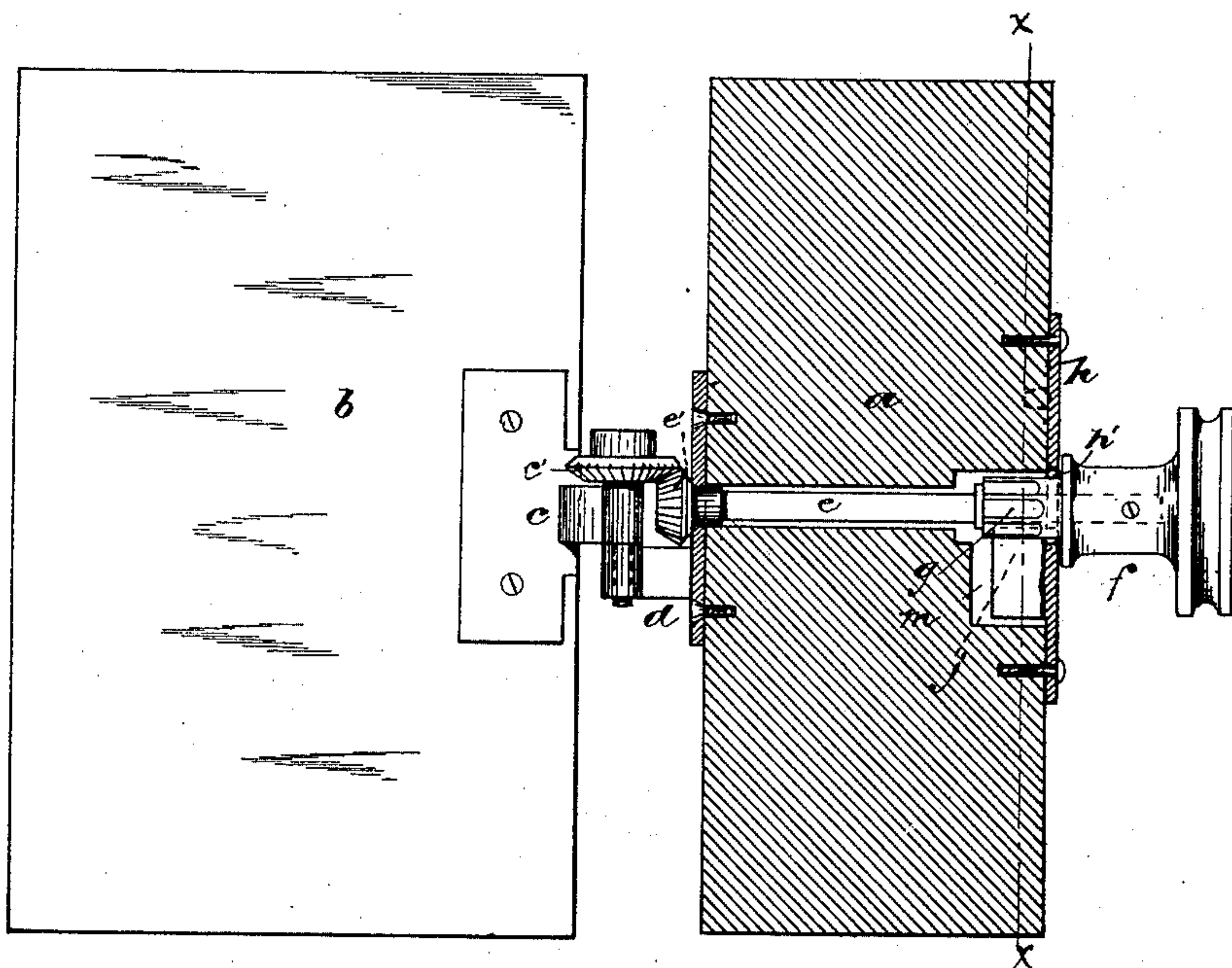


Fig. 1.

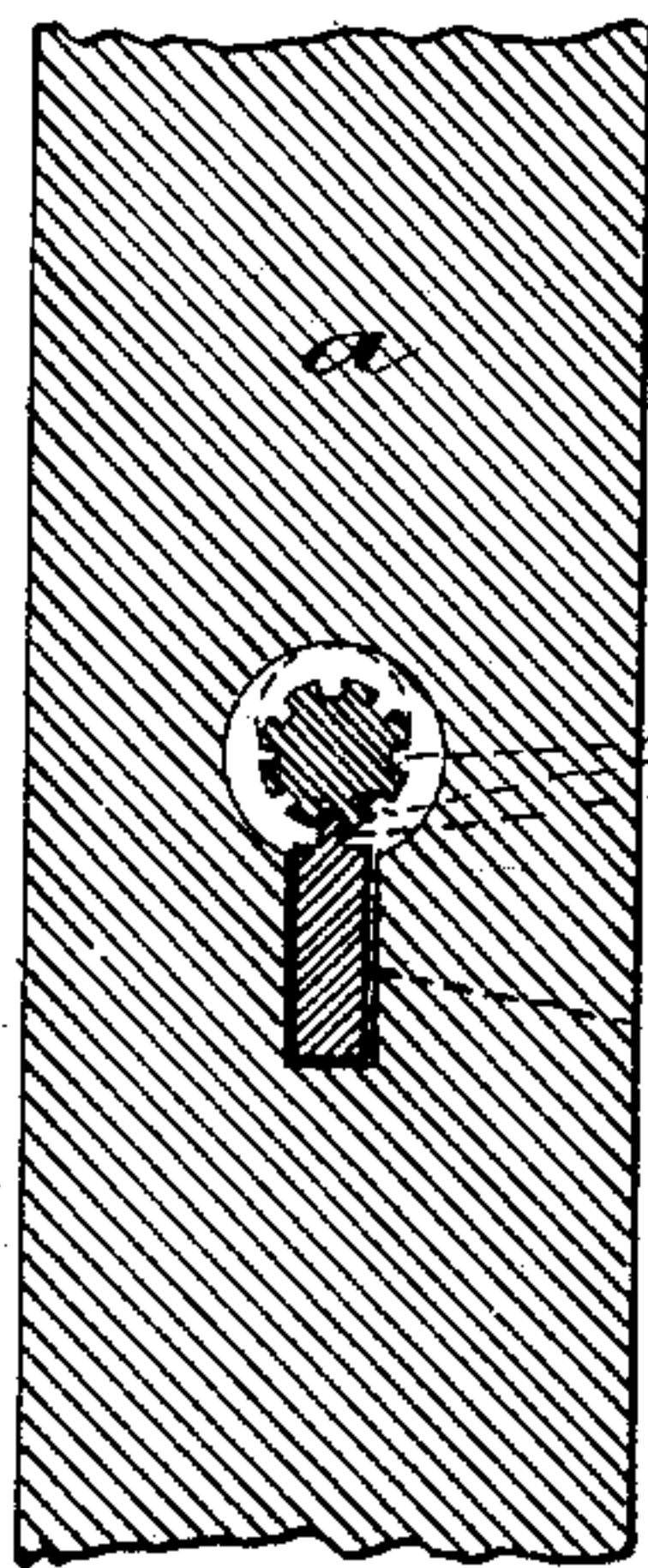


Fig. 2.

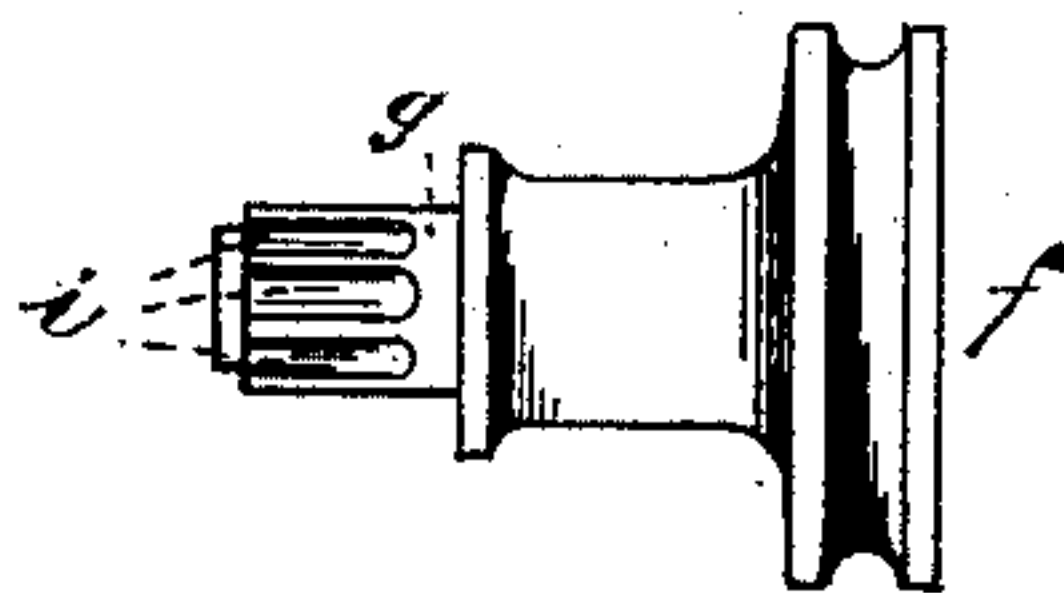


Fig. 3.

Attest:

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UNITED STATES PATENT OFFICE.

PETER M. YOUNG AND WILLIAM H. KINCAID, OF NEWARK, NEW JERSEY.

SHUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 341,201, dated May 4, 1886.

Application filed November 1, 1884. Serial No. 146,987. (No model.)

To all whom it may concern:

Be it known that we, PETER M. YOUNG and WILLIAM H. KINCAID, citizens of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Inside Shutter Openers and Closers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to simplify and improve the construction of shutter-workers, and to overcome certain objectionable features existing in those heretofore in use.

It consists in the improved shutter-worker, constructed and adapted to operate substantially as and for the purposes hereinafter set forth, and finally embodied in the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the figures, Figure 1 illustrates the relation of our improvements to the window frame and shutter. Fig. 2 is a section of the frame and worker taken through line *x*, and Fig. 3 is a detail of a cogged or notched knob or hand-piece by which the device is operated.

In said drawings, *a* indicates the window-frame or a portion thereof, *b* the shutter, *c* the shutter hinge section or plate, and *d* the frame-section. The said section *c* is provided with an angle gear-wheel, *c'*, and the shutter-plate is perforated, and thus provides a bearing for a rotating or revolving shaft, *e*, which passes through said plate and backward through a suitable opening in the frame to the interior of the house, passing in its course through an inside bearing-plate, *h*.

On the outside end of the shaft the same is provided with an angle gear-wheel, *e'*, which engages with that on the plate *c*, and thereby causes the said wheel *c'* to turn, and with it the shutter, when the shaft *e* is revolved or rotated.

To the inner end of the shaft is attached a knob, *f*, the shank *g* of which has its bearings in the said plate *h*, attached to the inside of

the frame, or the casing thereof. Said shank is cogged, or provided with a series of notches or recesses, *i*, Figs. 2 and 3, to engage a lug or projection, *j*, formed on the plate *h*. The opening *h'* in the plate *h*, through which the shaft *e* or shank *f* passes, is vertically oblong to allow the notched shank to be raised from holding engagement with the said projection, which is preferably formed on the back of the inside plate, and is thus adapted to be secured in a notch or recess or mortise, *m*, in the frame, whereby it is prevented from being forced from the plate *h* by excessive lateral strain.

In operating the device the handle *f* is simply raised in the vertical slot *h'* from engagement with the projection *j* and then turned pivotally, causing the angle-cog or gear wheel *e'* to revolve the gear *c'*, and with it the shutter, all as will be clearly understood.

We are aware of the devices shown in United States Patents Nos. 93,934, 143,416, and 217,873, and do not wish to be understood as claiming anything therein shown or described.

By the peculiar construction of our device the mechanical parts for holding the shutter in a fixed position are all hidden behind the escutcheon, rose, or bearing-plate *h*, secured to the inside casing, so as not to detract from a proper furnishing or ornamentation of the room. Furthermore, the fastening is accomplished without drawing the shaft out into the room, where it is liable to be bent or broken, and also detracts from the appearance of the room, as above. Again, when the shutter is to be fastened in any of the several positions, no care is required in fastening, the weight of the knob or handle causing the peripherally notched or cogged portion to drop automatically into holding relation with the plate *h*.

Although we do not wish to limit ourselves to having the fastening-cogs on the shank of the knob, yet we prefer that arrangement to secure a larger number of cogs around the periphery of the shaft, so that we may be able to fasten the shutter at a greater number of points in its range of movement.

Having thus described the invention, what we claim as new is—

In a shutter-worker, the combination, with

a peripherally notched or cogged shaft having
an angle-cog to engage a cog, of the hinge, a
plate, *h*, having an oblong opening providing
bearings for said shaft and allowing a vertical
5 play or movement therein, and having a pro-
jection, *j*, to receive or engage the cogs or
notches of the shaft automatically, substan-
tially as set forth.

In testimony that we claim the foregoing we
have hereunto set our hands this 20th day of 10
October, 1884.

PETER M. YOUNG.

WILLIAM H. KINCAID.

Witnesses:

OLIVER DRAKE,

CHARLES H. PELL.