

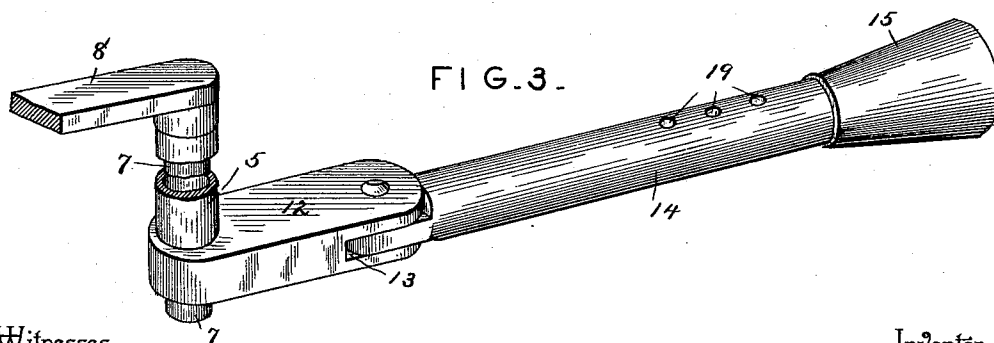
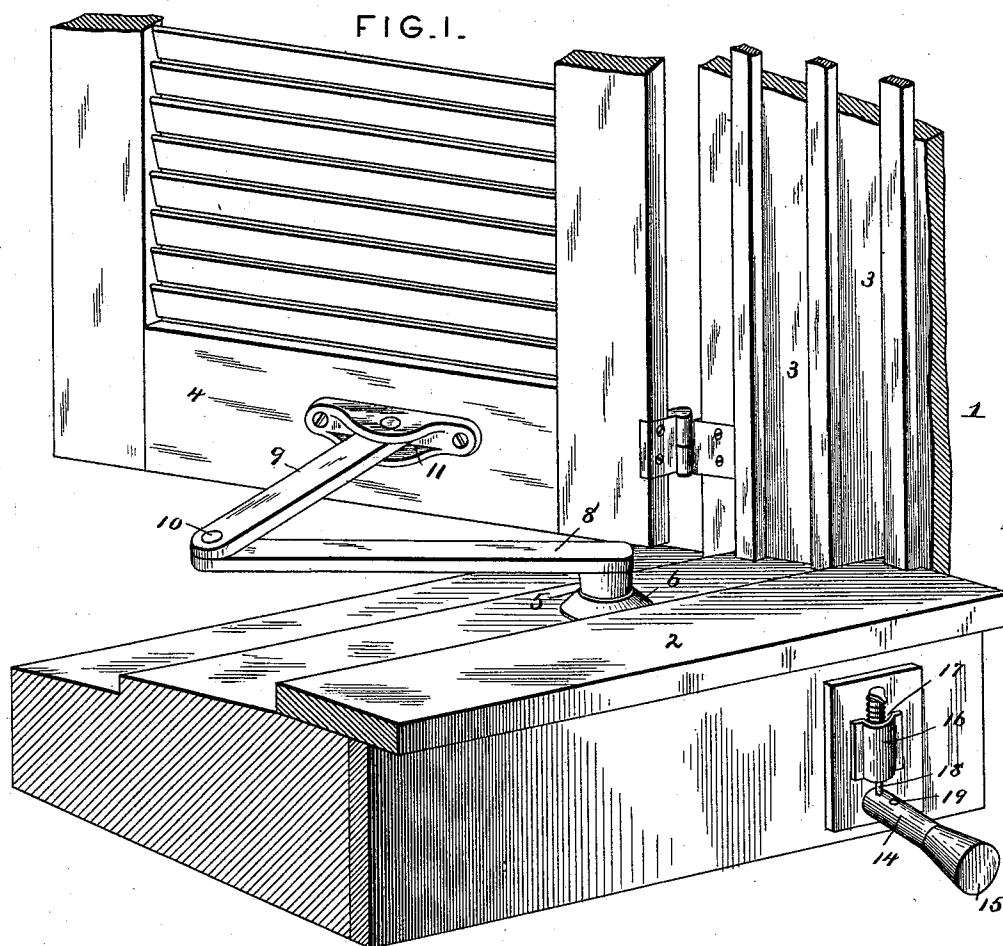
(No Model.)

2 Sheets—Sheet 1.

E. H. PRICE.
SHUTTER WORKER.

No. 479,155.

Patented July 19, 1892.



Witnesses

Inventor

Harry L. Amer.

By his Attorneys,

Edwin H. Price.

Chas. S. Hyer

C. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

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FIG. 2.

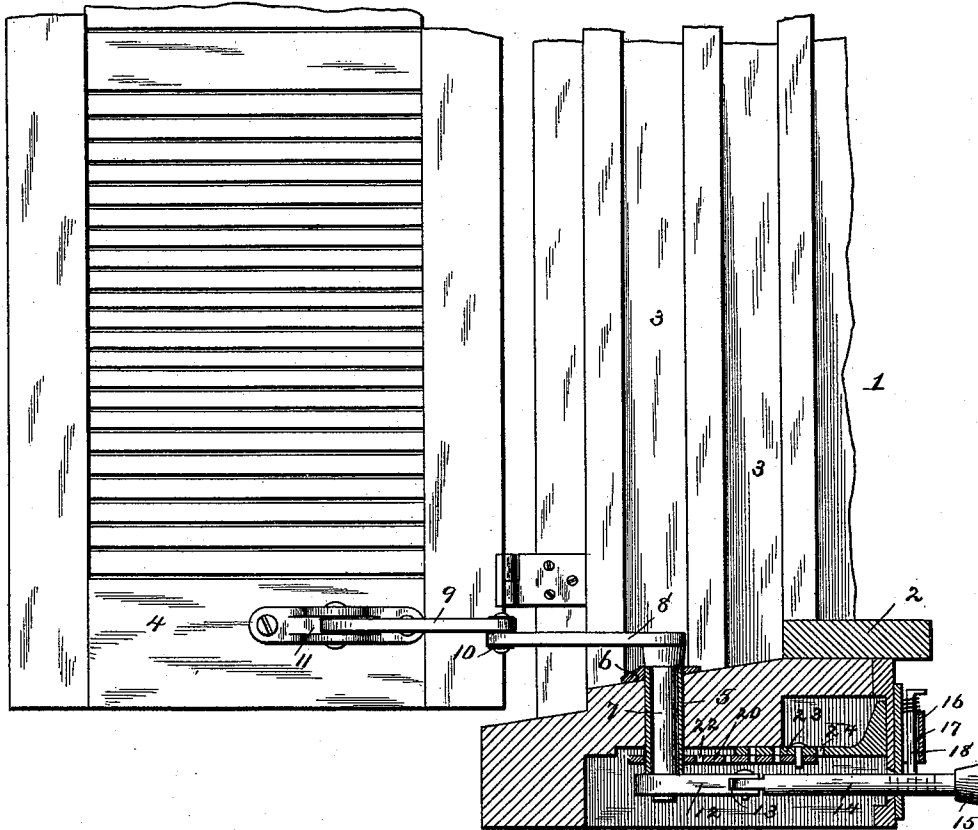
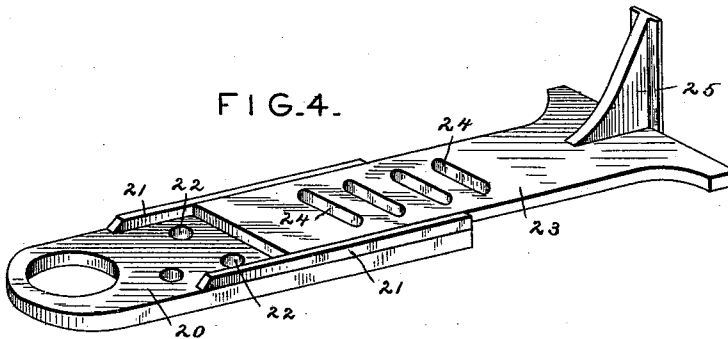


FIG. 4.



Witnesses

Harry L. Amer.

Chas. D. Hyer

By his Attorneys,

Edwin H. Price.

Inventor

UNITED STATES PATENT OFFICE.

EDWIN H. PRICE, OF LANSDALE, ASSIGNOR OF ONE-HALF TO JEREMIAH B. ALDERFER, OF SOUDERTON, PENNSYLVANIA.

SHUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 479,155, dated July 19, 1892.

Application filed April 7, 1892. Serial No. 428,196. (No model.)

To all whom it may concern:

Be it known that I, EDWIN H. PRICE, a citizen of the United States, residing at Lansdale, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Shutter-Worker, of which the following is a specification.

This invention relates to certain new and useful improvements in shutter-workers; and it consists in the construction and arrangement of the parts thereof, as will be more fully hereinafter described and claimed.

The object of the invention is to provide a mechanism by which shutters may be opened or closed from the interior, and also to provide adjusting means whereby the device may be regulated to compensate for walls of varying thicknesses.

In the drawings, Figure 1 is a perspective view of a portion of a window and frame and shutters looking from the interior. Fig. 2 is a transverse vertical section on the line *x x*, Fig. 1. Fig. 3 is a detail perspective view of the operating mechanism removed. Fig. 4 is a similar view of the adjusting mechanism detached from the operating mechanism.

Similar numerals of reference indicate corresponding parts in the several views.

Referring to the drawings, the numeral 1 designates a window-frame having a suitable sill 2, sash-guides 3, and shutters 4, which are hinged to the exterior portion of the frame in the ordinary manner. Extending vertically through the lower or sill portion of the frame on the exterior thereof is a sleeve 5, having an upper flanged end 6, which rests on the said lower portion of the frame or the surface of the sill, and in said sleeve is rotatably mounted a post 7, having one arm 8 of a lazy-tong connection secured to the upper end thereof. To the free end of the said arm 8 is secured an arm 9 by a pivot 10, and the outer end of the arm 9 is pivotally connected to a slotted plate 11, secured to the shutter. The lower end of the post 7 projects beyond the sleeve 5 and extends through a link 12, which has one end fixed thereto and the opposite end slotted or bifurcated, as at 13, in which the inner end of an operating rod or bar 14 is horizontally disposed and pivoted.

The said rod or bar 14 extends through the casing to the interior and is provided with an operating rod or handle 15. On the interior of the lower portion of the casing of the frame is secured an escutcheon 16, having a vertical slot 17 therein, in which is seated a spring-operated catch-pin 18, adapted to take into openings 19 in the rod or bar 14 to thereby lock the same in adjusted position. The said rod or bar 14 is adapted to be supplied with a series of openings 19, which are arranged at regular and predetermined intervals for the purpose of providing means for holding the mechanism in different adjusted positions and control the position of the shutter with relation to the window, as will be readily understood. The catch-pin 18 also acts as a lock to hold the shutters closed or entirely open or, if desired, to hold them at a suitable angle in bowed position. The opening in the lower casing through which the rod or bar 14 passes is formed in the escutcheon 16 in line with the vertical slot 17 therein, and the said opening is slightly larger than the diameter of the rod 14, in order that slight play of said rod may be permitted.

Above the link 12 and secured on the projecting portion of the sleeve 5 is a plate 20, having flanges 21 projecting upward from the edge thereof to form a guideway therein, the bottom of said plate 20 being provided with a series of openings 22, arranged at proper intervals, but preferably about quarter of an inch apart, in order to make a very close and fine adjustment. An arm 23 is adjustably fitted in the plate 20 and is provided with a series of openings 24, which are adapted to align with the openings 22 in the plate 20, and secured in alignment therewith by pins, studs, or other fastenings passing there-through. The inner end of the arm 23 is formed with a head 25, which is secured to the lower portion of the window-casing, and by means of the device, as set forth, the position of the post and the sleeve through which the same passes may be regulated relatively to the thickness of the wall and properly position the same, in order that an accurate operation of the lazy-tong mentioned may be produced.

Each shutter is supplied with the mechanism set forth and is adapted to be worked independently and, owing to the direct action of the several parts, a positive result is obtained.

In operation the knob or handle 15 on the bar or rod 14 is first pushed inward and then drawn backward, so as to actuate the link 12 and the arms of the lazy-tong connection in either opening or closing the shutter. When the shutter is thrown back or fully opened, the bar or rod 14 in its operation is moved laterally to throw the link 12 past a dead-center, and the same operation of pushing and pulling the said rod or bar is repeated, as when the shutter is only partially opened or entirely closed.

That portion of the arm 8 which bears upon the upper or flanged portion of the sleeve 5 is shouldered in order to hold the same in adjusted position. The sleeve 5 acts as a bushing to take up the wear exerted by the rotation of the post 7, and thereby a more strong and durable connection is provided.

The device entire is readily applied to window frame or casing without changing the structure of the latter and avoids the complex arrangement to accommodate the application of the mechanism.

Having thus described the invention, what is claimed as new is—

1. In a shutter-worker, the combination of a lazy-tong connection having one portion thereof pivotally connected to a shutter and a post depending from the other portion of the same, a link connected to the lower end of said post, and a rod or bar pivotally attached to the said link and having a push and pull and lateral movement, substantially as described.

2. In a shutter-worker, the combination of a lazy-tong connection having one portion thereof pivotally connected to a shutter and a post depending from the other portion of the same, a link connected to the lower end of said post, a sleeve surrounding said post and having a flange at the upper end thereof resting on the casing or frame, a bar or rod connected to said link and having a push, pull, and lateral movement and provided with a series of openings, and a spring-actuated

latch-pin adapted to engage the openings of said bar or rod, substantially as described.

3. In a shutter-worker, the combination of a post depending from a part thereof, a sleeve surrounding said post, a flanged plate connected to said sleeve and having openings in the bottom thereof, and an arm secured to the frame or casing and having openings therein, said arm being adjustably fitted in the said plate and adapted to have the openings therein align with the openings in said plate to receive a fastening, substantially as described.

4. In a shutter-worker, the combination of a lazy-tong connection having one portion thereof pivotally connected to a shutter and a post depending from the other portion of the same, a link connected to the lower end of said post, a sleeve surrounding said post and having a flange at the upper end thereof resting on the casing or frame, a bar or rod connected to said link and having a push, pull, and lateral movement and provided with a series of openings, a spring-actuated latch-pin adapted to engage the openings of said bar or rod, a flanged plate connected to said sleeve and having openings in the bottom thereof, and an arm secured to the frame or casing and having openings therein, said arm being adjustably fitted in the said plate and adapted to have the openings therein align with the openings in the plate to receive a fastening, substantially as described.

5. An adjusting device for a shutter-worker, consisting of a flanged plate connected to the mechanism of the worker and having openings therein, and an arm secured to the frame or casing of the window and in like manner provided with openings, said arm being adjustably fitted in the said plate and adapted to have the openings therein align with the openings in the plate to receive a fastening, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWIN H. PRICE.

Witnesses:

E. G. SIGGERS,
JOHN H. SIGGERS.