

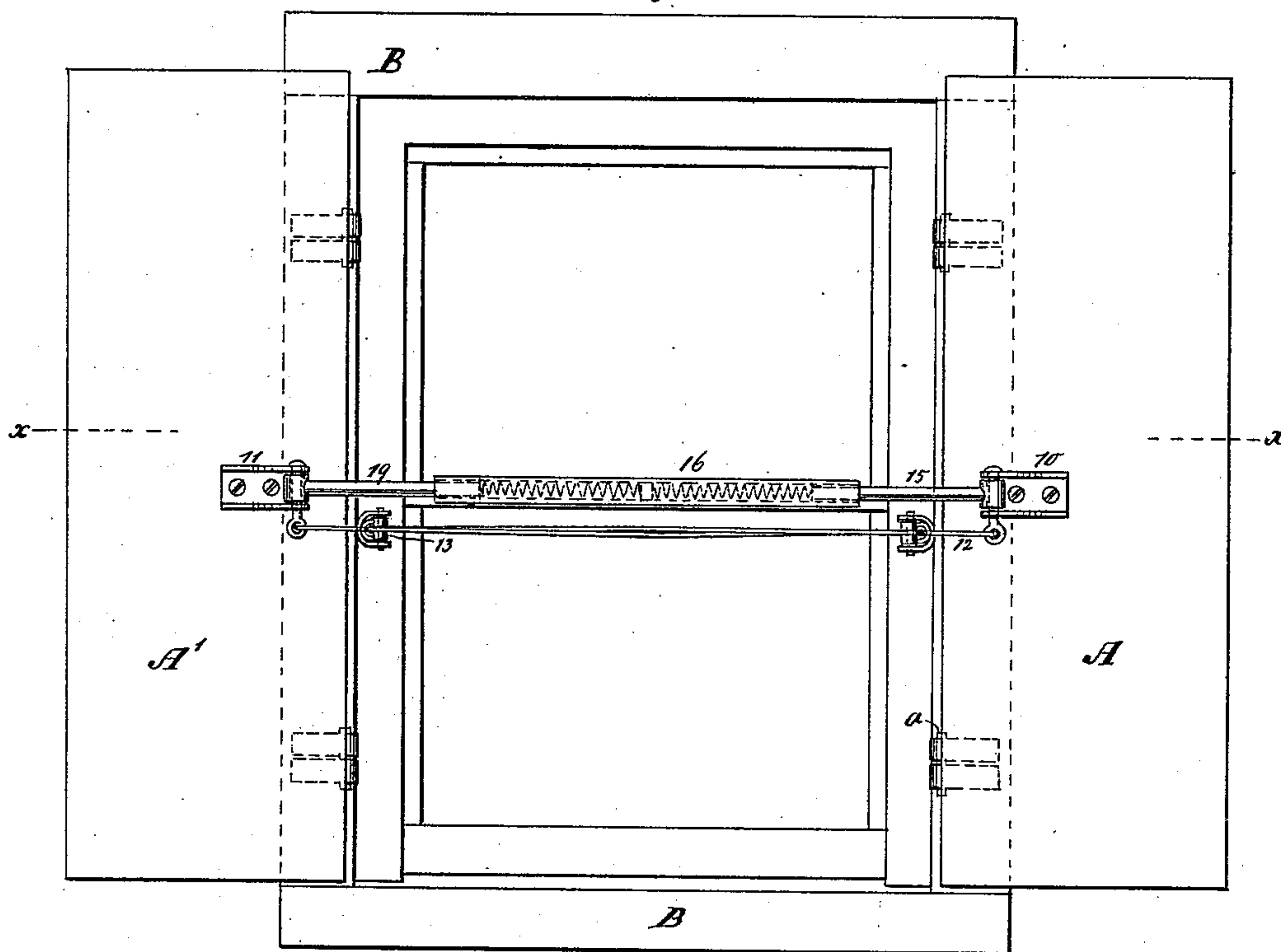
(No Model.)

J. H. PRESTON.  
SHUTTER WORKER.

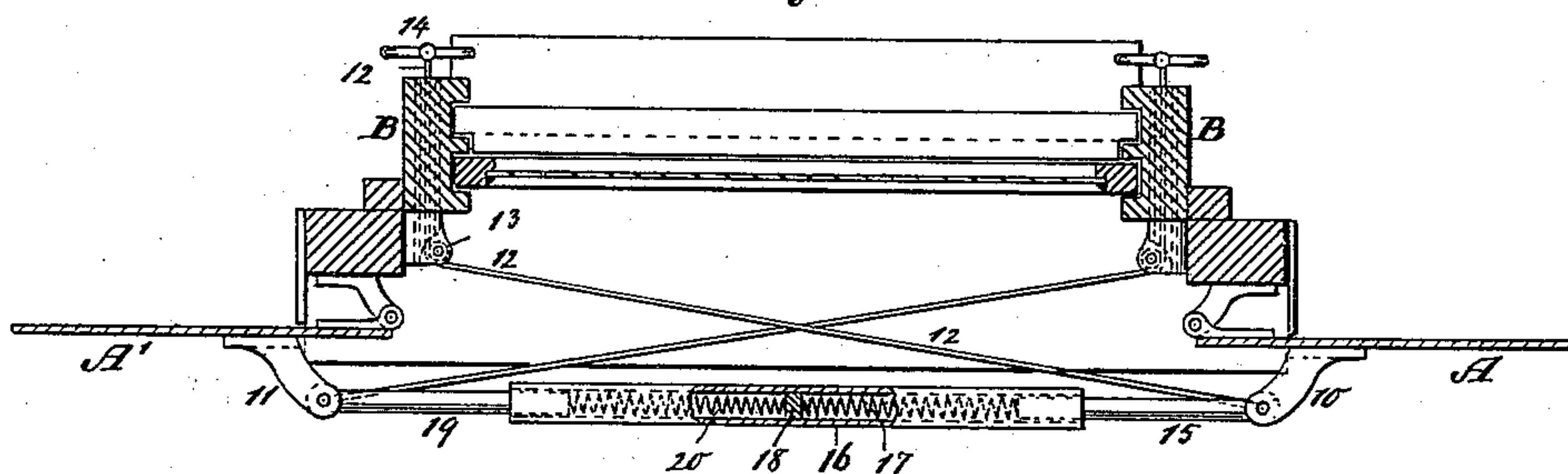
No. 538,180.

Patented Apr. 23, 1895.

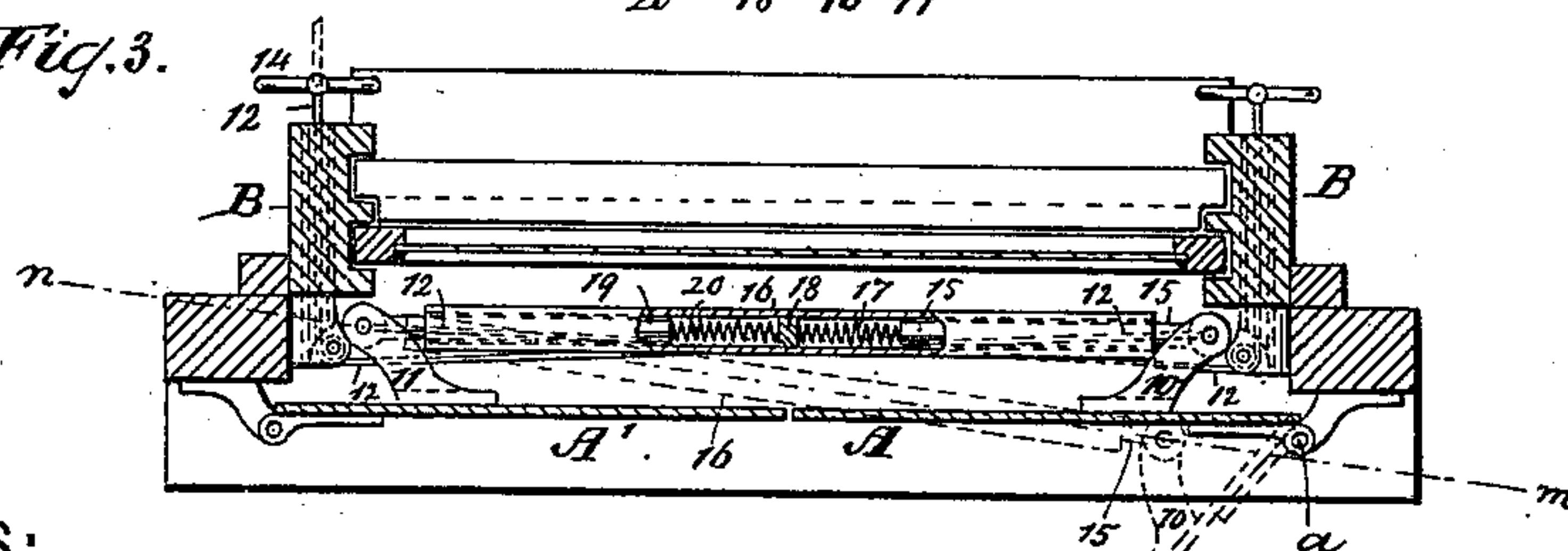
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



**WITNESSES:**

E. Wolff.

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**INVENTOR:**

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BY

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# UNITED STATES PATENT OFFICE.

JOHN H. PRESTON, OF BROOKLYN, NEW YORK.

## SHUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 538,180, dated April 23, 1895.

Application filed August 4, 1894. Serial No. 519,492. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. PRESTON, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Shutter-Workers, of which the following is a specification.

The object of this invention is a shutter worker which is so constructed that the shutter can be conveniently opened or closed from the interior of the building and that said shutter is automatically retained in its open and also in its closed position.

The peculiar and novel construction of my shutter worker is pointed out in the following specification and claims and illustrated in the accompanying drawings, in which—

Figure 1 represents an outside view of a window provided with my shutter worker when the shutters are open. Fig. 2 is a horizontal section in the plane  $x x$  Fig. 1, showing both shutters open. Fig. 3 is a similar section showing both shutters closed in full lines and one shutter in dotted lines partly open.

In the example illustrated by the drawings the window is provided with two shutters which open in opposite directions and I will proceed to describe the same but it must be remarked that my invention is applicable to a window with a single shutter.

In the example shown in the drawings each of the shutters  $A A'$  is provided with a bracket 10, 11 respectively. From the bracket 10 extends a cord 12 under a pulley 13 and through the window frame  $B$  to the interior of the room where it is connected to a handle 14. To the bracket 10 is pivoted a bar 15 which extends into a tube 16 and is exposed to the action of a spring 17 which bears against a partition 18 in the middle of the tube 16. To the bracket 11 of the shutter  $A'$  is pivoted a bar 19 which extends into the tube 16 and is exposed to the action of a spring 20.

When both shutters are closed, (Fig. 3) the springs 17 and 20 have a tendency to force the bars 15, 19 outward and by their action on the brackets 10 and 11 the shutters are retained in their closed position.

If the cord 12 is drawn slowly inward, the shutter  $A$  can be partially opened but in order to throw the shutter wide open, the cord 12 must be pulled inward with a sudden jerk and immediately released. By this sudden

jerk sufficient momentum is imparted to the shutter to carry the same to the position shown in dotted lines in Fig. 3. When the shutter has reached this position, the spring 17 in the tube 16 acts upon the pivot, supported by the bracket 10 in the direction of the stroke and dot line  $n m$  and since this line is situated on the outside of the pivot  $a$  of the shutter  $A$ , this shutter will be thrown open by the force of the spring 17 and retained in its open position.

When both shutters  $A A'$  are opened as shown in Figs. 1 and 2, they are retained in position by the springs 17 and 20.

In order to close the shutter  $A$  (Fig. 2) the cord 12 is drawn inward and as soon as the pivot  $a$  of the shutter has passed inward a sufficient distance, the shutter is closed by the action of the spring 17 and retained in its closed position.

If the window has only a single shutter, the bracket 11 which in the example shown in the drawings is firmly secured to the shutter  $A'$ , will be secured to the window frame, but in either case the bracket 11 remains immovable and in a fixed position during the time the shutter  $A$  is opened or closed.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a shutter and its supporting frame, of a bracket projecting from the inner side of the shutter, a spring-actuated pusher suitably supported at one end and having its other end pivotally connected to the bracket which projects from the said shutter, and a cord extending from the said bracket to the interior of the building and serving to open and close the shutter, substantially as described.

2. The combination with the shutters  $A A'$ , of brackets 10, 11, secured to the inner sides of the shutters, bars 15 and 19 pivoted to said brackets, springs 17 and 20 operating to force apart said bars, and cords extending from the brackets 10 and 11 to the interior of the building, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN H. PRESTON.

Witnesses:

W. C. HAUFF,  
E. F. KASTENHUBER.