

W. SCHOFIELD.
Shutter-Bower.

No. 221,869.

Patented Nov. 18, 1879.

Fig. 1.

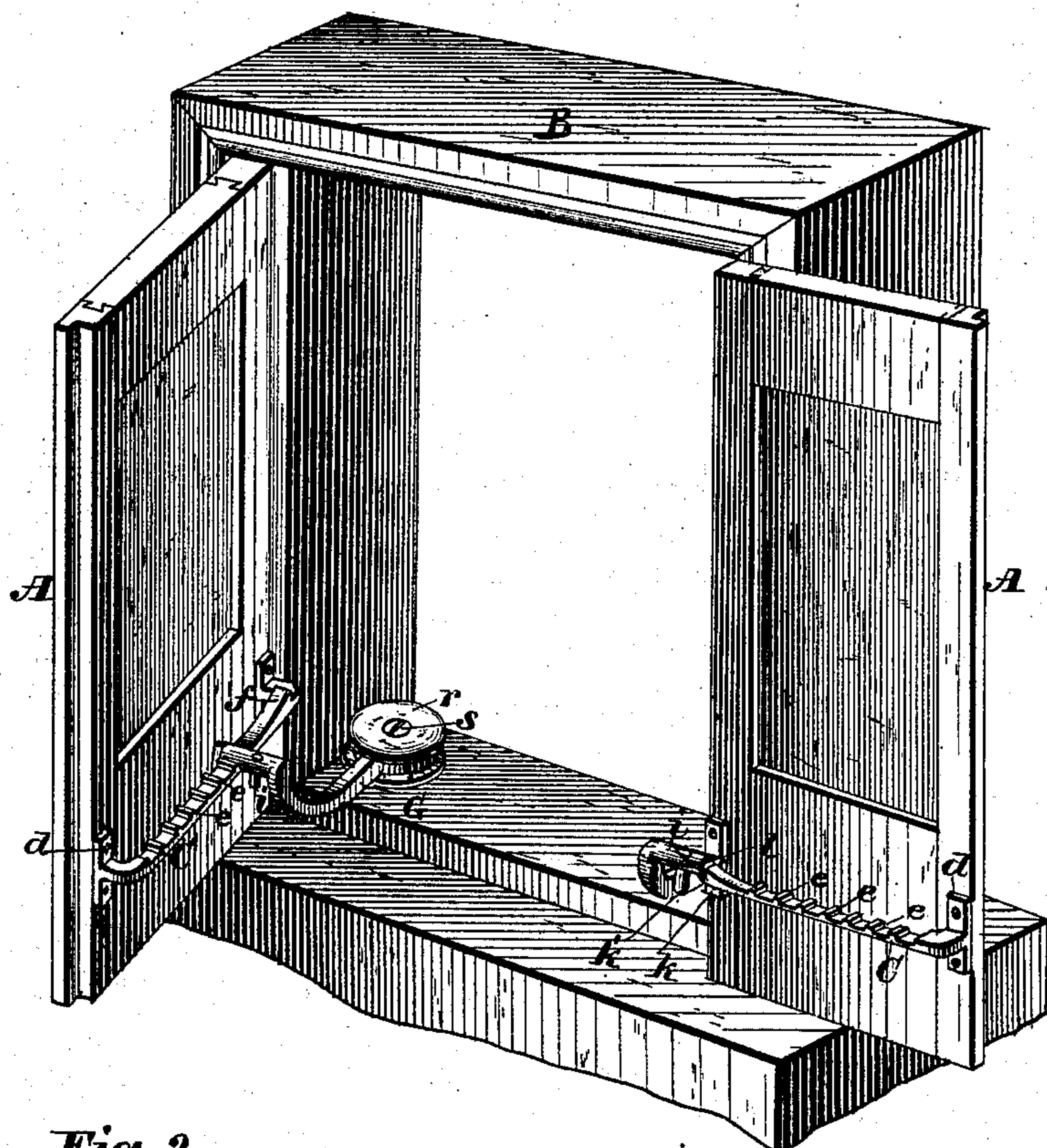


Fig. 2.

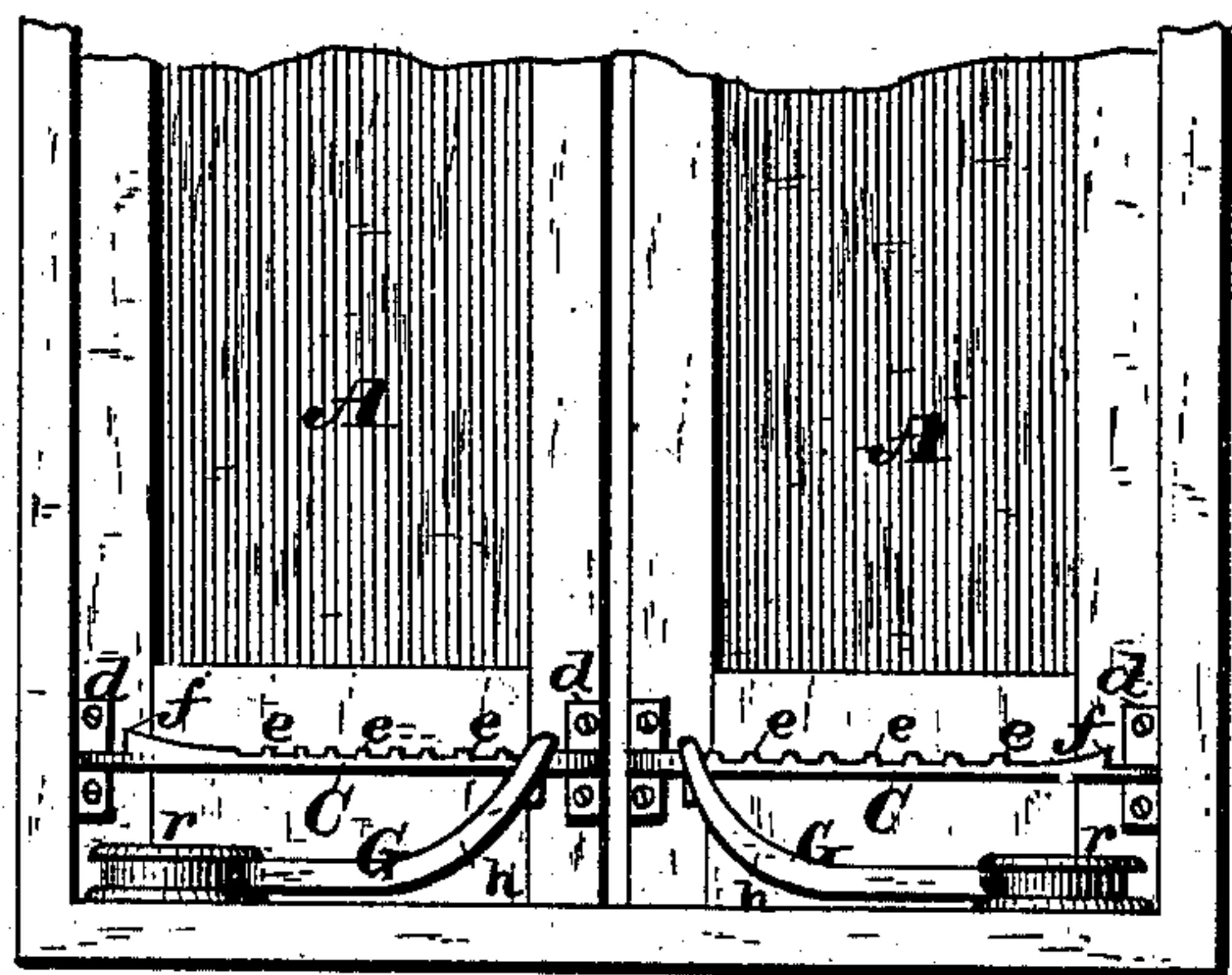
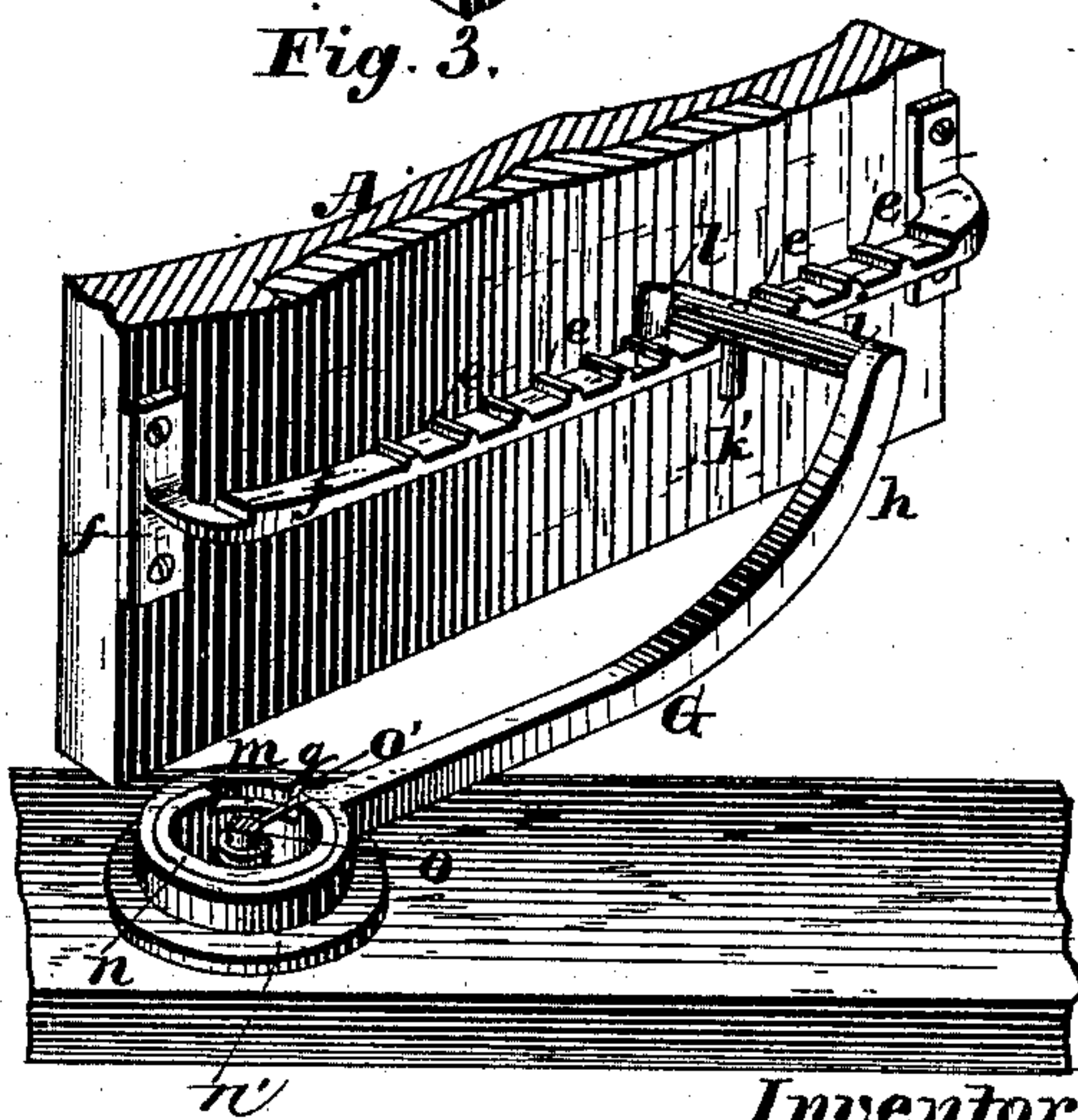


Fig. 3.



Attest:

J. Henry Kaiser.
Wm Beale Hale.

Inventor:

Wm Schofield.
By James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM SCHOFIELD, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN SHUTTER-BOWERS.

Specification forming part of Letters Patent No. **221,869**, dated November 18, 1879; application filed August 12, 1879.

To all whom it may concern:

Be it known that I, WILLIAM SCHOFIELD, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Shutter Workers and Holders, of which the following is a specification.

This invention relates to a combined shutter working and holding device; and its object is to simplify the construction of devices of this class, to facilitate the operation of shutters for opening, closing, and barring, and to secure a positive lock for the same in whatever position they may be placed.

This invention consists in the combination, with a swinging arm, having one end adapted for engagement with suitable stops on a shutter, and the other end terminating in an annular bearing, of a hollow pivot fitting within said bearing, and a spring arranged within said pivot, having one end fixed, and the other projecting through a recess in the pivot-wall, and engaging with the annular bearing, all of which will be more fully hereinafter described in detail.

In the accompanying drawings, Figure 1 is a perspective view, illustrating the application of my invention to, shutters. Fig. 2 is an inside view of the shutters closed and locked. Fig. 3 is a detail view, illustrating the construction of the working and locking arm.

The shutters A are hung to the window-frame B in the ordinary manner, and each is provided near its lower edge with a horizontal bar, C, supported at a little distance from its surface by plates *d*, which are connected to the inwardly-bent ends of the said bar. The bar has a length about equal to the width of the shutter; and its upper surface is provided with a series of studs or stops, *e*, about equal distances apart, extending from the swinging end of the bar to near its other end, where is formed a shoulder, *f*.

The letter G indicates two swinging arms, each having one end pivoted, in a manner to be hereinafter described, to the window-frame sill, said arms being arranged near the opposite ends of the sill, respectively. The swinging end *h* of each of these arms is bent upward and then outward, to form an arm, *i*, which is notched to form a shoulder, *l*, at the

inner side of which projects downwardly a stud or stop, *k*, a short distance inwardly from which is another stud, *k'*, projecting from said arm in the same direction.

The arm *i* rests upon the top of one of the horizontal bars C, which is fixed to the shutter and between two of the studs or stops of said bar, or the shoulder *l* stands behind the shoulder *f* thereof, as will presently be explained.

The stud or stop *k* extends downwardly between the arm C and the shutter, and the stud *k'* stands at the opposite side of said arm.

By taking hold of one of the arms G and raising it slightly, so that the arm *i* will become disengaged from the studs or stops *e*, and then pressing the arm G outwardly or drawing it inwardly, as the case may be, the studs *k* and *k'*, striking the opposite edges of the bar C, will cause the shutter to swing in either direction, as desired.

When the shutters are closed, the short arms *i* of the arms G rest between the two stops *e* at the outer ends of the series; and by the striking of said arms *i* against the inner stops the shutters are prevented from being opened.

By raising the arm G slightly, as before explained, the arms *i* may each be placed between any two of the stops, and the shutters thus firmly held bowed at any angle desired.

When the shutters are swung entirely open, and against the wall or a back stop, the arms G follow them, and the shoulders *l* of the arms *i* rest behind the shoulders *f*, as shown at the right-hand side of Fig. 1, and prevent the shutters from closing.

The pivot end of each of the arms G terminates in an annular bearing or ring, *m*, which fits upon a hollow pivot, *n*, standing on a base, *n'*, secured to the sill. Within the hollow pivot *n* is arranged a helical spring, *o*, the lower end of which is secured to the base, and the upper end of which is bent outward to form an arm, *o'*, which projects through a recess, *p*, cut in the upper edge of the wall of the pivot, and has its end fitted snugly and securely in a notch, *q*, in the upper edge of the annular bearing or ring *m*. When the cap *r* is placed upon the pivot it prevents the annular bearing from escaping therefrom; and

the screw *s*, which passes through the cap and the center of the base, also passes through the helical spring, and serves to maintain said spring in a proper position.

The annular bearing *m* fits loosely upon the pivot, and the latter extends a little above said bearing, in order to permit the outer end of arm *G* to be raised sufficiently for the lateral arm *i* to clear the stops *e* of the horizontal bar *C*. The arm *o'* of the spring *o*, however, holds the arm *G* down upon the bar *C* normally, and prevents it from becoming displaced when adjusted between any two stops or behind the shoulder *f*.

It will be observed, also, that when the arm *G* is swung outward its movement is against the tension of the spring *o*, which therefore at all times keeps the stud *k* pressed close to the edge of bar *C*, exercising a sufficient pressure to prevent rattling.

I do not limit myself to the precise construction of parts as illustrated in the drawings, as various obvious mechanical changes and sub-

stitutions may be made without departing from the principle of my invention, which may be applied to gates and doors as well as shutters.

What I claim is—

The combination, with the swinging arm *G*, having one end adapted for engagement with suitable stops on a shutter, and the other end terminating in the annular bearing *m*, of the hollow pivot fitting within said bearing, and a spring arranged within said pivot, having one end fixed and the other projecting through a recess in the pivot-wall, and engaging with said annular bearing, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

WILLIAM SCHOFIELD.

Witnesses:

JNO. T. ELSROAD,
JAMES N. SCHOFIELD.