

No. 817,712.

PATENTED APR. 10, 1906.

F. K. HEUPEL.
SASH FASTENER.
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Fig. 1.

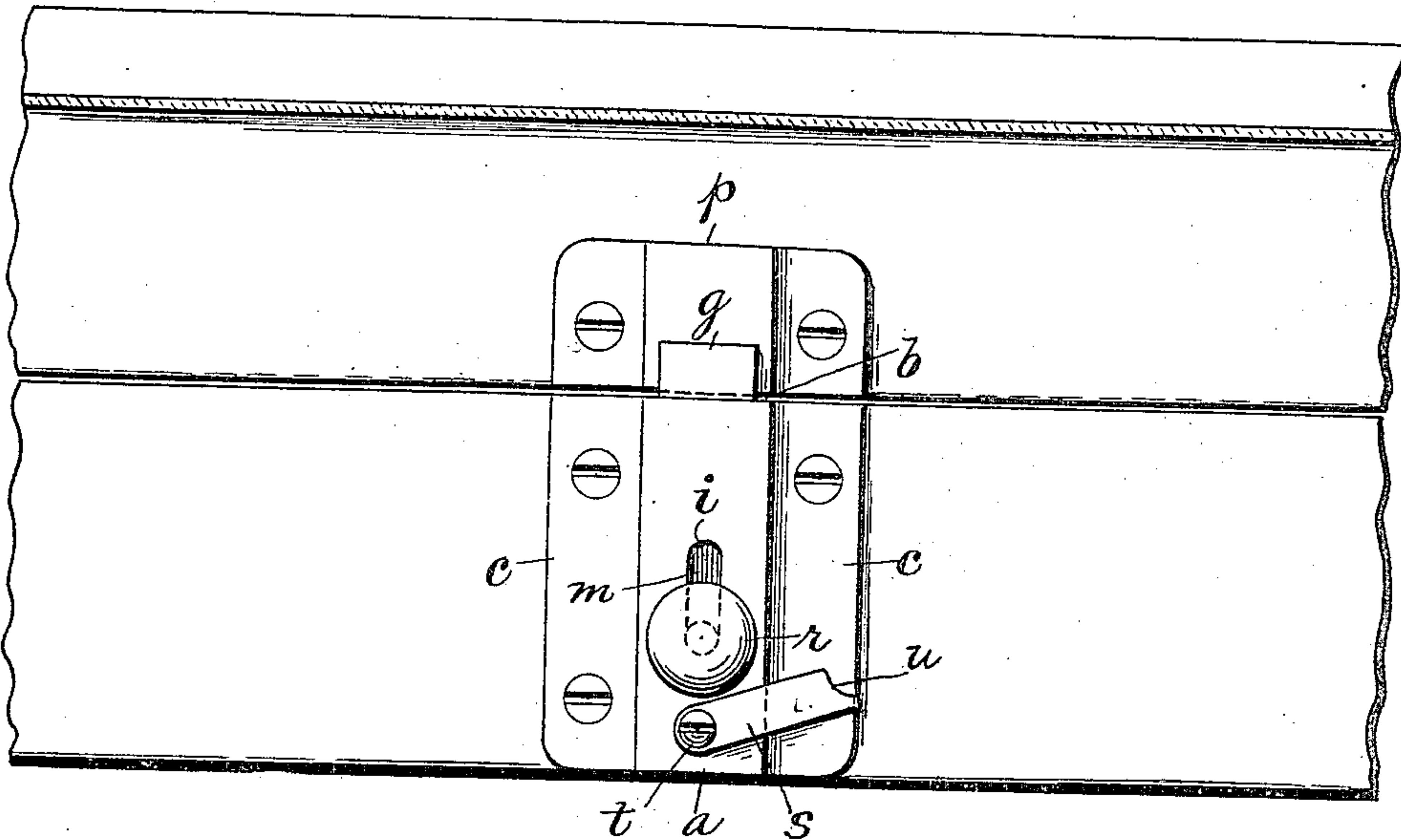


Fig. 2.

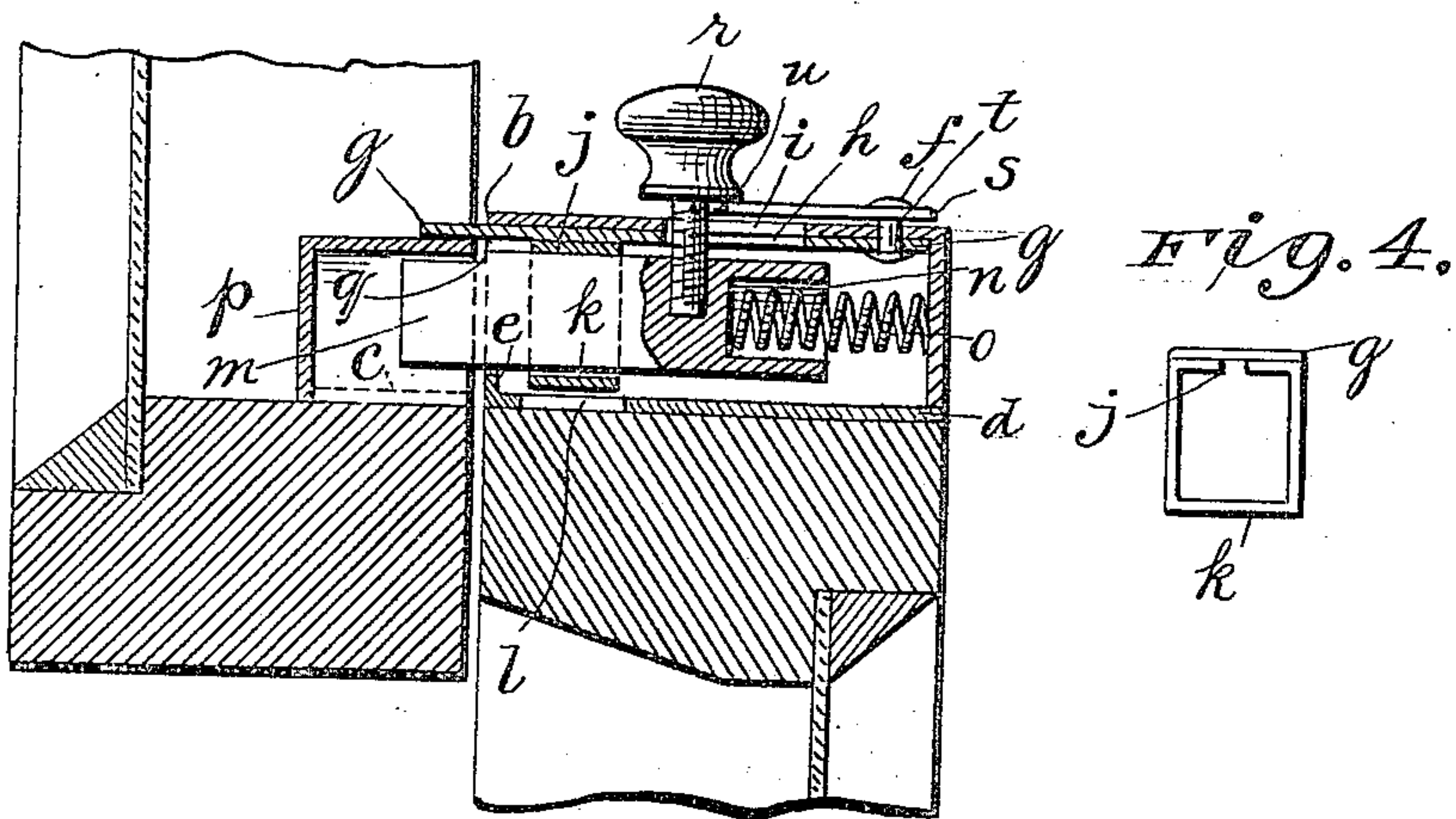
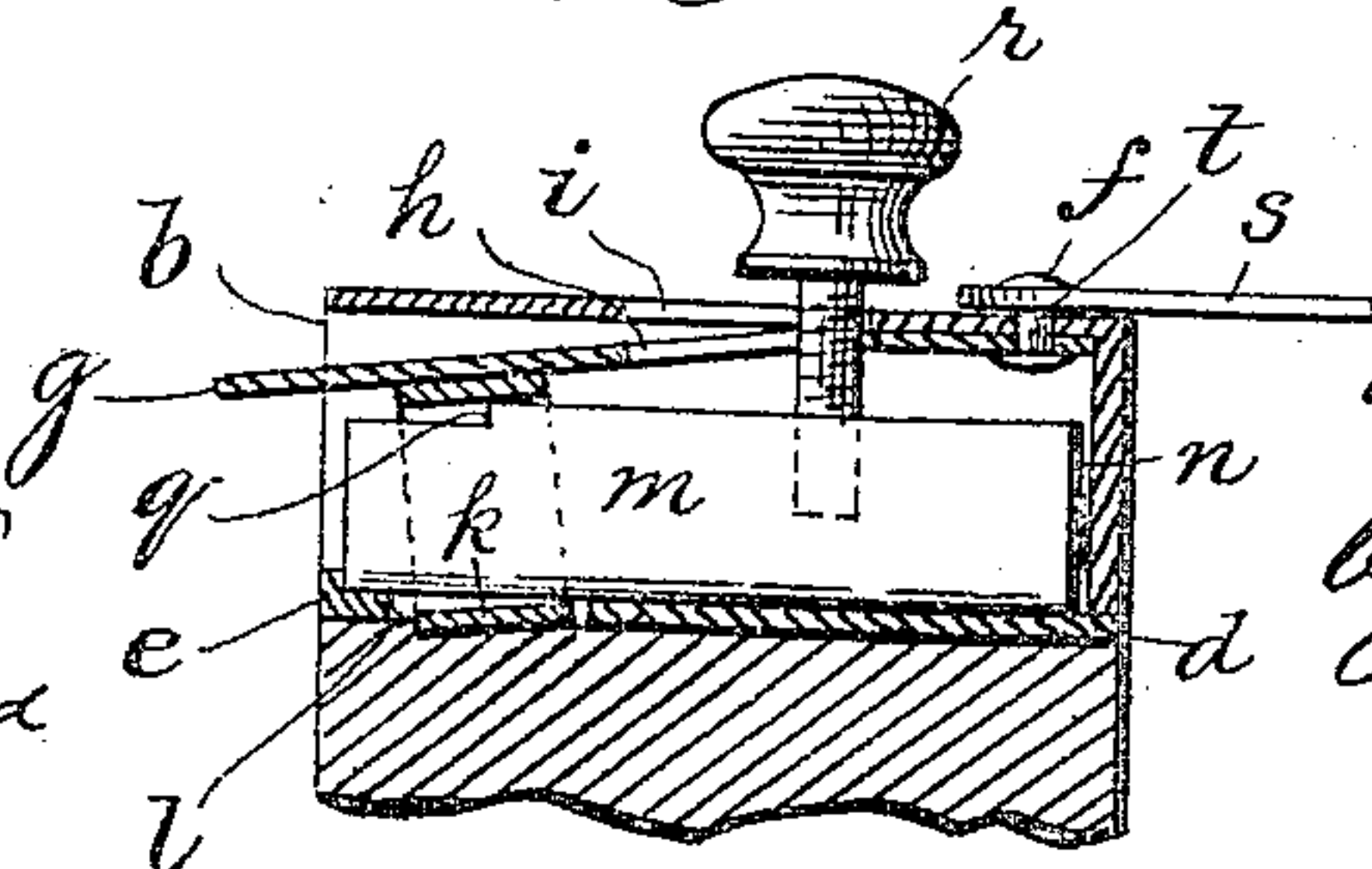


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE

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SASH-FASTENER.

No. 817,712.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FREDERICK K. HEUPEL, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification.

My invention relates to automatic fasteners for the meeting-rails of windows for doors or cupboards and for use in kindred situations generally; and its objects are to provide a fastener simple and strong and durable in construction that will become automatically locked upon closing the members together and when so locked will effectually hold the members together and prevent the window or other object from being opened except from the side on which the fastener is situated.

To these ends my invention consists of the combination and arrangement of the various parts having the general mode of operation substantially as hereinafter fully described in this specification and shown in the accompanying drawings, in which—

Figure 1 is a plan view of the device with the bolt retracted. Fig. 2 is a longitudinal sectional view with the bolt shot into position across the meeting-rails of a window. Fig. 3 is a longitudinal sectional view with the bolt retracted, and Fig. 4 a detail end view of the means for actuating the sliding bolt.

Referring to the drawings, *a* is a casing or receptacle, made of brass or other suitable material, having an open end *b* and flanges *c* at the bottom of the sides, which are secured in suitable manner to a flat bottom *d* of heavier material within the casing and having formed thereon a flange or shoulder *e* across the bottom of the open end *b* of said casing, for a purpose to be hereinafter specified. The flanges *c c* are adapted to be suitably secured to the top rail of the inner sash of a window, to a swinging door, or applied to a similar purpose.

Within the casing *a*, secured to its top by means of a rivet *f* or other suitable means, is a flat piece of steel or other suitable metal *g*, projecting beyond the casing out of its open end, adapted to act as a spring-trip for the release of the hereinafter-described bolt and having a longitudinal slot *h* coincident with a

similar slot *i* in the top of the casing *a*. A collar or sleeve *j* is suitably attached to the spring *g*, near the open end of the casing *a*, its sides lying adjacent the sides of the casing and its bottom *k* fitting into a slot *l* in the bottom piece *d* in such manner that the inner surfaces of the pieces *k* and *d* are in substantially the same plane.

Adapted to slide through the open end *b* of the casing *a*, within the casing and the sleeve *j* and below the spring-trip *g*, is a bolt *m*, of suitable shape and formed of brass or other metal, having a hole *n* bored in its inner end, adapted to receive a spiral spring *o* or other suitable automatically-actuating means. When this spring is in extended position, the bolt projects beyond the casing through its open end *b*, across the meeting-rails of a window or the crack between a door and its jamb, and under a suitable socket *p*, secured to the rail of the upper sash or to the door-jamb. To allow the bolt to slide under the top of the socket *p*, its end is cut away to a sufficient distance to allow free play when the bolt is shot. Suitable means consisting of a knob or handle *r*, passed through the slots *h* and *j* and screwed into the bolt or otherwise suitably connected, are provided for withdrawing the bolt and compressing the spring *o*, by means of which the forward end of the bolt is drawn behind the shoulder *e*, and thus held in position.

In operation in closing the window or door the projecting end of the spring-trip *g* strikes the top of the socket *p*, which causes the said spring-trip to yield, and thus raise the bottom *k* of the sleeve *j*, which in turn raises the bolt *m* above the level of the top of the flange or shoulder *e*, thus releasing the pressure on the spring *o*, which drives the bolt across the meeting-rails, the crack between the door and jamb, and under the socket *p*, where the bolt is firmly held by the tension of the spring *o*, and the window or door is thus automatically locked. To unlock the device, so that the window or door may be opened, the bolt is redrawn into engagement with the shoulder *e* by means of the knob *r*.

In order to provide means to securely lock the bolt in place independently of the pressure of the coiled spring behind the bolt, I preferably provide a pivoted pawl or stop-plate *s*, which is pivoted at *t* to the casing of

the lock and is provided with a curved recess *u* at its free end which is adapted to be swung into engagement with the knob of the bolt, so as to prevent the retraction of the knob and bolt. This pivoted stop-plate thus provides means that will insure against the opening of the lock by tampering with the bolt at the projecting end thereof by the insertion of any instrument designed to force the bolt backward.

Obviously my invention may be used in widely-varying forms, and some features of my invention may be used without others.

Therefore without limiting myself to the construction shown and described nor enumerating equivalents, I claim, and desire to obtain by Letters Patent, the following:

1. In an automatic fastener, a casing, a slide-bolt within the casing, a spring for actuating said bolt, means at the forward end of said casing for retaining said bolt within said casing, and a trip consisting of a flat spring above said bolt and provided with a depending sleeve for releasing said bolt from engagement with said retaining means, substantially as described.

2. In an automatic sash-fastener, a casing, a slide-bolt within the casing, a spring for actuating said bolt, a flange across the forward end of said casing for retaining said bolt within said casing, and a spring-trip for releasing said bolt from engagement with said retaining-flange, substantially as described.

3. In an automatic sash-fastener, a casing, a slide-bolt within said casing, a spring for actuating said bolt, a flange across the forward end of said casing for retaining said bolt with-

in said casing, and a trip consisting of a flat spring above said bolt and having a sleeve depending therefrom through which said bolt slides whereby when the window is closed said bolt is raised above said retaining-flange and released from engagement therewith, substantially as described.

4. In an automatic sash-fastener, a casing, a bottom therefor, a sliding bolt within said casing, a spring for actuating said bolt, a flange on the forward end of said casing and integral with said bottom for retaining said bolt within said casing, a knob for retracting said bolt to such position, a trip secured to the under side of the top of said casing consisting of a sleeve surrounding said bolt and a flat spring projecting beyond the end of said casing to which said sleeve is secured, and a socket adapted to engage said projecting spring when the window is lowered whereby the bolt is released from engagement with said retaining-flange and engages with said socket, substantially as described.

5. In a lock, in combination with a sliding bolt, an automatic spring-trip therefor, a knob secured to said bolt and a swinging stop-plate adapted to engage said knob to prevent the retraction of the bolt, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK K. HEUPEL.

Witnesses:

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JOS. H. BLACKWOOD.