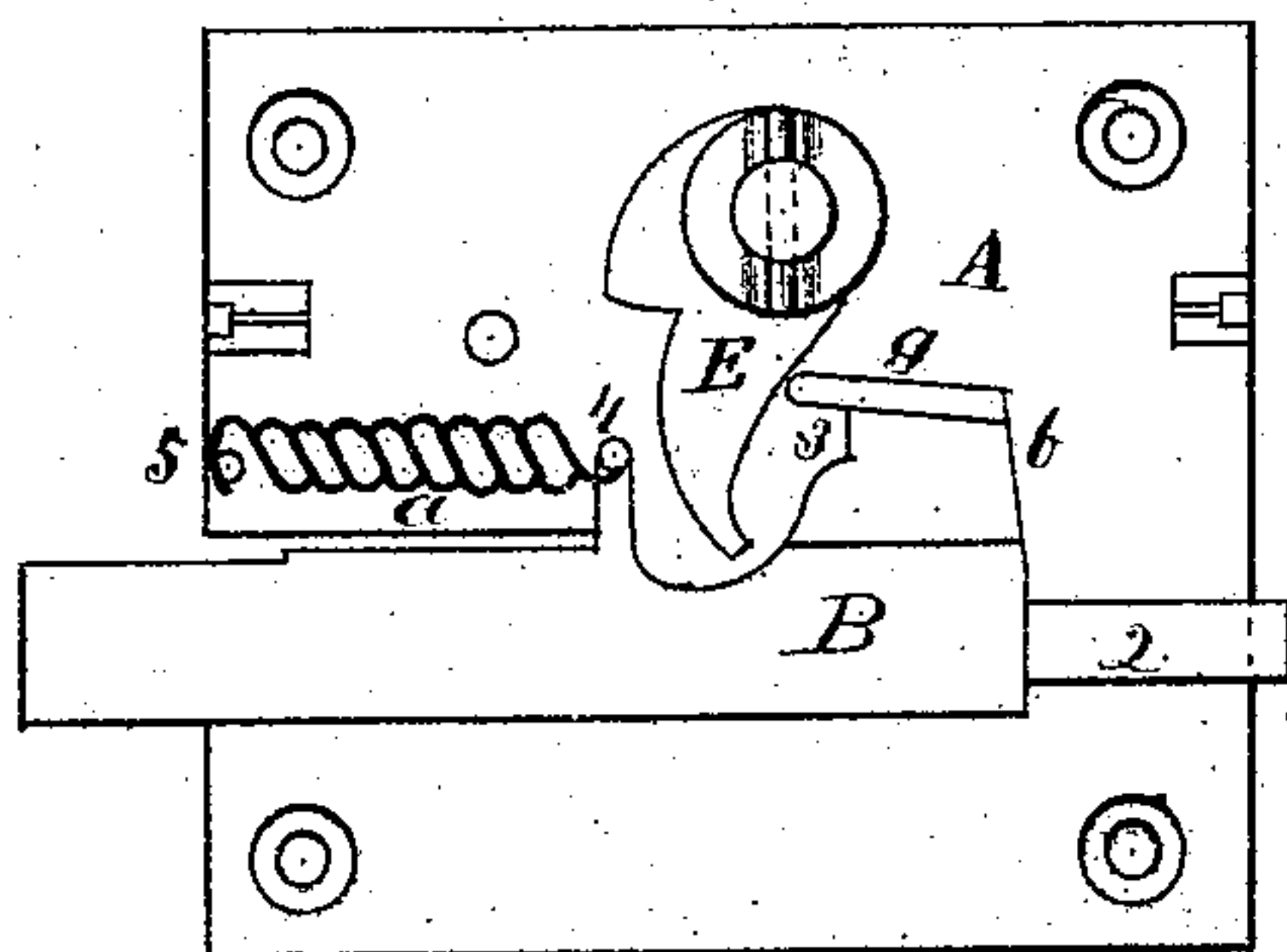


J. OTTNER.  
Knob-Latches.

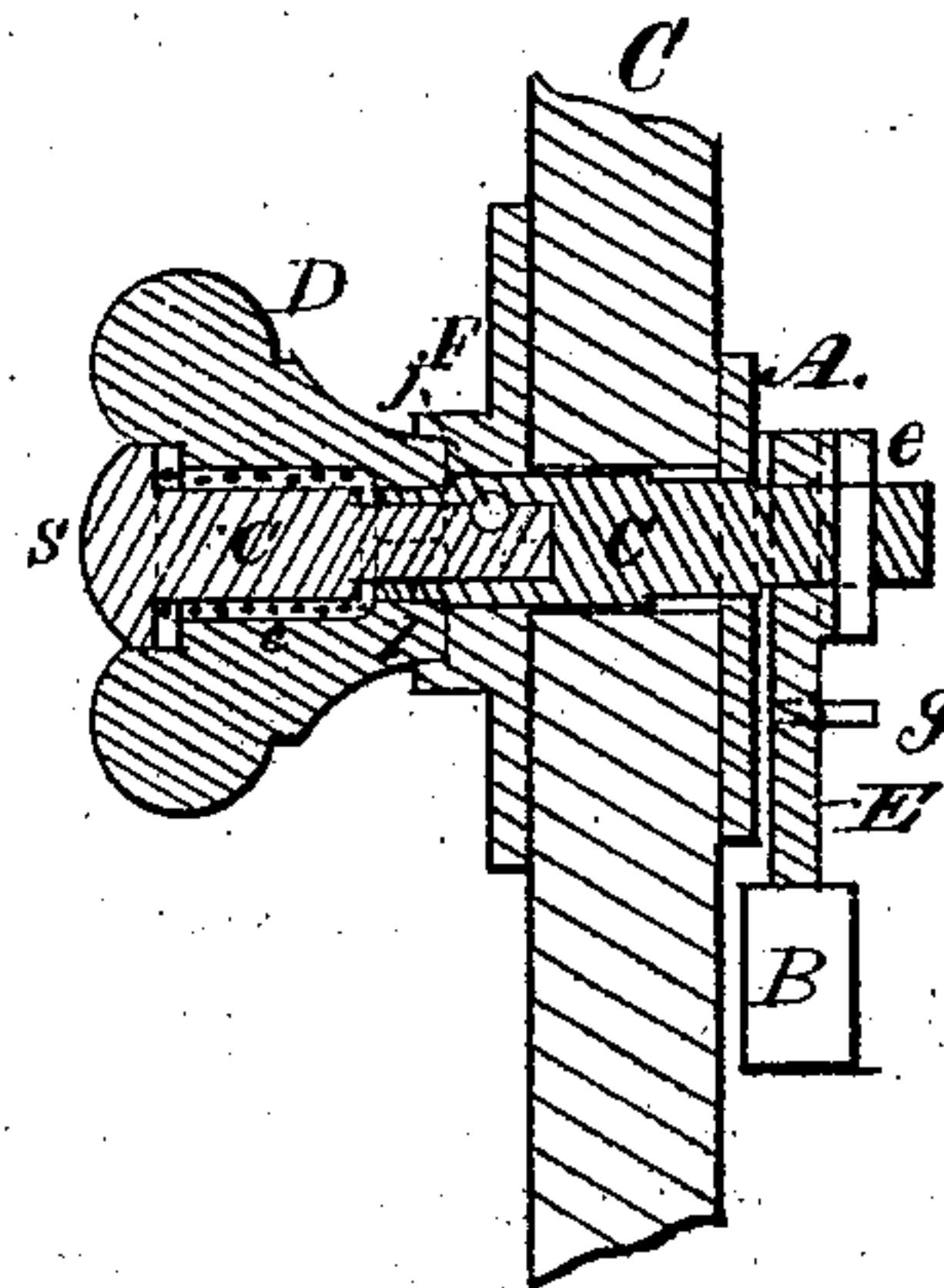
No. 153,455.

Patented July 28, 1874.

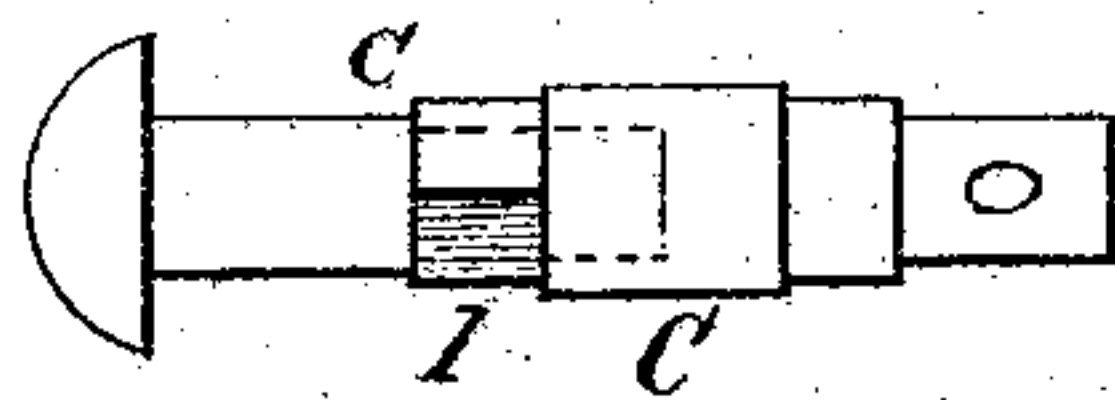
*Fig. 1.*



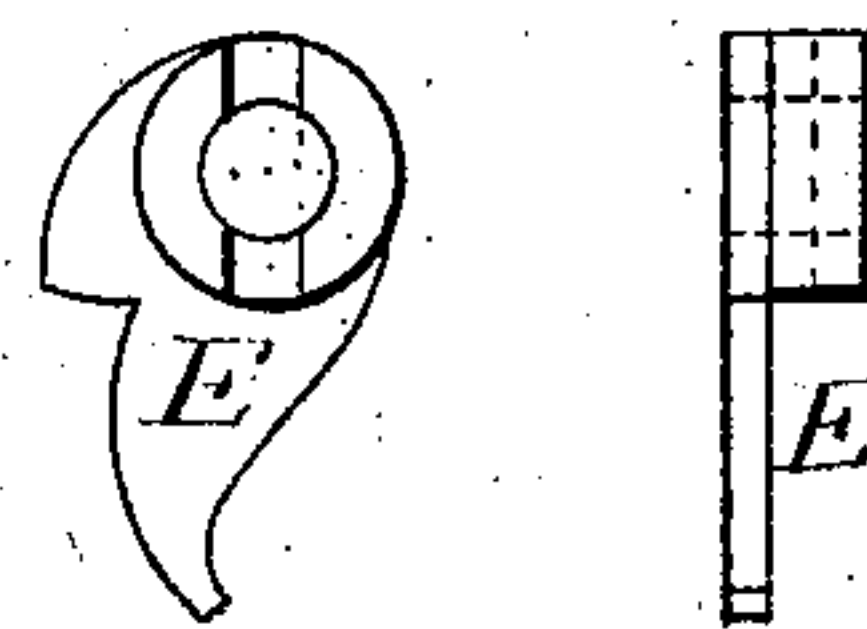
*Fig. 2.*



*Fig. 3.*



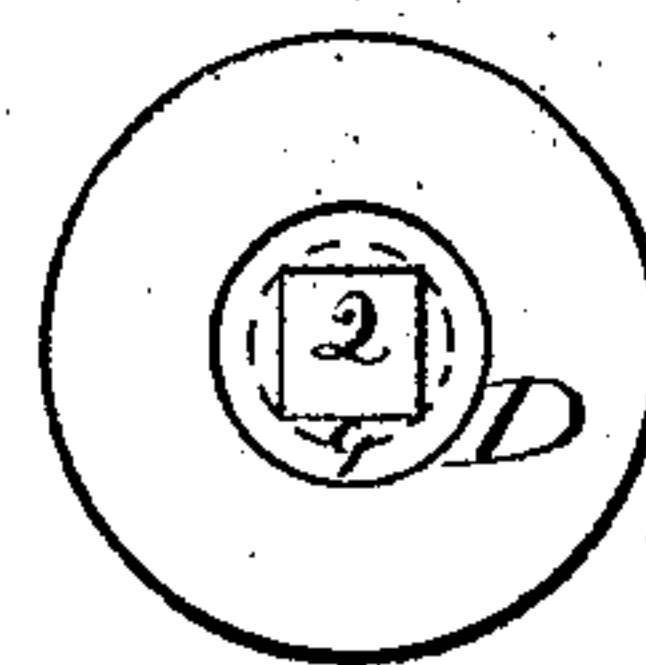
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



Witnesses:  
Laura Hubben  
Askaats

Inventor.  
Joseph Ottner  
by Askaats att

# UNITED STATES PATENT OFFICE.

JOSEPH OTTNER, OF NEW BRITAIN, ASSIGNOR TO RUDOLPH KOST AND  
CHRISTIAN REBSTOCK, OF BRIDGEPORT, CONNECTICUT.

## IMPROVEMENT IN KNOB-LATCHES.

Specification forming part of Letters Patent No. **153,455**, dated July 28, 1874; application filed  
June 29, 1872.

*To all whom it may concern:*

Be it known that I, JOSEPH OTTNER, of New Britain, county of Hartford, State of Connecticut, have invented an Improved Automatic Cupboard-Latch, of which the following is a specification:

My invention relates to that class of latches in which the spring-bolt of the latch is drawn back, and held in unlock at will through the medium of a knob affixed to the latch, and let off unlocked by end pressure on the spindle; and consists in attaching to the bolt of the lock a stud or projection, against which a cam-shaped lever attached to the spindle of the lock operates for throwing back the bolt from the position of lock to that of unlock, and the holding of it in that position till it is relieved by an end pressure on the spindle.

In the drawing, Figure 1 shows the latch with a part of the case removed; Fig. 2, longitudinal section through the spindle; Fig. 3, detail view of the spindle; Fig. 4, front and side view of the lever; Fig. 5, top view of bolt; Fig. 6, end view of the knob.

A is the back plate; B, the bolt; C, the spindle; D, the knob; E, the lever; F, the rose-plate; *a*, the spring for operating the bolt B; *b*, the projection on the bolt, against which the lever acts; *c*, the spring for operating the spindle longitudinally; 1, the square portion of the spindle; *e*, the pin for securing the lever to the spindle; *f*, the pin for securing the two parts of the spindle together.

The back plate A and case are nearly the same in form as those of the common latch. The bolt B is re-enforced at *h*, to make up for the thickness of that part of the back plate A which is cut away to guide the back end of the bolt O round that end, and a hole is prepared through the flange of the case for it. On the upper side of the bolt B the projection *b* is formed. This projection is about one-third the thickness of the bolt B, and has on its upper edge a flange, *g*, of the same width as the thickness of the bolt B. The projection B is formed so that the lever E will bear against it, and carry back the bolt B; and, when the end of the lever arrives at the point 3, it will stand in that position, and

hold the bolt back. The coil-spring *a* is attached to the hook 4 on the bolt, and pin 5 on the back plate, and serves to throw the bolt outward. The flange *g* serves to carry back the lever E to its proper position when the bolt is thrown outward.

The spindle C is made in two parts, held together by the pin *j*. The central portion of the spindle, being round and enlarged, has a nicely-fitting bearing in the rose-plate. To limit the inward longitudinal movement of the spindle a shoulder is formed on it that abuts against the back plate A. The length of this movement is governed by the thickness of the projection *b*.

When throwing back the bolt the lever E acts on the edge of the projection *b*, and, consequently, the outer face of the lever bears against the back plate A. To release the bolt the lever E is forced out of the recess 3, and beyond the projection *b*, by pressing on the outer end of the spindle C, when the bolt springs outward and locks.

The pin *e* secures the lever on the spindle C, and prevents it turning on the same. On the outer end of the inner portion of the two-part spindle C, I form a square, 1, and drill endwise into the spindle at this end, to receive the outer part of the spindle, the two parts being held together by the pin *j*, as shown in Fig. 2.

The knob D has its center drilled out round nearly its whole length, the remaining portion being made square, so as to fit the square 1 of the spindle C, for turning the same.

A head, S, is formed upon the outer end of the spindle, which serves as a bearing for the coil-spring *c*, a recess deep and large enough to receive this head S being drilled into the face of the knob D. The spring *c* serves to throw the spindle outward when the latter is pressed in to release the lever E from the projection *b*.

The operation is as follows: Supposing the door is closed and the bolt out, I turn the knob D till the bolt is drawn back and the lever enters into the recess 3. I can then open the door, and the bolt will remain back till I press on the round head S of the spindle. This forces the lever beyond the projection *b*, and



the spring *a* then throws the bolt outward, locking the door. The flange *g*, operating on the lever *E*, carries that back to its place, and the spring *c* brings the said lever in connection with the projection *b* again.

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

The combination of the projection *b* and flange *g* on bolt *B* with the lever *E*, spin-

dle *C*, and spring *c*, substantially as described, and for the purpose specified.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

JOSEPH OTTNER.

Witnesses:

A. SKAATS,

LAURA A. HUBBELL.