

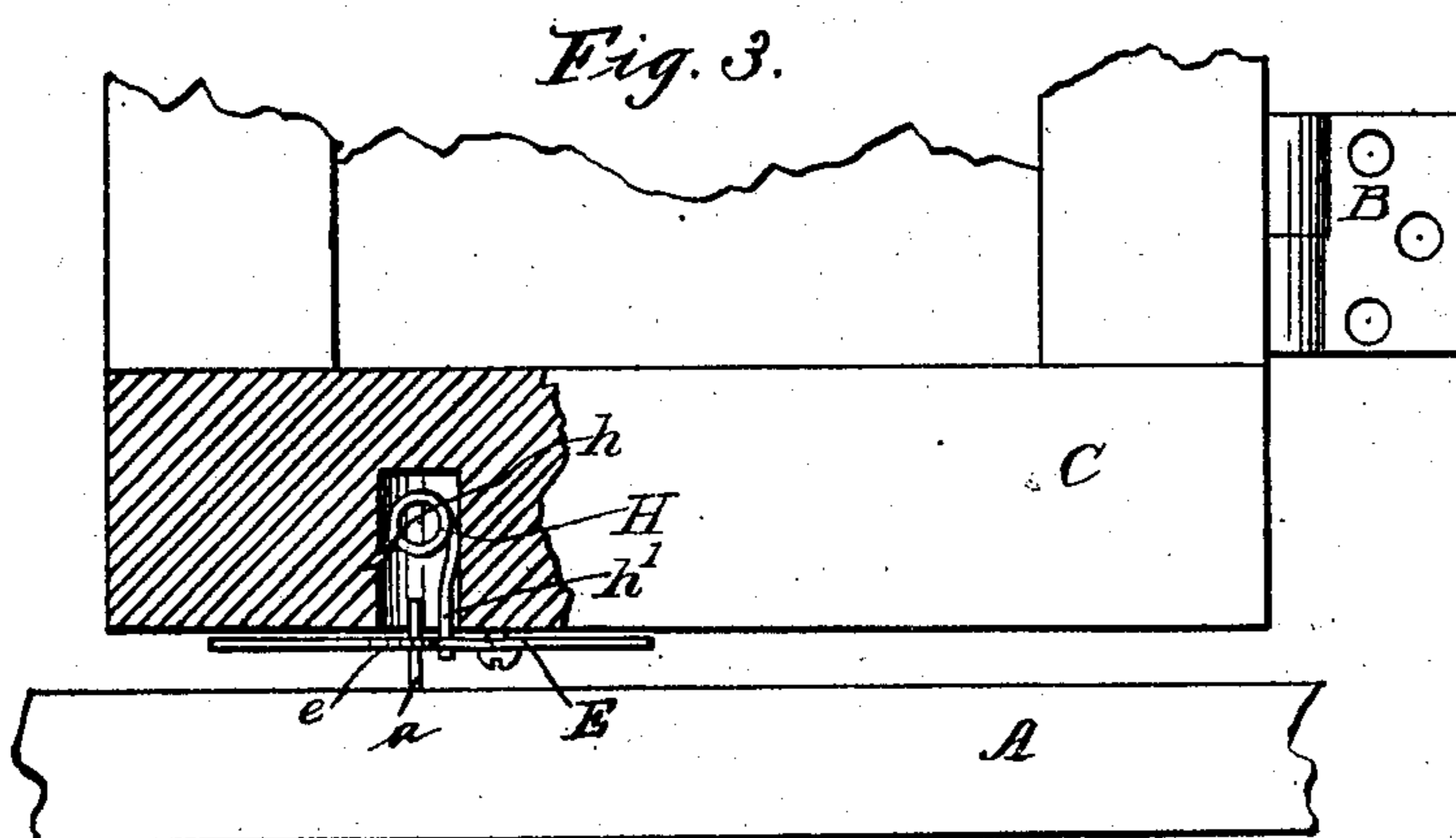
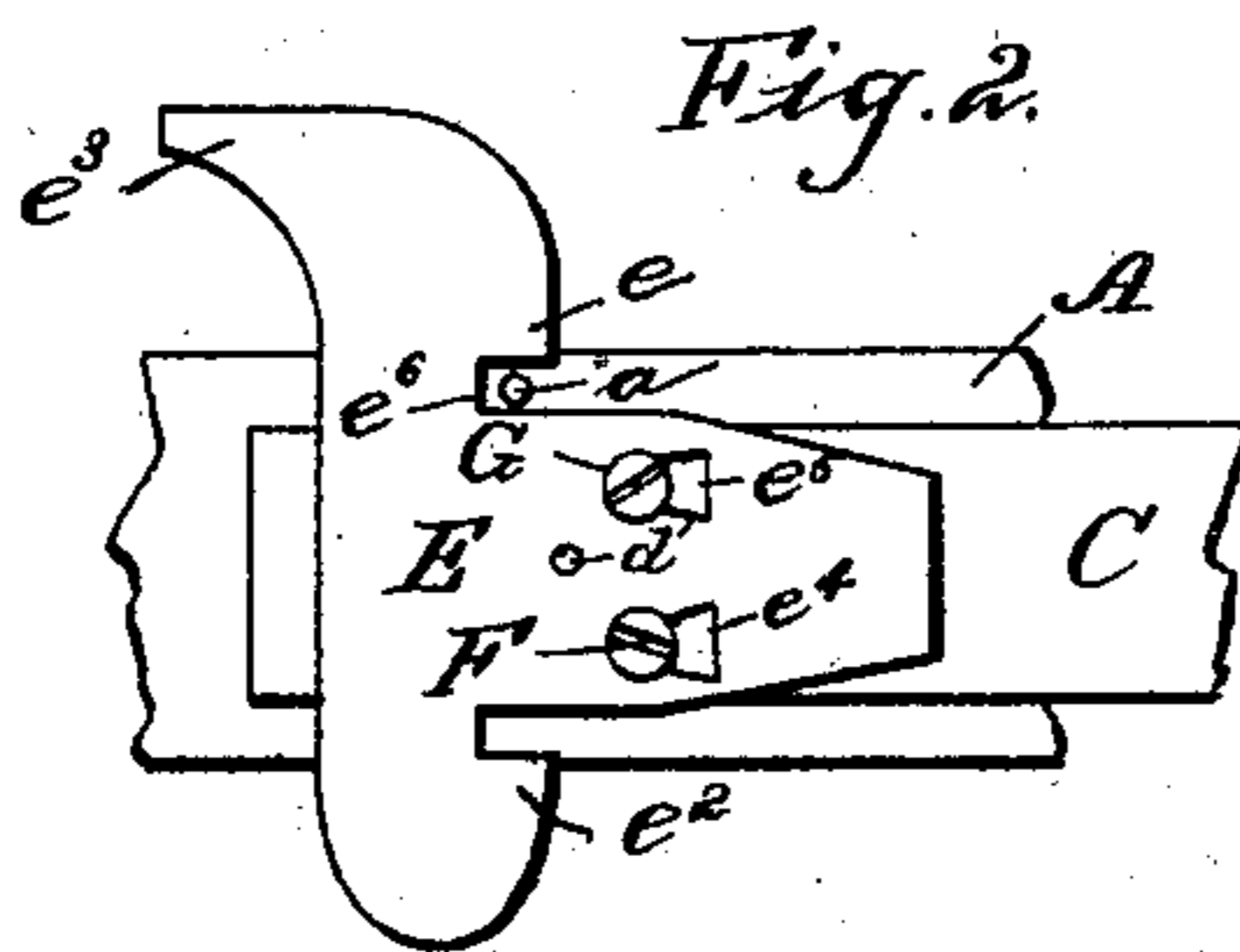
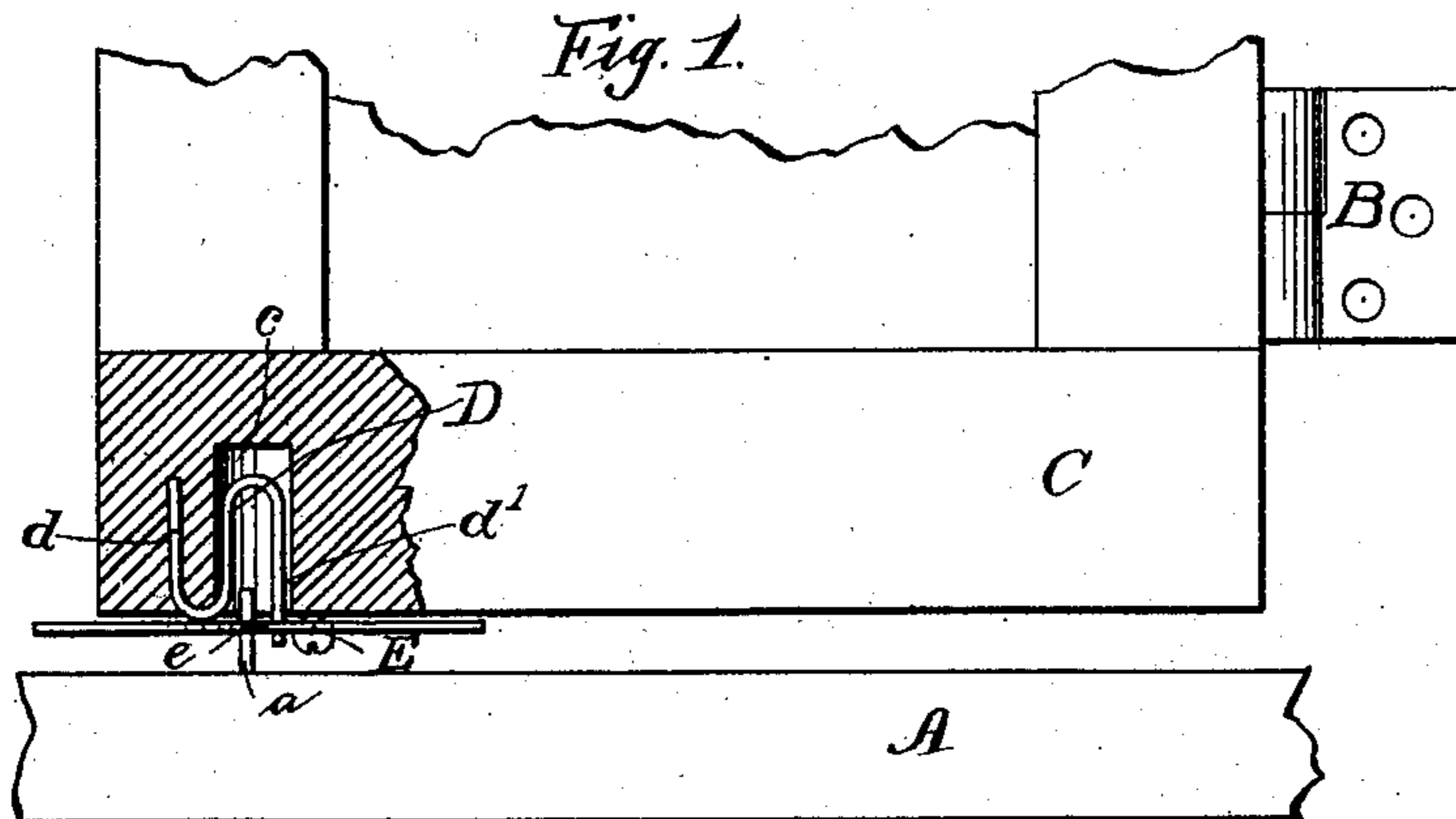
No. 720,459.

PATENTED FEB. 10, 1903.

E. F. McINTIRE.  
SHUTTER FASTENER.

APPLICATION FILED JAN. 22, 1902. RENEWED DEC. 4, 1902.

NO MODEL.



Witnesses

R. F. Storm.

William B. Thomas

Inventor

Edward F McIntire

Edwin Guthrie

Attorney

# UNITED STATES PATENT OFFICE.

EDWARD FRAUNCIS MCINTIRE, OF SALEM, MASSACHUSETTS.

## SHUTTER-FASTENER.

SPECIFICATION forming part of Letters Patent No. 720,459, dated February 10, 1903.

Application filed January 22, 1902. Renewed December 4, 1902. Serial No. 133,927. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD FRAUNCIS MCINTIRE, a citizen of the United States, residing at Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Shutter-Fasteners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to shutter-fasteners; and its object is to produce a double-hook fastener capable of securing the window-shutters either opened or closed by engagement with properly-situated pins or other devices adapted to catch the hooks, the hooks being the end portions of a single plate yieldingly held against suitable stops or limiting devices by a spring, the stops constituting, alternately, the pivots upon and about which the hook-plate turns.

Another object of my invention is to construct a shutter-fastener of the character stated consisting of the fewest practicable number of parts and having special reference to cheapness of manufacture.

Each constituent element of my invention is described in detail and its individual office, together with the mode of operation of the whole, fully explained hereinbelow.

In the accompanying drawings, throughout which like letters are introduced to refer to like parts, Figure 1 is a side view with the bottom rail of the shutter partly in longitudinal vertical section to exhibit the form and position of the sole spring which acts upon the hook-plate. Fig. 2 represents a plan view of the hook-plate, taken from below, and shows the contour of the hook-plate, the position of the penetrating end of the spring, the screw-stops, retaining and limiting devices against which the plate reacts under pressure of the spring, and the slots through the plate engaging the screw-stops. Fig. 3 represents a side view of a modification of my invention, the bottom rail of the shutter being shown partly in section, as before, to clear the view of the spring. This modifica-

tion relates to the spring element and its arrangement with respect to the other parts, which remain unchanged.

Considering the drawings, letter A marks a window-sill, and projecting upwardly therefrom, usually near the middle, is a pin *a* or any like catch adapted to engage the hook when the shutter is closed. The shutter swings upon a hinge B. The bottom rail of the shutter is marked C. As illustrated, a hole *c* is bored near the outer end of the rail, and in this hole lies one bend and one leg of the S-shaped spring D. The remaining leg of the spring (designated by letter *d*) is driven into the wood of the rail and serves to hold the spring in its position. It will be observed that the leg of the spring (marked *d'*) projects from the hole *c* and passes through the hook-plate E. In Fig. 2 an advantageous form of the hook-plate is drawn. The hook *e* engages the pin projecting from the sill when the shutter is closed, and it will be understood that when the shutter is opened the opposite end—hook *e*<sup>2</sup>—is caught by a suitably-situated pin or catch projecting from the wall of the building. End hook *e* possesses an addition or finger-hold *e*<sup>3</sup>, which may be grasped to release the hook *e*<sup>2</sup> from the wall pin or hook when the blind is open and the hook *e* extends outwardly. To release the hooks when the shutter is either open or shut, the hook *e* is pulled or pressed horizontally parallel with the rail of the shutter. The hook-plate turns upon the screw-stops F and G alternately. It is believed to be within the scope of my invention to introduce other yet equivalent means in place of screws F and G to retain the plate in its place and to limit its movements.

In operation when the shutter is closed and end hook *e* is pressed horizontally parallel with the rail C the hook-plate turns upon the screw-stop F, which passes through the slot *e*<sup>4</sup> in the hook-plate. When the hook *e* is drawn horizontally parallel with rail C to release the hook *e*<sup>2</sup> when the shutter is open, the hook-plate turns upon the screw-stop G, which passes through the slot *e*<sup>5</sup> in the plate. The leg *d'* of spring D is normally under tension and presses the plate against the screw-stops within the slots. The stops therefore limit the movements of the plate. The heads

of the screws also retain the plate in position against the under side of rail C and prevent its displacement by the pressure of the spring.

As the shutter is closed the curving edge of hook *e* glides upon the pin *a*, the spring yielding until the notch *e'* is reached and snaps into engagement with the pin. The elements and arrangement of them described comprise an exceedingly simple and effective means for holding window-blinds open or closed against the usual force of wind, while permitting them to be most easily operated by hand.

Fig. 3 represents a modification of my invention so far as concerns the spring element. I have found that under certain circumstances a stronger spring effect than that given by the **S**-shaped spring is advantageous, and I provide the desired additional resiliency by employing the spring **H**. (Shown in the figure as having one or more flat coils.) The operation of this spring is practically the same as before and its office is identical with that of the **S**-shaped spring. One leg *h* of the coil-spring **H** is forced into the wood of the rail C of the shutter, and the remaining leg *h'* passes through the hook-plate, holding it under tension against the stops, as explained above.

Having thus described my invention, what I claim, and seek to secure by Letters Patent of the United States, is—

1. In a shutter-fastener, the combination of

the shutter-rail, the hook-plate transversely disposed upon the rail, a spring secured to the said rail and normally pressing against the hook-plate, devices arranged adjacent to and upon opposite sides of the contact-point of the spring and plate retaining the plate upon the rail and limiting its movement, the said retaining and limiting devices resisting the force of the spring and affording alternately bearing-points upon which the said plate may be turned against the spring, substantially as described.

2. In a shutter-fastener, the combination of the shutter-rail provided with a vertical hole or recess, a spring located in the said hole and having one leg driven into the rail and one leg projecting from the said hole, a hook-plate placed across the bottom of the rail, the end of the projecting leg of the spring passing through the said plate, the said plate having slots on opposite sides of the contact-point of the spring and plate, and screw-stops driven through the said slots into the rail and adapted to retain the plate and to afford turning-points for the plate, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD FRANCIS MCINTIRE.

Witnesses:

P. FRANK PACKARD,  
C. C. MARSHALL.