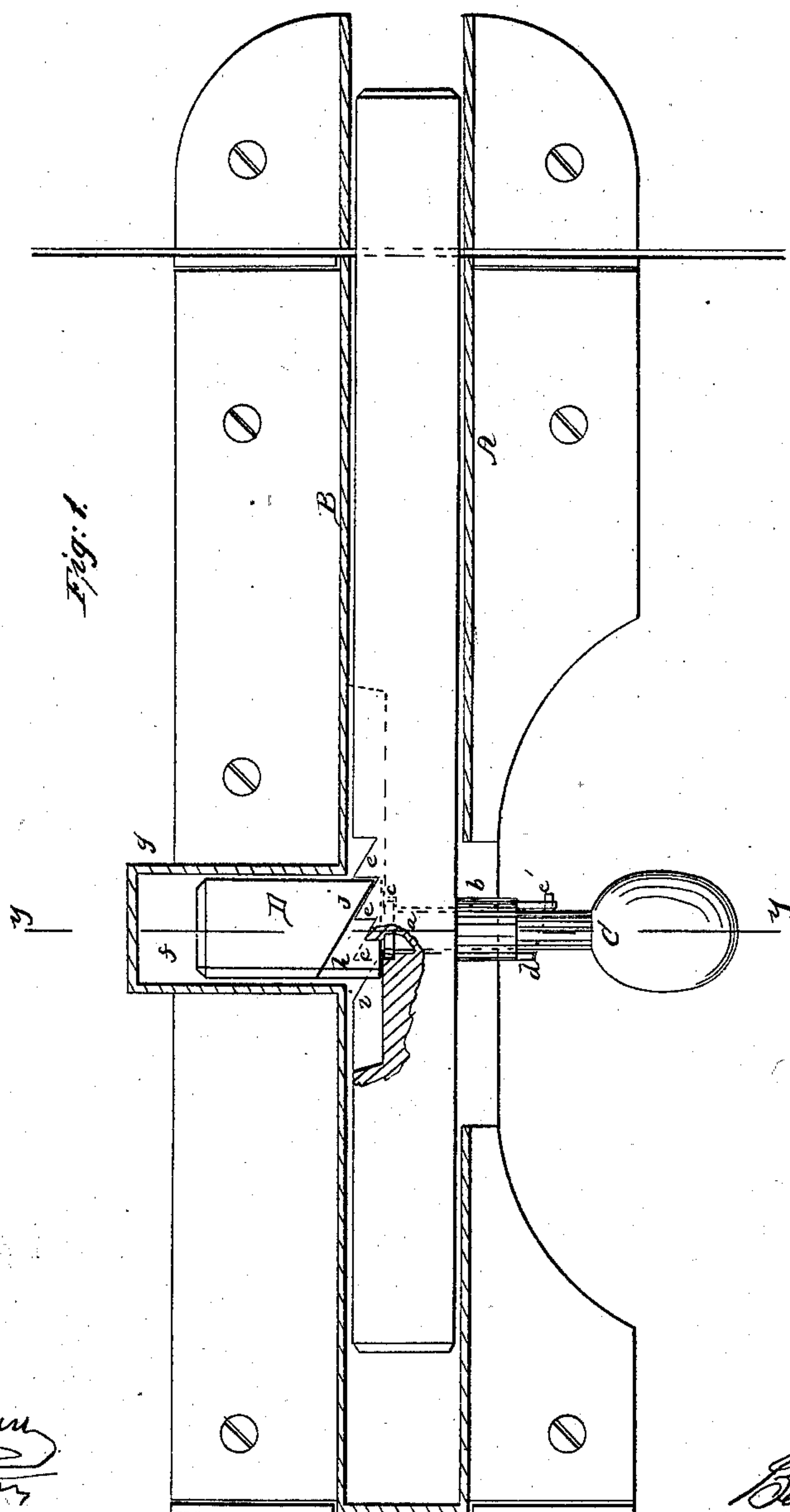
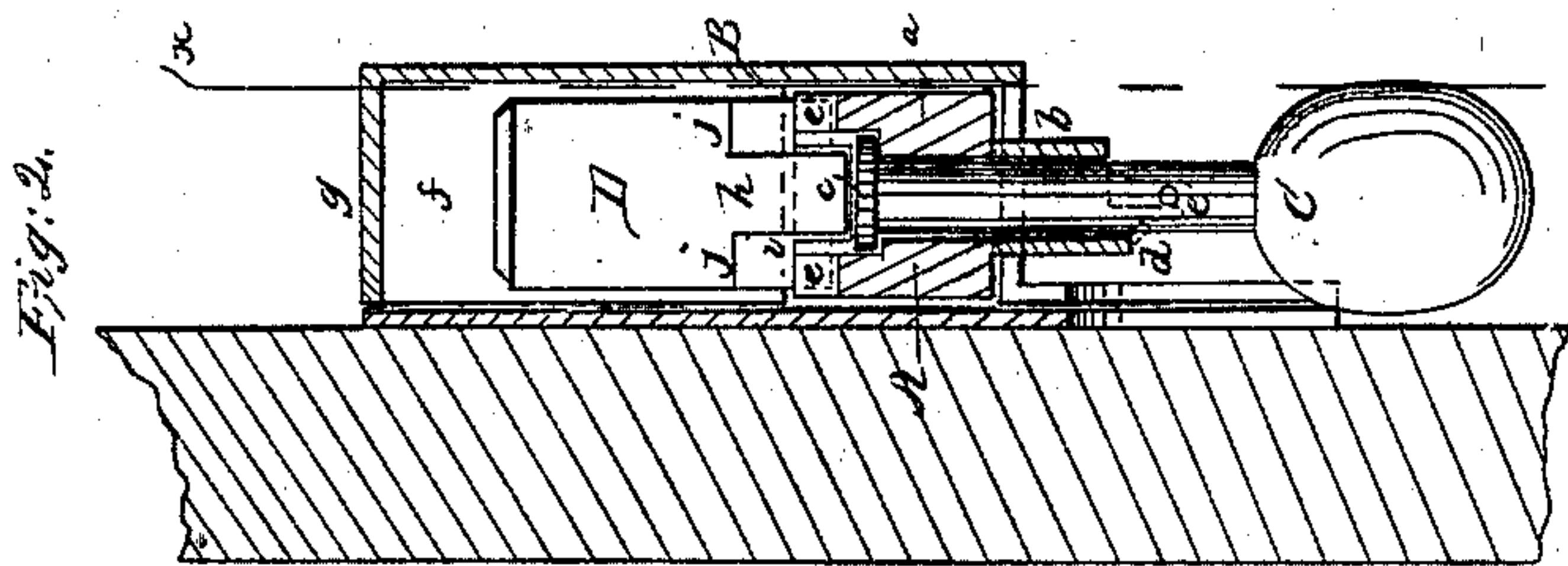


B. Russell,
Door Bolt.

N^o 32,002.

Patented Apr. 9, 1861.



Witnesses:

C. H. Cowan
Wm. Russell

Inventor:

Benjamin Russell

UNITED STATES PATENT OFFICE.

BENJAMIN RUSSELL, OF BROOKLYN, NEW YORK.

DOOR-BOLT.

Specification of Letters Patent No. 32,002, dated April 9, 1861.

To all whom it may concern:

Be it known that I, B. RUSSELL, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Bolt; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1, represents a vertical longitudinal section of this invention, the line *x. x.* Fig. 2, indicating the plane of section. Fig. 2, is a transverse vertical section of the same, taken in the plane indicated by the line *y. y.* Fig. 1.

Similar letters of reference in both views indicate corresponding parts.

This invention consists in arranging the button which serves for sliding the bolt in and out in such relation to a drop catch, which by catching into ratchet teeth on the edge of the bolt retains the same in any desired position, that by pushing in said button the drop catch is made to release the serrated edge of the bolt, thus allowing the latter to slide freely in either direction and that by turning said button after the bolt has been pushed out, it, together with the

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation with reference to the drawing.

The bolt A, slides backward and forward in the case B, in the usual manner, a button C, being provided, which protrudes beyond the case so that by its aid the bolt can be moved. This button instead of being firmly secured to the bolt, is made to move in and out freely, being guided by a hole *a*, in the body of the bolt and by a short tube *b*, secured to one of its edges. The inner end of the stem of the button bears a disk or washer *c*, which prevents it from dropping out when the bolt is turned in a position as shown in the drawing. The end of the tube *b*, is cut out so as to form an inclined plane *d*, and a pin *e'*, which is firmly inserted into the stem of the button, when brought in such a position that it is opposite the high-

est part of said inclined plane, prevents the button being pushed in.

The edge of the bolt opposite the tube *b*, is furnished with ratchet teeth *e*, and a drop catch D, the front edge of which is so shaped that it readily catches into the ratchet teeth *e*, moves up and down, or in and out in a space *f*, surrounded by an additional case *g*. That side of the drop catch D, which is nearest to the bolt, is divided into three parts. The middle part *h*, is left square and it extends down into a slot *i*, in the bolt and between the ratchet teeth *e*, and the outer parts *j*, are inclined to correspond to the shape of said teeth as clearly shown in Fig. 1 of the drawing. The ratchet teeth *e*, are so shaped that they do not interfere with the forward motion of the bolt, but if the bolt is thrown forward so that the drop catch D, engages with one or the other of the ratchet teeth, a backward motion of the same is most effectually prevented. By pushing in the button C, the drop catch is raised clear of the ratchet teeth and the bolt can now be moved freely in either direction.

It is obvious that when the bolt is placed in a horizontal, and the drop catch in a vertical position, as shown in the drawing, the gravity of the latter will be sufficient to cause it to engage with the ratchet teeth *e*, but if it should be desired, to use the bolt in a vertical position, a small spring would be required, to cause the catch to engage with the teeth *e*. In both cases the bolt will be retained as soon as it is moved out far enough to bring one of the ratchet teeth under the front edge of the catch and it can not be pushed back until, by pushing in the button the catch is raised clear of the ratchet teeth. And if the bolt is thrown out and the button is now turned so as to bring the pin *e'* opposite the highest portion of the inclined plane *d*, the bolt is firmly locked and it is impossible to push it back from the outside by any improper means.

This bolt is very simple in its construction, all its parts can be cast and it can be operated with the same ease and facility as a bolt of the ordinary construction, while

at the same time the self-locking attachment gives additional security to it.

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

5 The arrangement of the sliding button C, with the locking pin *e'*, and inclined plane *d*, in combination with the drop catch D,

and ratchet teeth *e*, on the edge of the bolt A, constructed and operating in the manner and for the purpose specified.

BENJAMIN RUSSELL.

Witnesses:

M. M. LIVINGSTON,

C. W. COWTAN.