No. 639,515. Patented Dec. 19, 1899.

# C. BROWN.

## LATCH.

(Application filed May 31, 1899.)

(No Model.)

Fig. 1.

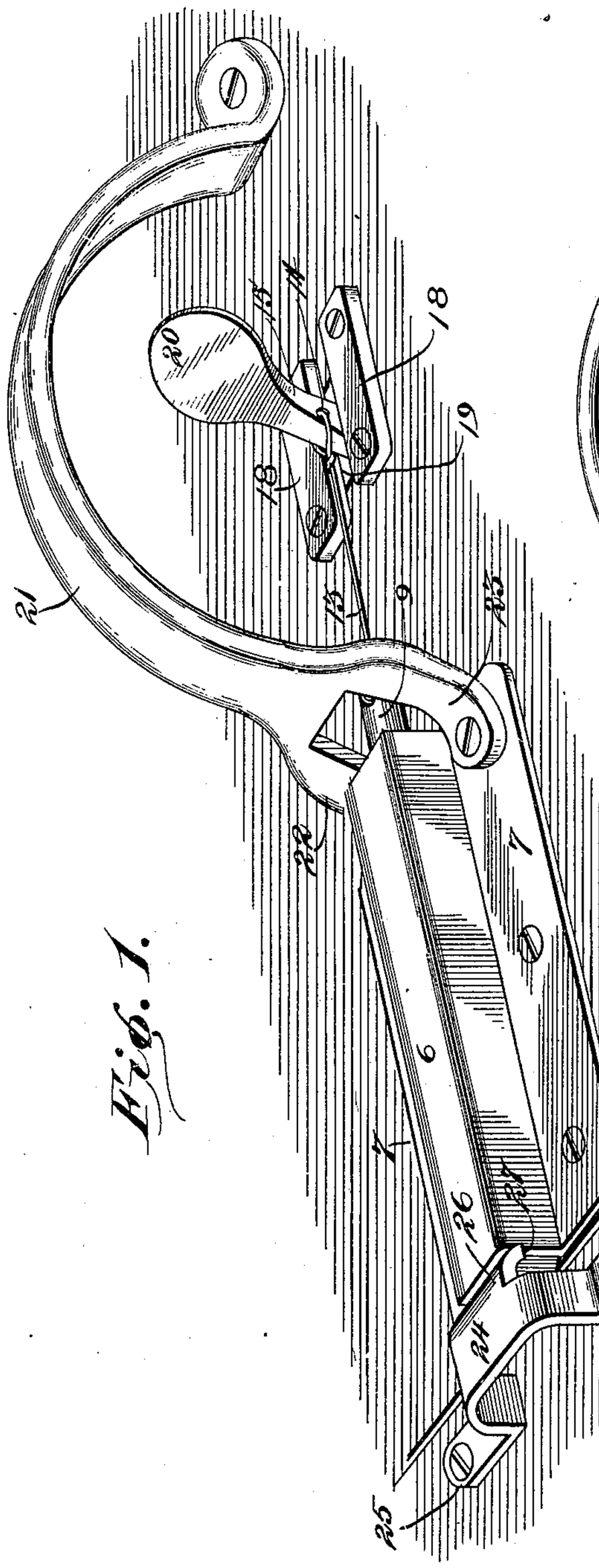
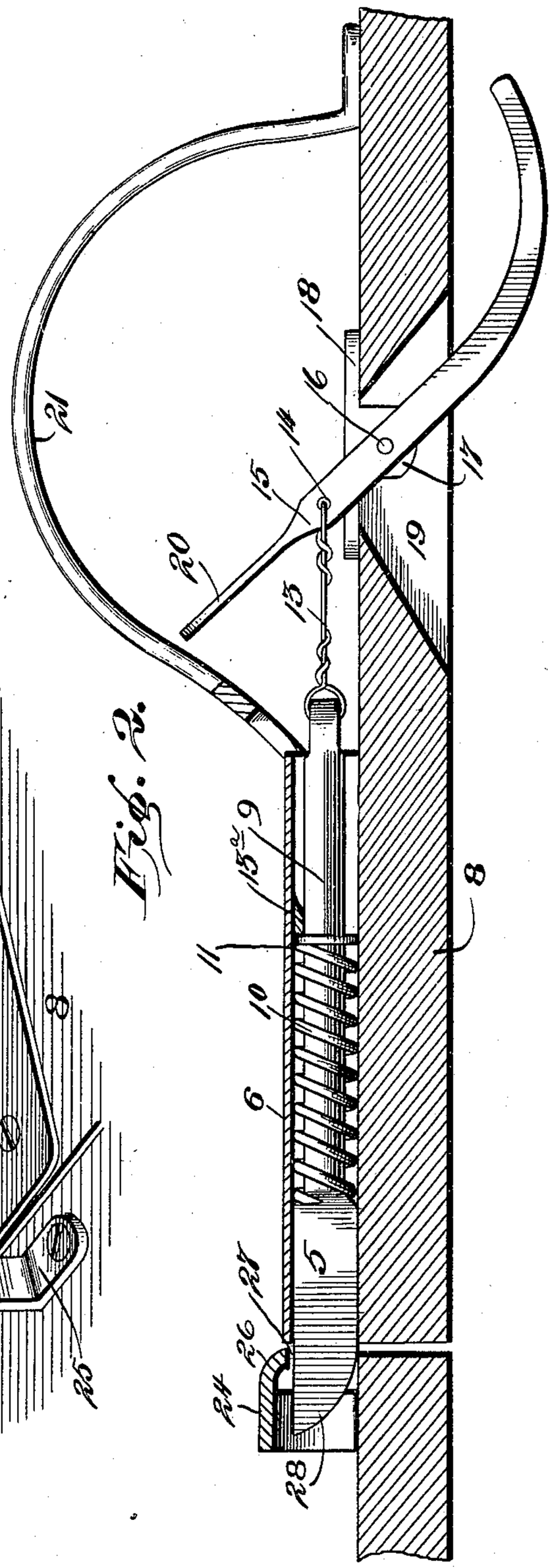



Fig. 2.




Witnesses
Clarence H. Walker
Geo. H. Chandlee

Charles Brown Inventor
By Their Attorneys.
C. A. Snow & Co.

# UNITED STATES PATENT OFFICE.

CHARLES BROWN, OF LIGHTSVILLE, OHIO.

## LATCH.

SPECIFICATION forming part of Letters Patent No. 639,515, dated December 19, 1899.

Application filed May 31, 1899. Serial No. 718,851. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES BROWN, a citizen of the United States, residing at Lightsville, in the county of Darke and State of Ohio, have invented a new and useful Latch, of which the following is a specification.

My invention relates to latches; and it has for its object to provide a latch which is particularly adapted for application to a barn-door or other heavy door and which may be disposed upon the door in any relation thereto, as may be desired.

A further object of my invention is to provide a durable and neat arrangement of bearings for the latch-lever which may be easily and quickly adjusted and which will be effective in their operation.

The invention consists of a spring-pressed bolt adapted to engage a keeper, and which keeper has a downwardly-curved lip extending in the direction of the bolt and which will act to press the bolt backwardly when the door is closed.

Extending from the bolt-casing and rearwardly thereof is a handle having an opening adjacent the casing for the passage of the rear end of the bolt. From the rear end of the bolt extends a flexible connection to a latch-lever, which lever is passed through a slot in the door and has bearings in the inwardly-extending ears of plates arranged one at each side of the latch-lever. The handle, which extends over the latch-lever at the outer side of the door, forms a guard for the lever, while a spring is arranged upon the bolt to hold it normally distended.

In the drawings forming a portion of this specification, Figure 1 is a perspective view showing my invention as applied to a door, and Fig. 2 is a section on line 2 2 of Fig. 1.

Referring now to the drawings, I provide a bolt 5, adapted to be reciprocated in a casing 6, and which latter has outwardly-extending flanges 7, through the medium of which it is secured to the face of a door 8. The rear portion of the bolt 7 is reduced in transverse section, as shown at 9, and upon this reduced portion is disposed a helical spring 10, which bears at one end against the shoulder which forms one terminus of the reduced portion. The opposite end of the spring 10 engages a washer 11 upon the reduced portion 9 of the bolt, and which washer lies against the inwardly-directed shoulder $13^a$ upon the inner face of the casing.

The rear end of the bolt 5 is perforated, as shown, and through this perforation is passed a flexible connection 13, the opposite end of which is passed through a perforation 14 in the latch-lever 15, which latter has trunnions 16, having bearings in the ears 17 of plates 18, which are disposed upon the face of the door 8 and at each side of a slot 19, formed therethrough, the ears 17 lying in similarly-formed recesses in their respective faces of the slot 19. The end of the lever containing the perforation 14 is extended upwardly a suitable distance and is provided with a finger-grip 20, as shown, the opposite end of said lever extending through the slot 19 and in a direction away from the bolt 5 and forms a means on the opposite side of the door from the bolt for withdrawing the latter.

The combined handle and guard 21 has one end bifurcated to form legs 22 and 23, which are disposed at opposite sides of the rear end of the casing 6 and engage the flanges 7. Common retaining-screws are passed through alining perforations in the legs 22 and 23 and the flanges 7, as shown, said screws entering the material of the door 8. The handle 21 curves outwardly and then inwardly over the lever 15 and forms a guard therefor, the rear end of the guard being secured to the door-face through the medium of the screw or bolt, as shown. It will be noted that the interspace between the legs 22 and 23 forms a passage for the bolt 5.

In connection with my latch I employ a keeper comprising a U-shaped plate 24, having outwardly-extending flanges 25 at its ends, and which latter are perforated for the reception of attaching-screws, as shown. The edge of the web 26 of the plate adjacent the bolt 5 is curved outwardly and downwardly, as shown, to form an abutting flange 27, which in the operation of closing the door receives the direct engagement of the tapered end 28 of the bolt 5, and thus acts to throw the bolt against the tendency of the spring 10 in the usual manner.

It will be readily understood that I may em-

ploy my latch wherever it is applicable, and also that I may vary the specific construction and arrangement herein shown and that I may use whatever material may be deemed expedient in the manufacture without departing in any way from the spirit of my invention.

Having thus described the invention, what is claimed is—

1. A latch comprising a bolt and its casing, a latch-lever connected with said bolt, trunnions carried by the latch-lever, plates having bearings therein receiving the trunnions, a handle connected with said casing and extending over the lever, and a keeper for said bolt.

2. The combination with a door and its casing, said door having a slot therein, of a latch comprising a bolt and its casing, plates adjacent to the slot in the door and having ears lying in recesses in the face of the slot, bearings in said ears, a latch-lever having trunnions disposed in said bearings, said lever passing entirely through said slot, connections between the lever and bolt, a handle connected with the bolt-casing and extending over the latch-lever, and a keeper for the bolt.

3. The combination with the door and its casing, said door having a slot therethrough, of a bolt having a casing, plates connected with the door and having ears lying in recesses in the face of said slot, bearings in said ears, a latch-lever passed through said slot and having trunnions disposed in said bearings, connections between the lever and the bolt, a handle having a bifurcated extremity within the slot of which bifurcation the bolt-casing is disposed, connections between said bifurcations and the bolt-casing, and a keeper having an outwardly and downwardly extending flange projecting in the direction of the bolt and over which the bolt is adapted to slide.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES BROWN.

Witnesses:

MARY E. WHITACRE,

F. M. WHITACRE.