

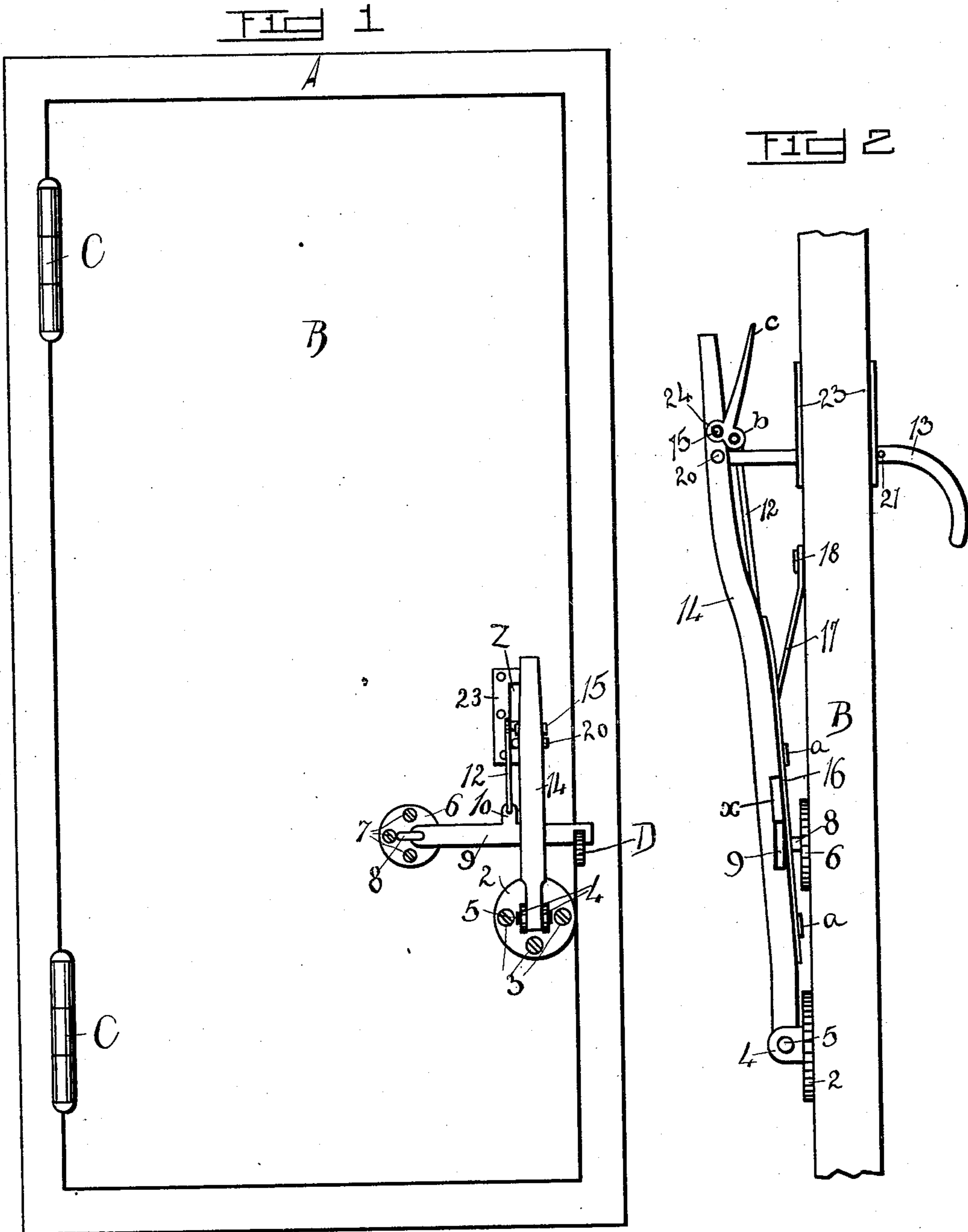
No. 685,106.

Patented Oct. 22, 1901.

C. W. CLARK.
DOOR LATCH.

(Application filed June 28, 1901.)

(No Model.)



WITNESSES

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DOOR-LATCH.

SPECIFICATION forming part of Letters Patent No. 685,106, dated October 22, 1901.

Application filed June 28, 1901. Serial No. 86,394. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN W. CLARK, residing at Union, in the county of Cass and State of Nebraska, have invented certain useful Improvements in Door-Latches; and I do hereby declare that the following is a full, clear, and exact description thereof, 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, which form a part of this specification.

This invention relates to a new and novel improved door-latch.

The object of my invention is more particularly to provide a door-latch so arranged that a storm-tight union between the door and the door-frame is insured, so that there will be no rattling of the door.

My invention is more particularly adapted to be used on farmhouse-doors where an ordinary latch is used.

In the accompanying drawings I have shown in Figure 1 an ordinary door provided with my latch, while Fig. 2 shows a side elevation of a broken section of a door disclosing the arrangement of the latch.

To an ordinary door-frame A is secured an ordinary stop D, into which drops a gravity-bar 9, as is usual in door-latch construction. This gravity-bar 9 is pivotally secured to the staple 8, passing through the plate 6, which plate is held by means of suitable screws 7 and is secured in alinement with the stop D. This gravity-bar 9 is provided with an ear 10, from which extends a rod 12, which rod above is secured to the eye *b* of the lifting-handle *c*, which, by means of a pin 15 passing through the ear 24, is secured to the latch-bar 14, as shown. This latch-bar 14 is below, by means of a pin 5, secured to the ears 4 of the plate 2, which plate is secured to the door by means of the screws 3. This latch-bar 14 is provided with a seating, as is shown at *x*, within which works up and down the gravity-bar 9. Upon the rear and covering the opening X is a metal strip 16, secured to the latch-bar 14 by means of the pins *a*, so that this gravity-bar works up and down within the latch-bar 14, and held by means of the strip-bar 16, as shown in Fig. 2. At a suitable point adja-

cent the latch-bar 14 I provide the door B (referring now to Fig. 2) with an outwardly-pressing spring 17, held by means of a pin 18, which spring 17 exerts a pressure against the latch-bar to shove the same outward. In order to prevent the latch-bar 14 working too far away from the door B, I provide the door with an opening *z*, reinforced by means of the plates 23, and through this opening *z* extends the handle 13, curved upon the rear, as is shown in Fig. 2, while the forward end by means of the pivot-pin 20 is secured to the latch-bar 14, as is shown in Fig. 2. The movement of this handle 13 in one direction is controlled by the pin 21, working against the inner plate 23 of the door.

Now in order to open a door provided with my improved latch from the outside it would simply be necessary to raise the handle 13, which upward movement of the handle 13 would tilt the lifting-handle upward to carry the gravity-bar 9 out of engagement with the stop D. As soon as this were done the handle 13 would of course gravitate downward. To open the door from the inside, the operator would grasp the lifting-handle *c* to carry the rod upward to lift the gravity-bar 9 out of engagement with the stop D.

In order to close the door, the gravity-bar 9 rides over the stop D, as in any ordinary latch; but in order that the gravity-bar 9 falls into the actual opening within the stop D the latch-bar 14 must be pulled inward by means of the handle 13 or pushed inward directly by means of the latch-bar D against the tension of the spring 17. From this it will be seen that as long as the gravity-bar 9 is within the stop D the spring 17 exerts a tension against the bar D to force the door inward, so that the door B is normally held within the frame against spring tension to insure a storm-tight connection and preventing any rattling of the door.

These latches may be made of any suitable size or material.

Having thus described my said invention, what I claim as new, and desire to secure by United States Letters Patent, is—

In a door-latch of the character described, the combination with a pivotally-held latch-

bar, of a lifting-handle secured to said latch-
bar, a gravity-bar pivotally held, a rod ex-
tending from said gravity-bar and secured to
said lifting-handle, a spring to normally force
5 said latch-bar outward, a handle movably se-
cured to said latch-bar and a stop controlling
the movement in one direction of said handle

and connected latch-bar, all arranged sub-
stantially as and for the purpose set forth.

CHRISTIAN W. CLARK.

In presence of—

GEO. W. SAXON,
PAT HAYS.