

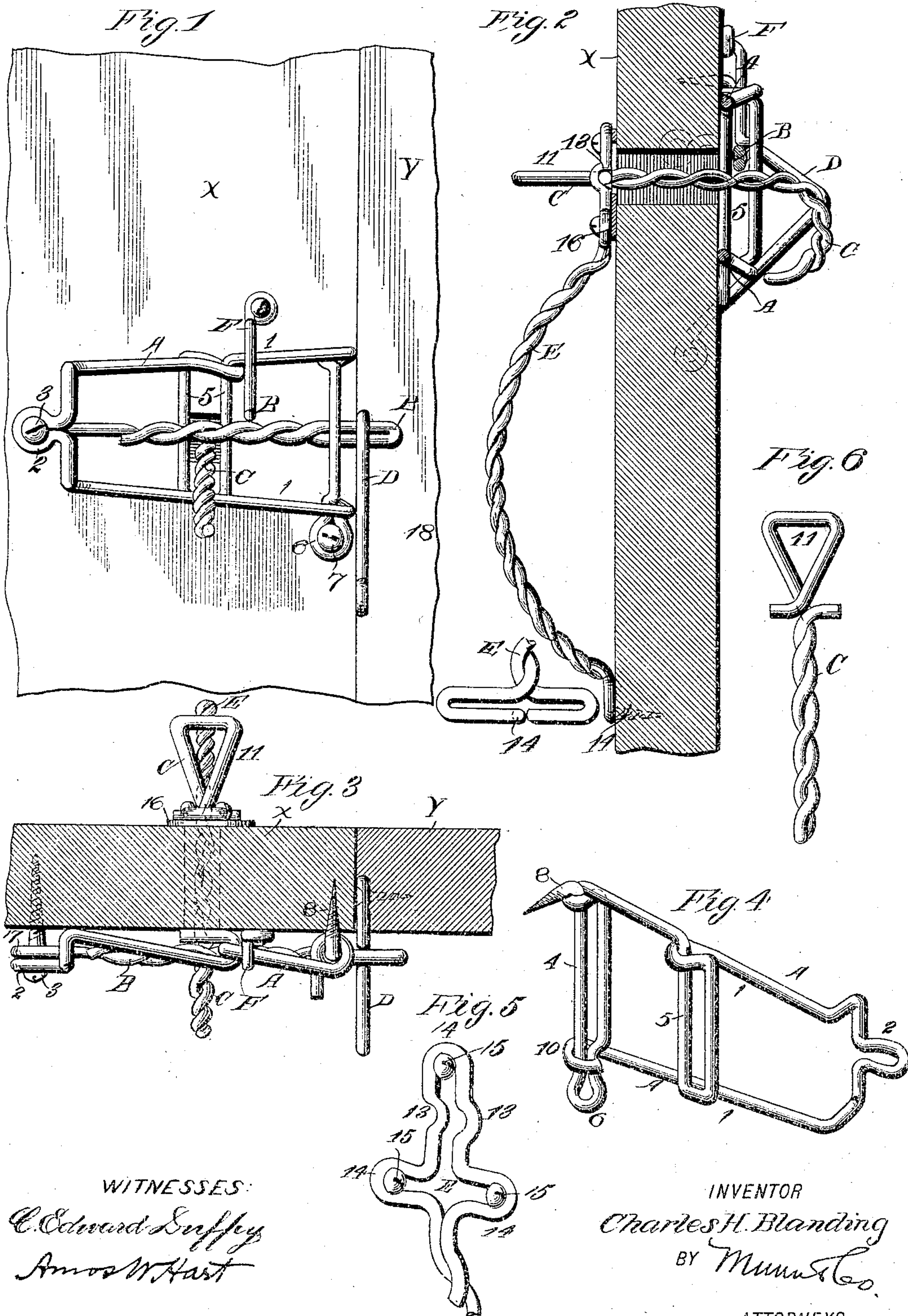
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C. H. BLANDING.
LATCH.

APPLICATION FILED MAR. 8, 1904.

NO MODEL.



UNITED STATES PATENT OFFICE.

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LATCH.

SPECIFICATION forming part of Letters Patent No. 774,033, dated November 1, 1904.

Application filed March 8, 1904. Serial No. 197,090. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. BLANDING, a citizen of the United States, and a resident of Harvey, in the county of Walls and State of North Dakota, have made certain new and useful Improvements in Latches, of which the following is a specification.

The object of my invention is to provide an improved substitute for ordinary door-latches which shall be simpler, cheaper, stronger, and more durable.

The construction of the latch is as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation showing the latch applied to a door and door-jamb. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is a horizontal section on the line 3 3 of Fig. 1. Fig. 4 is a perspective view of the skeleton door plate or frame. Fig. 5 is a perspective view of the top portion of the door-handle. Fig. 6 is a plan view of the thumb-latch.

Referring especially to Fig. 1, A indicates a skeleton door plate or frame; B, the door latch or bar; C, the thumb latch or lever employed for raising said bar; D, the catch for the door-latch, and E the door-handle. The plate or frame A is constructed of wire, the same having (see especially Figs. 1 and 2) side bars 1, which are slightly inclined to each other, an end loop 2, through which a screw 3 passes for securing the frame to the door X, a larger end loop 4, arranged to form a guide-slot for the pivoted latch B, and a central guide 5 for the thumb-lever C. One terminal of the flexible wire of which this frame is made is provided with an eye 6, through which a screw 7 is inserted for further securing the frame A to the door, and the other terminal, 8, of the wire (see Figs. 3 and 4) is bent at a right angle and projects inward from the body of the frame or plate and is also tapered and screw-threaded to adapt it to enter the door. Adjacent to this point 8 the upper side bar 1 is looped around the vertical bar, and the end of the lower bar 1 is similarly looped at 10 around the lower portion of the vertical bar adjacent to the eye 6. By this means I form the frame of one inte-

gral piece of flexible wire having a requisite thickness and rigidity. In order to attach the frame to the door X, the point 8 is first inserted, it being for this purpose pressed inward and the frame rotated as required to screw it into the door. When fully inserted and the body of the frame A is arranged in the horizontal position indicated in Fig. 1, the screws 3 and 7 are inserted in the respective loops 2 and 6, as there shown. The frame A is thus firmly secured at three points, and but two supplemental screws are required for the purpose.

It will be seen that the upper bar 1 (see Fig. 4) is looped upon itself and carried down to the lower bar in order to form the vertical guide-loop for the thumb-lever C. The latter is formed in the shape of a hook (see Fig. 6) and is constructed integrally of wire, like the frame A. The broader portion 11, upon which the thumb rests when operating the lever, is formed by bending one terminal of the wire, and the body of the lever is formed by doubling the wire upon itself and twisting it, as shown. The hooked or curved portion extending on the inner side of the door X serves as a finger-hold for raising the latch and opening the door. The ends 12 of the wire, which form the pivots of the thumb-lever, are formed by bending the adjacent ends of the wire laterally, as shown in Fig. 6. These pivots 12 are held in bearings formed by bends 13, provided in the upper portion of the handle E. As shown in Fig. 2, the said handle is constructed of a single wire which is doubled and twisted, the lower terminal of the wire forming a screw-point 14 (see Fig. 2) and the upper portion being practically T-shaped, as shown in Fig. 5, the same having three loops 14, which receive screws 15. A washer 16 (see Fig. 2) is arranged between the upper end of the handle E and the door X, the same being slotted to allow space for the thumb-lever C. This washer 16 serves as a means for retaining the pivots of the thumb-lever in the bearings 13.

The latch or latch-bar B is constructed of wire bent upon itself and twisted, as plainly indicated in Fig. 1, and one end thereof is formed as a loop 17 (see Fig. 3) to receive the

screw 3, which also passes through the eye 2 of the frame A. As indicated in Figs. 1 and 2, the latch-bar B is adapted to work vertically in the elongated guide-loop 4, formed at the 5 end of the frame A which is adjacent to the door-jamb Y.

A catch D is formed of wire and secured to the jamb Y by means of screws that pass through eyes formed at the terminals of the 10 catch, as indicated by dotted lines in Fig. 2.

As shown in Figs. 1 and 2, a lock F is provided for holding the latch B engaged with the catch D. The said lock is constructed of wire and has one end formed as an eye through 15 which a pivot-screw 18 passes for securing it to the door above the frame A. When the device F is swung up into the position indicated by dotted lines, it is free of the latch B. Said device is suitably bent to adapt it to 20 swing over the upper side bar of frame A and to engage the latch B.

It will be perceived that all the parts of my improved door-latch are constructed of wire, so that the same excels in cheapness, strength, 25 and durability.

What I claim is—

1. In a door-latch, the improved skeleton frame constructed of wire having upper and lower bars which are looped vertically to form 30 guides for the latch-bar and thumb-lever, and also provided with eyes at two points for reception of securing-screws, one terminal of the wire being bent laterally and tapered and threaded to form a screw-point, as an additional means for securing the frame, in the 35 manner described.

2. In a door-latch, the improved skeleton frame formed of a single piece of wire, the

same having top and side bars and vertical, central, and end loops formed by bending the 40 wire upon itself, also an end loop for receiving a fastening, one end of the wire being bent laterally and formed as a screw, substantially as described.

3. In a door-latch, the improved skeleton 45 frame formed of a single piece of wire, the same having top and lower bars, and end bars connecting the latter, one of the said end bars being formed as a loop and adapted for guiding the latch-bar in the manner described. 50

4. In a door-latch, the combination, with a frame secured to the door and latch adapted to work in said frame, and a handle applied to the opposite side of the door, of the thumb-lever having its bearings in sockets provided 55 in the handle, the latter being constructed of wire and bent outward at its upper end to form the said bearings, substantially as described.

5. In a door-latch, the thumb-lever con- 60 structed integrally of wire which is doubled upon itself, the terminals of said wire being brought together and projecting in opposite directions laterally, substantially as described.

6. In a door-latch, the improved handle 65 constructed integrally of wire which is doubled and twisted upon itself, one terminal of the wire projecting inward and being formed as a screw and the upper end of the handle being formed with loops adapted to receive 70 screws for securing the handle to a door, substantially as described.

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Witnesses:

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