E. B. GIFFORD.

LATCH.

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995,860.

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Fig. 3

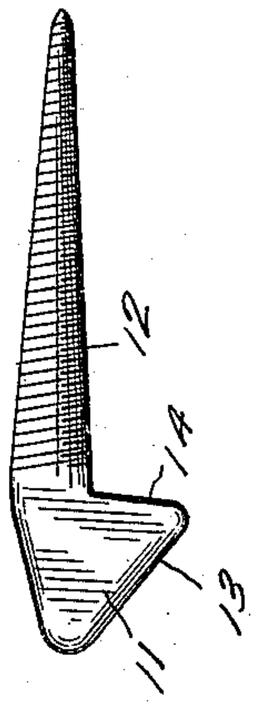


Fig. 4

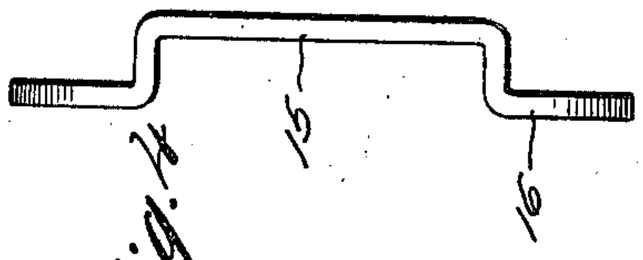


Fig. 1

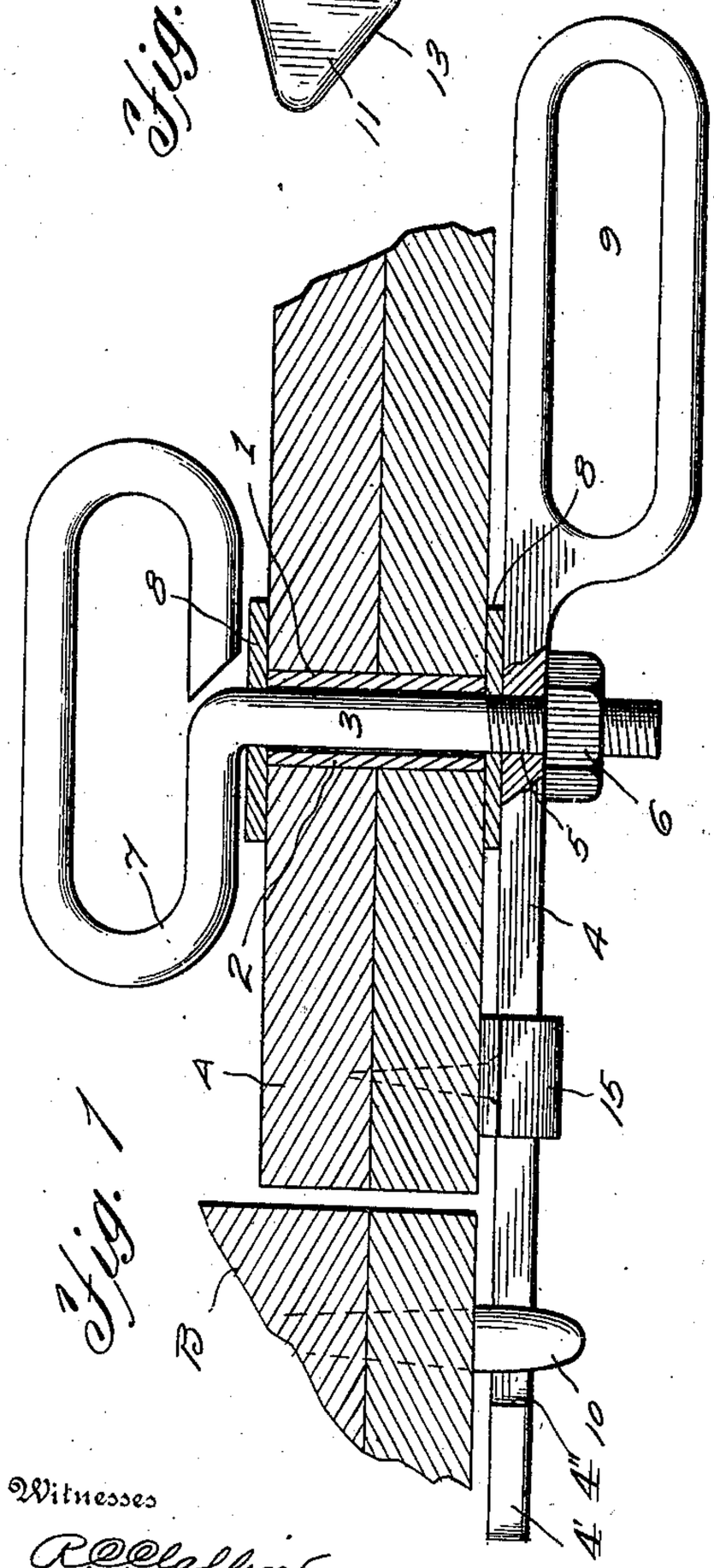
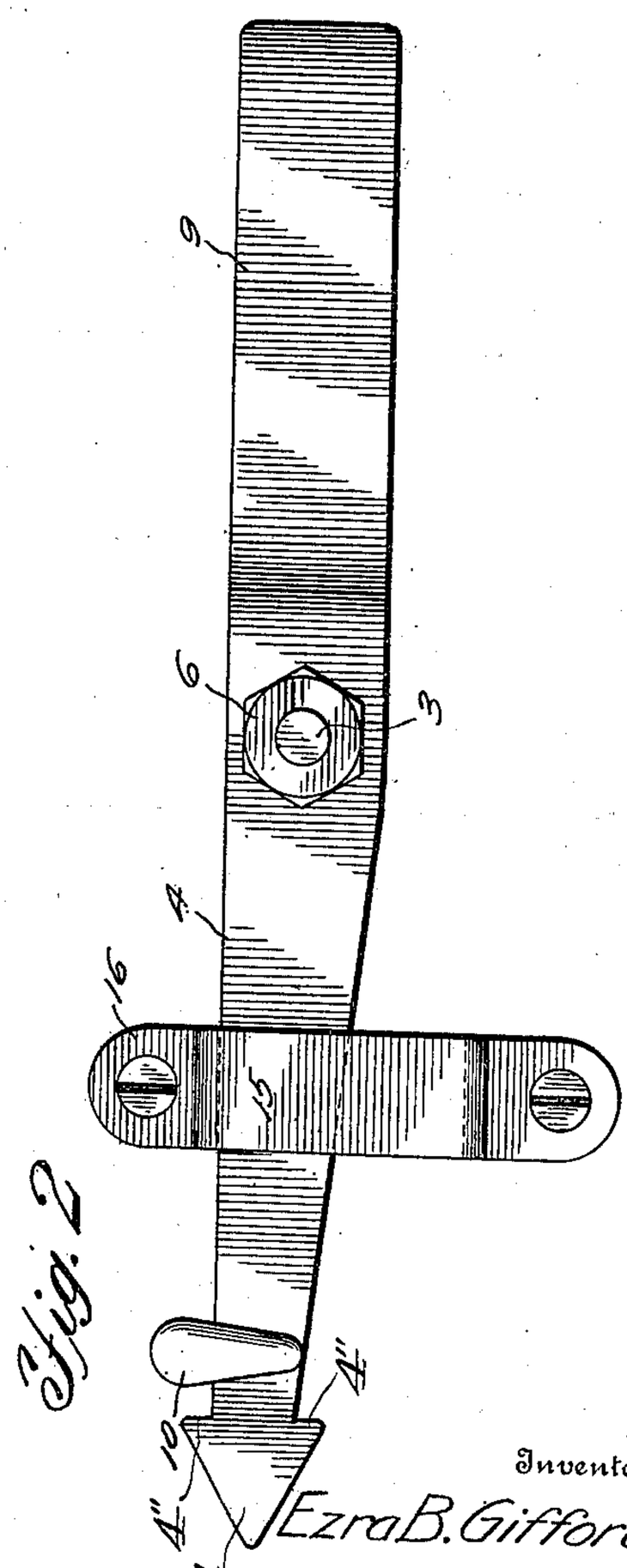


Fig. 2



Witnesses

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EZRA B. GIFFORD, OF LAUREL, IOWA.

LATCH.

995,860. Specification of Letters Patent. Patented June 20, 1911.

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To all whom it may concern:

Be it known that I, EZRA B. GIFFORD, a citizen of the United States, residing at Laurel, in the county of Marshall and State of Iowa, have invented new and useful Improvements in Latches, of which the following is a specification.

This invention relates to latches or door fasteners of that type in which the latch comprises a pivotally mounted lever or handle member that is over-weighted by the handle or grip, whereby the latch is automatically held in engagement with the catch of the door fastener.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character so as to be comparatively easy and inexpensive to manufacture, readily applied to doors of different thicknesses and so designed that it will automatically fasten a door when the latter is swung closed.

A further object of the invention is the provision of a door fastener having a grip on the inside as well as on the outside, one grip being formed on the fulcrum for the swinging latch member.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts, which will be more fully described hereinafter and set forth with particularity in the appended claim.

In the accompanying drawing, which illustrates one of the embodiments of the invention:—Figure 1 is a plan view of the door fastener applied to a door, the latter being shown in section. Fig. 2 is a side elevation. Fig. 3 is a detail view of the catch. Fig. 4 is a side view of the guide for the latch member.

Similar reference characters are employed to designate similar parts throughout the several views.

Referring to the drawing, A and B designate respectively portions of a door or frame. The door, which may be of any desired thickness, is provided with a horizontal opening 1 in which is arranged a metal bushing or sleeve 2 for the reception of a bolt or fulcrum 3 on which a swinging latch member 4 is mounted. The latch member, which has a pointed end 4′ and shoulders 4″, is provided with an opening 5 through which the bolt 3 extends, there being a nut 6 on the bolt for holding the latch member in position. The head end of the bolt is formed into a loop 7 that constitutes a handle or grip, whereby the latch can be opened from the side of the door opposite from that of the latch. Interposed between the latch member and the door at one side and the grip 7 and the door on the opposite side are washers 8 for taking the wear.

The latch member comprises a lever-like structure having one end formed into a loop 9 that constitutes a grip and is of sufficient mass to counter-balance the portion of the member on the opposite side of the fulcrum or bolt 3.

On the door frame B is a catch designated generally by 10, which has a pointed head 11 as shown in Fig. 3 and a threaded shank 12 for screwing into the door frame. The head has a downwardly inclined under surface 13 that terminates at the shoulder or vertical surface 14, whereby the latch member engages the under surface 13 and is depressed thereby when the door is swung closed until it passes behind the shoulder 14, whereupon it will swing upwardly behind the latter by reason of the weight of the handle end.

Fastened to the door is a vertical guide 15 having offset apertured feet 16 for receiving screws to fasten the guide to the door, thereby limiting the guiding movement of the latch member.

In practice, the door fastener can be applied to a door of any desired thickness, since the bolt 3 is of sufficient length to be used in connection with ordinary doors. In applying the parts, the door is bored to receive the bushing 2 and the bolt is inserted through a bushing after the washer has first been placed on the bolt. Another washer is applied to the projecting end of the bolt and the latch member assembled and securely held in place by screwing on the nut. The catch 10 is applied to the door frame at a point to engage the free end of the latch and to normally hold the latch in horizontal position, and the guard or keeper is applied to the door surface to hold the latch member in proper position when the door is open for enabling the latch member to automatically engage the catch when the door is swung closed and it also guides and limits the movement of the latch member. By forming a grip on the bolt a comparatively simple form of latch or door fastener is pro-

vided and the door can be opened or closed from either side.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention together with the device, which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired as are within the scope of the appended claim.

Having thus described the invention, what is claimed, is:—

The combination of a latch member comprising a bar having a threaded opening at an intermediate point and formed with a grip at one end weighted to overbalance the other end, the lighter end of the bar being formed with a shoulder for engaging a catch and beveled outwardly from the shoulder to slide on the catch and tilt the latch member, a straight pivot having one end threaded in the bar and the opposite end formed into a handle loop, a nut on the threaded end of the pivot and jamming against the bar to rigidly connect the pivot and bar together, and a guide for limiting the movement of the latch member.

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

EZRA B. GIFFORD.

Witnesses:
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