

C. A. MILLIGAN.

LATCH.

APPLICATION FILED OCT. 30, 1906.

922,177.

Patented May 18, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

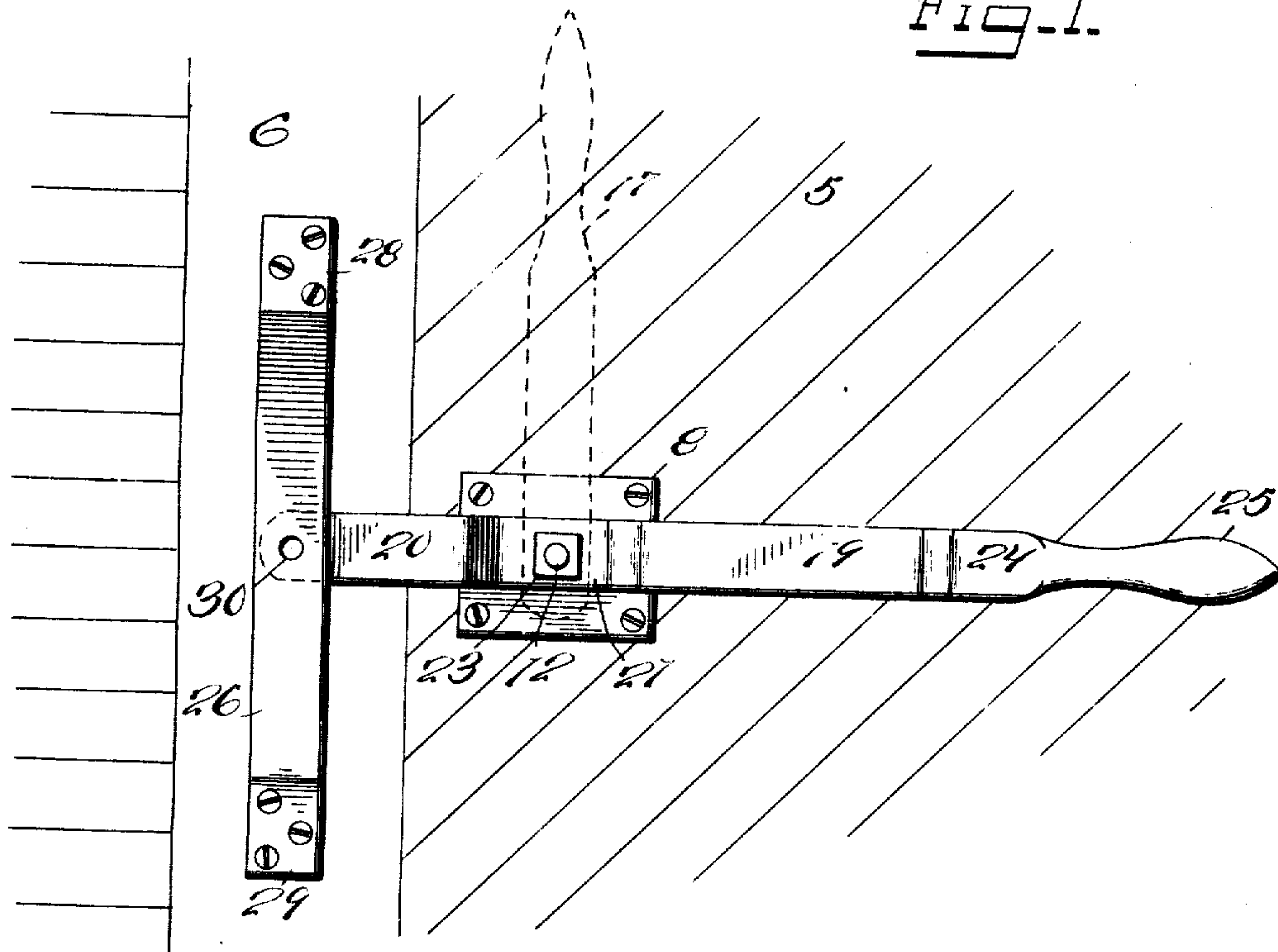
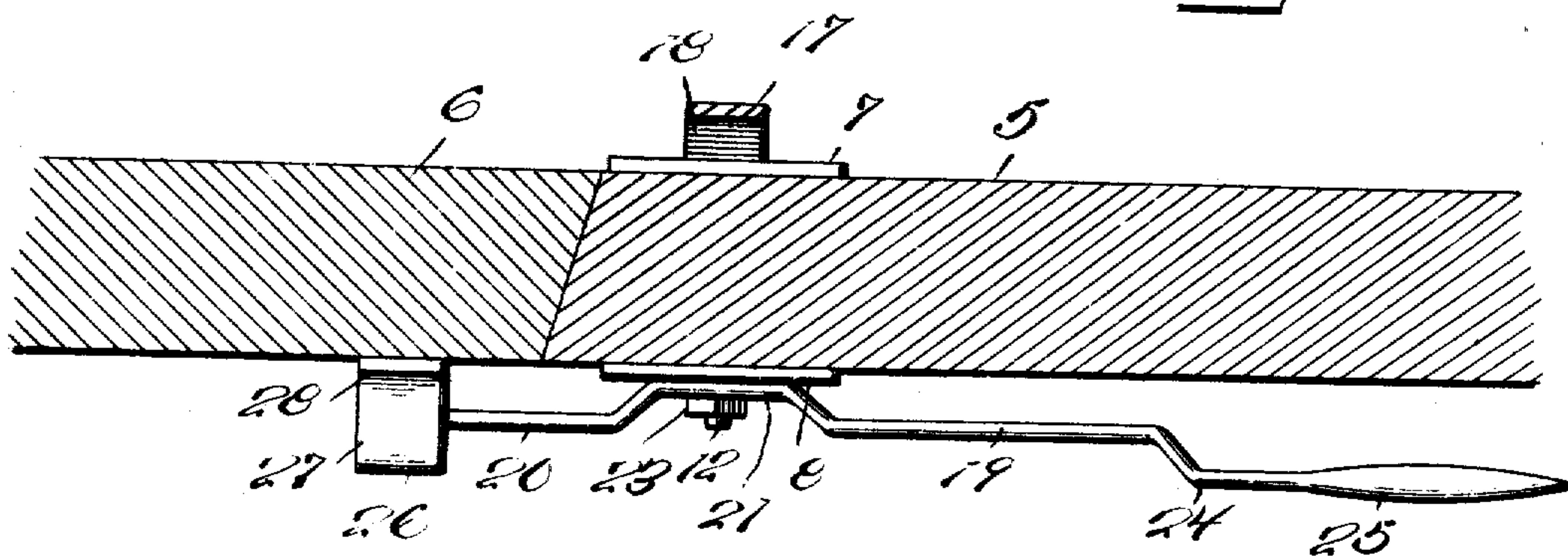


Fig. 3.



Inventor

C. A. Milligan

By

*Charles J. Smith*

Attorneys.

Witnesses

*E. R. Thomas*

*W. J. Smith*

C. A. MILLIGAN.  
LATCH.  
APPLICATION FILED OCT. 30, 1906.

922,177.

Patented May 18, 1909.  
2 SHEETS—SHEET 2.

Fig. 2.

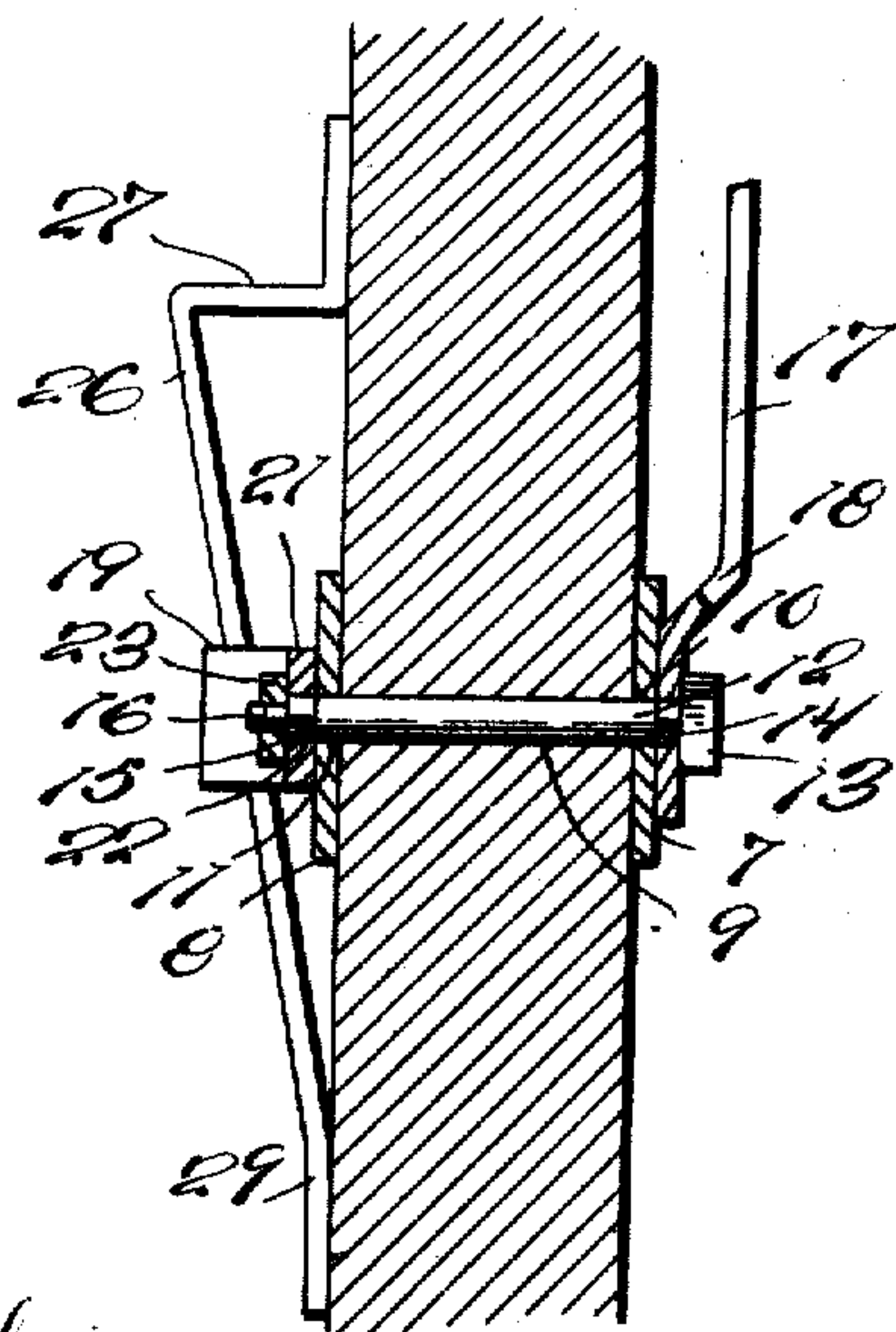
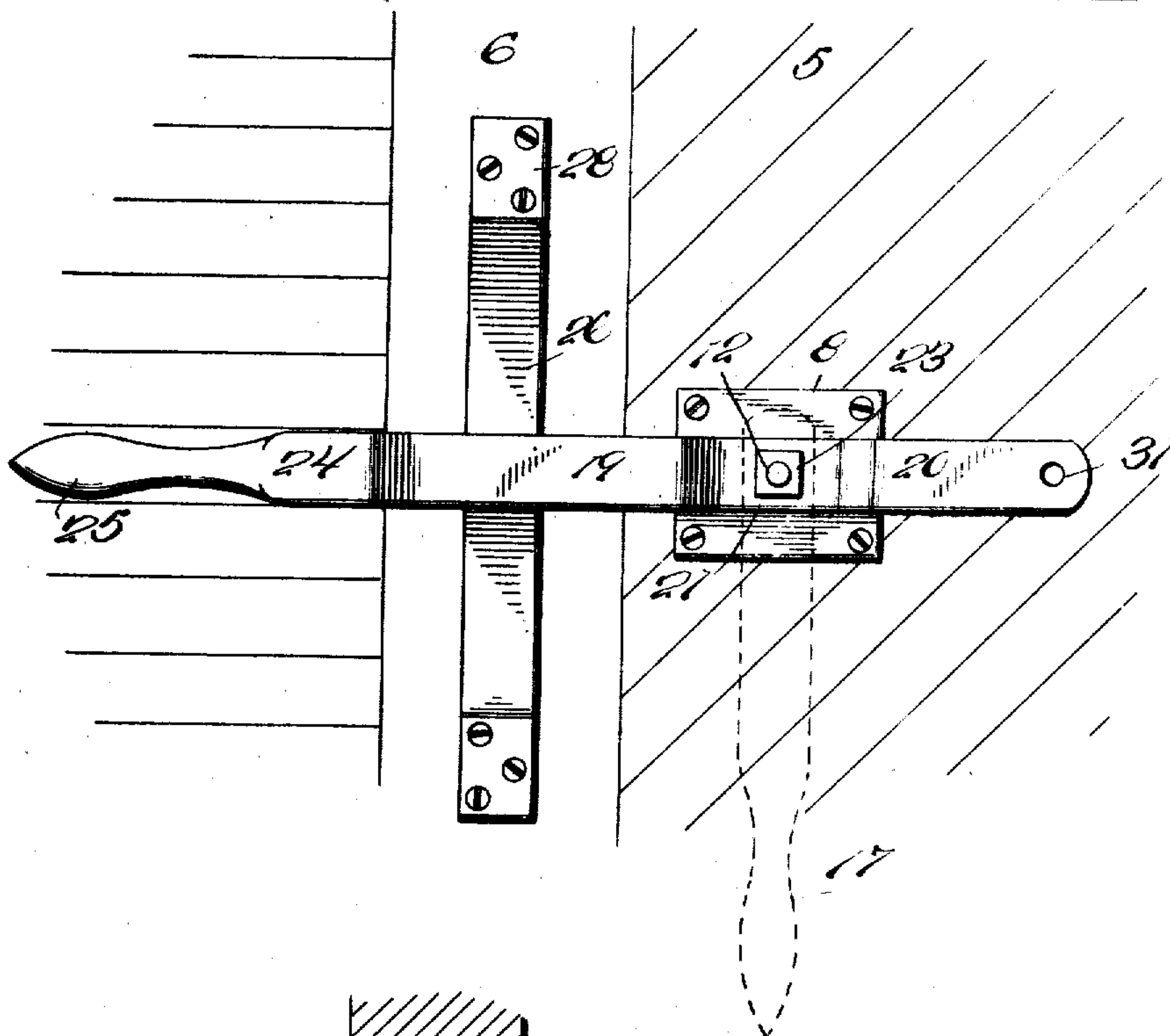


Fig. 4.

Witnesses  
G. R. Thomas  
J. G. Smith

Inventor  
C. A. Milligan  
By *Charles C. C. C.*  
Attorneys



# UNITED STATES PATENT OFFICE.

CHARLES A. MILLIGAN, OF TAYLORVILLE, ILLINOIS.

## LATCH.

No. 922,177.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed October 30, 1906. Serial No. 341,276.

*To all whom it may concern:*

Be it known that I, CHARLES A. MILLIGAN, a citizen of the United States, residing at Taylorville, in the county of Christian, State of Illinois, have invented certain new and useful Improvements in Latches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to latches, and more particularly to latches which are best adapted for use on beveled or other tight fitting refrigerator doors, and the object of the invention is to provide a latch of this character which may be operated to tightly close the door and which may also be operated to open the door.

Broadly stated, the latch comprises a latch lever having major and minor offset portions which are adapted to engage the inner and outer faces respectively of an inclined keeper to close or open the door. Heretofore devices of this class have been so constructed that it is necessary to give the latch lever a complete rotation. In the use of my device it is only necessary to rotate the latch lever approximately one-half of a circle and to accomplish this result I have provided a novel form of latch lever.

In the accompanying drawings: Figure 1 is a front elevation of my invention applied to a refrigerator door and showing in dotted lines the operating handle for the latch which is located inside of the refrigerator. Fig. 2 is a view similar to Fig. 1 showing the latch lever swung into proper engagement with the keeper to open the door. Fig. 3 is a horizontal sectional view through the door and a portion of the frame showing the latch in top plan, and Fig. 4 is a detail vertical sectional view through the pivot bolt for the latch lever, showing the manner of connecting the latch lever and the inner latch handle therewith.

Referring more specifically to the drawings, the numeral 5 denotes a refrigerator door and 6 a portion of the door casing.

Secured at corresponding points upon the inner and outer faces of the door 5 and adjacent the outer edge thereof are plates 7 and 8, and rotatably engaged through an opening 9 formed through the door and through openings 10 and 11 formed respectively in the plates 7 and 8, is a pivot bolt 12 which is provided at one of its ends with a head 13 and

inwardly of the head with a squared portion 14 and adjacent its opposite end with a squared portion 15 and at its extreme opposite end with a reduced threaded portion 16. Engaged upon the squared portion 14 of the bolt is one end of a hand lever 17, which lever is located inwardly of the door 5 and is offset as at 18 directly above its point of connection with the bolt 12 so that it may be readily grasped without the hands of the operator being injured by contact with the door when the lever is operated. The purpose of this lever will be presently explained.

The latch lever of my device is formed of a bar of metal having major and minor offset portions 19 and 20 respectively and a connecting portion 21 through which is formed a rectangular opening 22 which is engaged with the squared portion 15 of the pivot bolt 12, the said lever being thus held upon the bolt for movement simultaneously with the hand lever 17 and being prevented against disengagement therefrom by means of a nut 23, which is engaged upon the threaded portion 16 of the pivot bolt and confines the connecting portion 21 between the nut and the plate 8. The major offset portion 19 of the latch lever is itself provided with an offset 24 which terminates in a handle 25 by means of which the lever may be turned for a purpose to be explained.

A keeper is provided for the latch lever and comprises a bar 26 which has its upper end bent rearwardly as at 27, thence upwardly as at 28 and secured to the door frame 6. The body portion of the keeper is directed downwardly from its rearwardly bent portion 27 and inwardly at an angle to the door frame 6 to which it is secured at its lower end as at 29. Adjacent the middle of its body portion, the keeper 26 is provided with an opening 30 and an opening 31 is formed through the minor offset portion 20 of the latch lever.

When it is desired to lock the door, the handle 25 is grasped and the latch lever swung so that its minor offset portion 20 will engage the rear or inner face of the body portion 26 of the keeper, the said handle end of the lever being shoved upwardly which will cause the said portion 20 to bind against the keeper and tightly close the door. When this has been done, the bail of a padlock (not shown) may be engaged through the openings 30 and 31 and it is to be understood that these openings may be of any



suitable size and shape which may be desired.

When it is desired to open the door or, in other words, to slightly open the same, the latch lever is swung in a half circle until its major offset portion 19 engages the outer face of the bottom portion of the keeper, the handle end of the latch lever being then shoved upwardly to cause this portion 19 to bind against the said outer face of the keeper and release the door. It will be readily understood that the hand lever 17 may be operated by any one within the refrigerator. It will, of course, be understood that the operating lever which lies inwardly of the door may be omitted when the latch is used in connection with a small refrigerator.

What is claimed is:—

In a device of the class described, the combination with a door and its frame, of an inclined keeper secured to the frame, a pivot bolt passed through the door, a latch lever fixed to one end of the bolt and outwardly of the door, said latch lever having its portions upon opposite sides of its point of connection with the pivot bolt offset to lie in spaced relation to the door, the said offset portions

being of substantially the same length and being each adapted for engagement with the keeper one portion being designed to ride within the keeper and the other along the outer face of the keeper, a handle formed with the last mentioned portion, a hand lever fixed to the other end of the pivot bolt inwardly of the door, said hand lever being extended in a plane at right angles to the latch lever and being arranged to extend upwardly in a vertical plane when the first mentioned portion is engaged within the keeper and to extend downwardly in a vertical plane when the second mentioned portion is engaged with the outer face of the keeper, said hand lever being also arranged to be swung to the extent of a semi-circle in a direction away from the free edge of the door to bring the said portions into such engagement with the keeper substantially as described.

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

CHARLES A. MILLIGAN.

Witnesses:

E. R. WRIGHT,  
MAMIE WRIGHT.