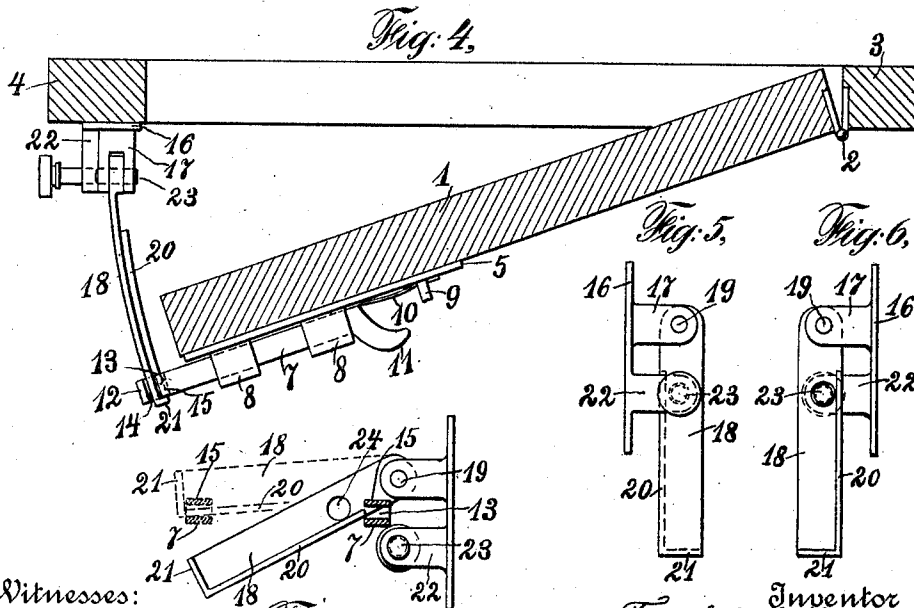
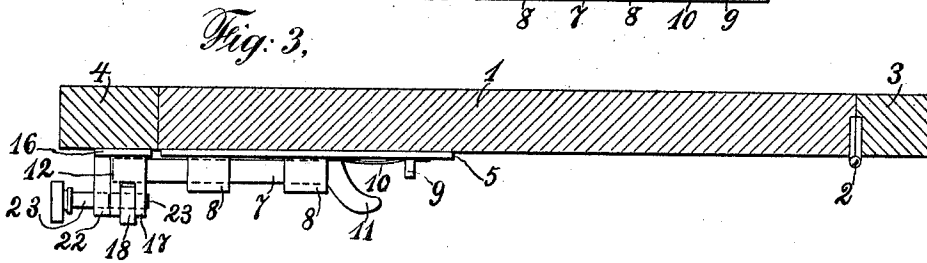
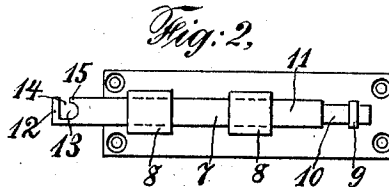


1,038,752.



Witnesses:
Max B. A. Doring.
Marie St. Leht.

UNITED STATES PATENT OFFICE.

FRANK X. HOFBAUER, OF EAST ORANGE, NEW JERSEY.

SAFETY-BOLT FOR DOORS.

1,038,752.

Specification of Letters Patent.

Patented Sept. 17, 1912.

Application filed January 5, 1912. Serial No. 669,596.

To all whom it may concern:

Be it known that I, FRANK X. HOFBAUER, a citizen of the United States, and a resident of East Orange, county of Essex, State of New Jersey, have invented certain new and useful Improvements in Safety-Bolts for Doors, of which the following is a specification.

This invention relates to a novel safety bolt for doors to be used in fastening a door so that it can be opened only a few inches. The novel safety bolt comprises essentially a door bolt having an incision in its front portion at a right angle to its handle and a stop in the rear, a substantially mounted swing arm coöperating with the recessed front portion of the bolt, and a separate small sliding bolt adapted to lock the swing arm and thereby the door completely. This safety device thus answers the purposes of a door chain which, however, cannot be permanently locked and is easily cut while the present device is of a more substantial and safer character and may be released, after operation, only from the inside of the door where the entire device is mounted. By simplicity in construction the cost of production has been kept low and care has been taken to produce a neat and durable article, all as will be fully described hereinafter with reference to the accompanying drawing in which:

Figure 1 represents in elevation a safety bolt for doors as applied which embodies in desirable form the present improvements. Fig. 2 shows in elevation, the large bolt proper with incision in its front portion and stop in the rear. Fig. 3 is a top plan view of Fig. 1 showing the door and its frame in section. Fig. 4 illustrates in top plan view, the device shown in Fig. 3 after it has been operated. Fig. 5 shows in side elevation the device which is mounted on the door frame as seen from the left. Fig. 6 is a like view thereof seen from the right. Fig. 7 is a detail view showing in full lines the swing arm while being operated by the bolt and in dotted lines in its final position after the operation.

Similar characters of reference denote like parts in all the figures.

In the drawing 1 represents the door, 2 a door hinge. The rear portion of the door frame is designated by the numeral 3, and 4 is the front portion of same. On the inner side of the door adjoining the front portion

of the frame there is mounted the bolt plate 5 by means of screws 6. The bolt proper 7 slides in guides 8. To arrest the rearward movement of the bolt a stop 9 and a leaf string 10 are mounted in the rear portion of the plate 5. The bolt proper has in the rear a handle 11, while its front end 12 has a vertical incision 13 at a right angle to the handle. This incision is straight in its front portion 14 while its rear or inner portion forms a top shoulder 15, whose function will be explained hereinafter.

Adjoining the bolt there is a plate 16 on the left portion of the door frame. Integral with this plate there is a stud or bearing 17 which is provided with a vertical slot in its outer portion. A slightly curved swing arm 18 is movably mounted in said slot by means of a pivot 19. This slightly curved swing arm is provided on its bottom portion with an integral guiding strip 20 at a right angle thereto which extends almost through the entire length of the arm, except to note that the inner end portion near the stud or bearing is left free.

The extreme front portion of the guiding arm forms a short shoulder 21 at a right angle to the guiding strip 20. The swing arm coöperates with the bolt when one attempts to open the door. Assuming that the bolt is in the location shown in Fig. 1, then the bolt proper is in its utmost left position and cannot be moved any farther in this direction. The vertical incision in the front portion of the bolt is now directly underneath the swinging arm. When some one attempts to open the door, the swing arm is gradually raised by the front portion of the bolt proper. At a predetermined distance the horizontal guiding strip 20 of the swing arm enters the incision of the bolt. When the door is farther opened the swing arm assumes a horizontal position while the bolt slides along the guiding strip of same. Finally, the front portion of the bolt reaches the short end shoulder of the swing arm whereby its further motion is arrested, see Fig. 4. The inner top shoulder 15 of the bolt formed when the incision was cut, slides along the guiding strip of the swing arm and prevents same from any further upward movement. From the above the function of the guiding strip 20 of the swing arm and the shoulder 15 on the front portion of the bolt proper is apparent. It is evident that the device cannot be released from the out-

side under any circumstances but solely from the inside by pushing the bolt back along the lower guiding strip 20 of the swing arm until it passes same and reaches the inner lower portion of the swing arm which is without guide.

For the purpose of locking the device permanently a second stud or support is provided on the plate 16 which is somewhat farther to the left than the stud or bearing of the swing arm. This support 22 has a horizontal opening and a small sliding bolt 23 passes through same and may be lodged in a coinciding opening 24 of the swing arm 18 as shown in Figs. 1 and 3. This small sliding bolt may be used at night to lock the door permanently and in day time when only children or sick or infirm persons are in the room. The support 22 is also cast integrally with the plate 16. It has on its inner portion a shoulder 25 in such location that the swing arm rests thereon in a vertical position when operated either by the large bolt proper after its return movement or locked by the small sliding bolt.

I claim as my invention:

1. A safety bolt for doors comprising a bolt secured to the inside of the door, having a vertical incision in its front portion, a top shoulder formed by said incision, a swing arm mounted on the door frame with an integral guiding strip at a right-angle thereto and a short vertical stop shoulder adapted to coöperate with the recessed front portion and shoulder of the said bolt and having a small opening, and a separate small sliding bolt on the door frame adjoining the swing arm adapted to engage the

opening therein for locking the door permanently.

2. A safety bolt for doors comprising a bolt secured to the inside of the door, having a vertical incision in its front portion, a top shoulder formed by said incision, and a slightly curved swing arm mounted on the door frame with an integral guiding strip at a right-angle thereto and a short vertical stop shoulder adapted to coöperate with the recessed front portion and shoulder of the said bolt, so arranged that the guiding strip of the swing arm is held within the incision of the said bolt by its top shoulder.

3. In a safety bolt for doors, a sliding bolt on the inside of the door with front incision and shoulder formed thereby at its inner top end, a sliding curved swing arm pivotally mounted on the door frame with integral bottom guiding strip extending to nearly its support and short vertical stop shoulder at its outer end, and means on the door frame adapted to engage the swing arm for locking the door permanently.

4. In a safety bolt for doors, a recessed sliding bolt with shoulder on the inside of the door, a slightly curved swinging arm adapted to engage said bolt and having a small opening, and a separate small sliding bolt on the door frame adapted to engage the opening of the swinging arm for locking the door permanently.

Signed at New York, N. Y., this 26th day of December 1911.

FRANK X. HOFBAUER.

Witnesses:

MARIE H. LEHR,
MARIE H. BRAUN.