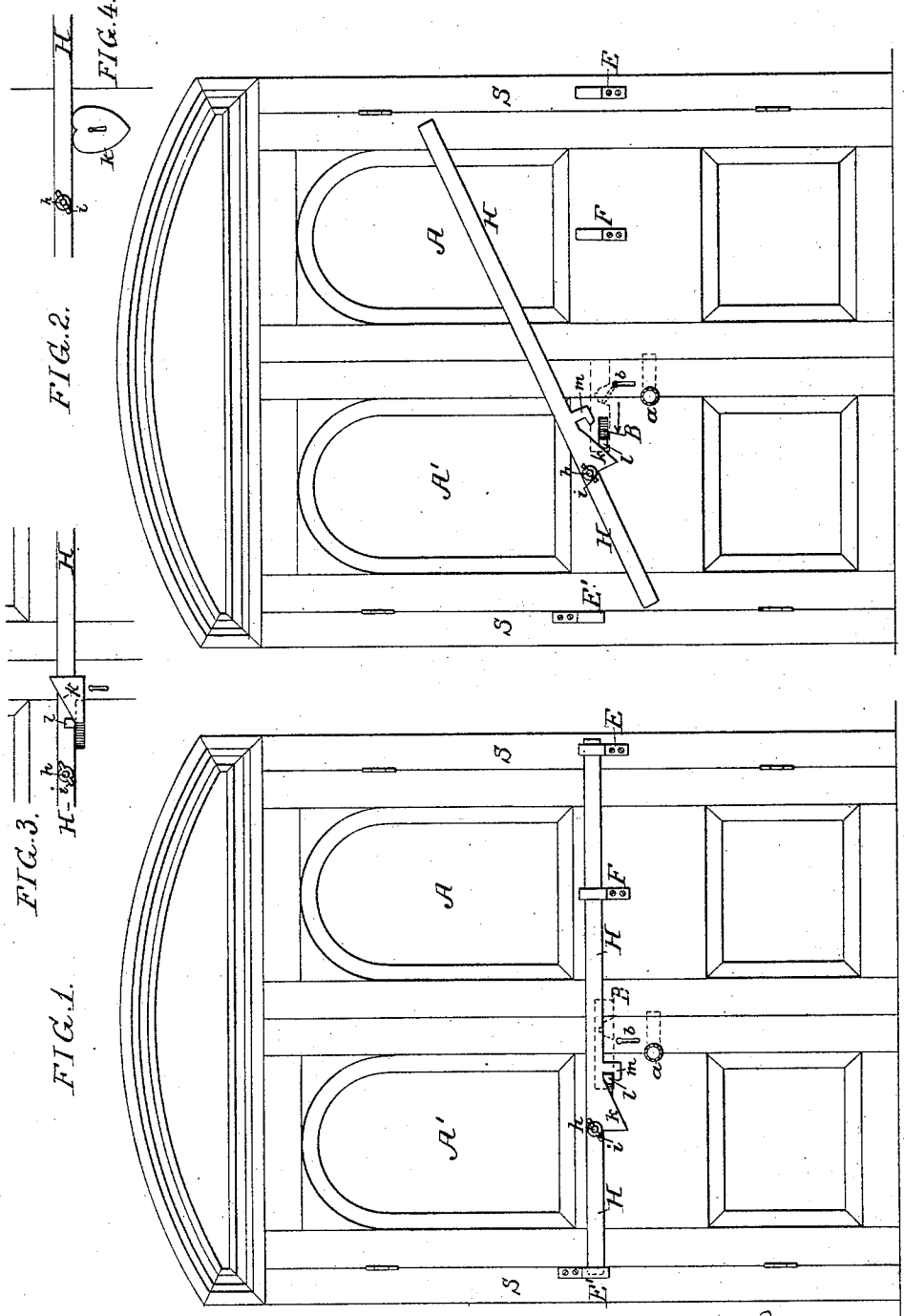
(No Model.)

J. T. & N. R. YARNALL.

DOOR AND SHUTTER FASTENER.

No. 327,373. Patented Sept. 29, 1885.



Witnesses:
John E. Parker
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by their Attys.
Howson & Sons

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN T. YARNALL AND NATHAN R. YARNALL, OF PHŒNIXVILLE, PA.

DOOR AND SHUTTER FASTENER.

SPECIFICATION forming part of Letters Patent No. 327,373, dated September 29, 1885.

Application filed June 17, 1885. (No model.)

To all whom it may concern:

Be it known that we, JOHN T. YARNALL and NATHAN R. YARNALL, both citizens of the United States, and residents of Phœnixville, Chester county, Pennsylvania, have invented certain Improvements in Door and Shutter Fasteners, of which the following is a specification.

Our invention relates to that class of door or shutter fastenings in which a transverse bar extends across the door or shutter, and is combined with retainers on the side frames; and the main object of our invention is to so construct a fastening of this character that it can be opened or operated from the opposite side of the door or shutter from that carrying the bar, as well as from that side on which the bar is located. This object we attain in the manner fully described hereinafter.

In the accompanying drawings, Figure 1 is a rear view of a door to which our improvements have been applied, and showing the retaining-bar in the locked position. Fig. 2 is a sectional view showing the retaining-bar released, and Fig. 3 is a view of a modification.

In the drawings we have shown our invention as applied to a door-frame with double folding doors; but it may also be applied to single doors or shutters.

A A′ are the two doors, mounted on hinges in the usual manner, and provided with a latch controlled by the usual knob, *a*, and with the usual locking-bolt, B, to be thrown in and out by a key inserted through the key-hole *b*.

On the two opposite side frames, S, are secured retaining-hooks E and E′, while a third retaining-hook, F, is secured to one of the doors, the hooks E and F being open on the upper side, while the hook E′ opens downward.

H is the transverse bar which is to engage with these hooks E, E′, and F, to lie in close contact with the doors, and thereby secure them. This transverse bar is pivoted or hinged on a pin or bolt, *h*, carried by the door A′, and this bolt is provided with a thumb-nut, *i*, to hold the bar on its pivot, but permitting the bar to be removed, when desired, on unscrewing the thumb-nut, when the bar is in the position shown in Fig. 2. This bar is provided on its under side with an incline or cam, *k*, on which is adapted to act a projection or pin, *l*, on the bolt of the lock, this pin projecting through a horizontal slot in the inner face of the door, and having such relation to the cam or incline that when the bolt is thrown outward to engage with the other door, as shown in Fig. 1, the pin *l* will be out of engagement with the said cam or incline, and the bar H will lie in a horizontal position in engagement with the hooks E, E′, and F, to keep the door fast; but when a key is inserted in the key-hole to throw the bolt back for the purpose of opening the door, the pin *l* on the bolt, acting on the incline or cam *k*, will turn the bar H on its pivot, so as to throw it out of engagement with the retaining-hooks E, E′, and F, as shown in Fig. 2, when the door which carries the bar can be opened on turning the latch, and the person then entering can, by unscrewing the thumb-bolt *i*, remove the bar and put it aside until such time as it is desired to secure the door again.

After the bar and thumb-nut have been applied to the pivot-pin, and the door closed, and the bolt thrown forward by the key, the bar H will turn from the position, Fig. 2, to the closed position, Fig. 1. The bar is also provided with a locking-finger, *m*, which has such relation to the pin *l* on the bolt that when the bolt is thrown out, as shown in Fig. 1, to lock the door, the pin on the bolt will engage with the said locking-finger and prevent the fastening-bar H from being turned on its pivot until the bolt of the lock is thrown back.

It will be understood that instead of forming the cam or incline on the bar H the pin or projection *l* on the bolt may be in the form of a cam and adapted to act on a pin on the bar, as is illustrated in Fig. 3, so as to turn the bar on its pivot when the bolt is thrown back in substantially the manner above described.

In Fig. 4 we have shown a further modification, in which a rotating cam acts upon the bar to lift the same. This cam may be secured to or form part of the works of the lock, or may be secured to a rotating escutcheon-plate or projecting arbor of the lock, as desired. The construction shown in Figs. 1 and 2 is, however, preferred.

When the bar H is removed, the key-lock acts in the usual manner to secure the door, the use of the bar in no way modifying the ordinary operation of the lock.

We claim as our invention—

1. The combination of a door or shutter, a frame therefor, and retaining-hooks carried by the frame, with a fastening-bar pivoted to the door or shutter and a separate lock to be operated by a key, the said lock having a portion to act upon the bar to turn the same on its pivot, substantially as set forth.

2. The combination of a door or shutter, a frame, and retaining-hooks thereon, with a fastening-bar pivoted to the door or shutter, a separate sliding locking-bolt controlling the movement of said bar, the latter and the bolt having a pin-and-cam connection, substantially as described.

3. The combination of a door or shutter and frame having retaining-hooks with a locking-bolt having a projecting pin, and a fastening-bar pivoted to the door or shutter, and provided with an incline or cam, and a locking-finger to engage with the pin on the bolt, substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN T. YARNALL.
NATHAN R. YARNALL.

Witnesses:
C. N. HOWELL,
H. H. GILKYSON.