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SAFETY CHAIN FOR DOORS.
APPLICATION FILED AUG. 8, 1905.

Fig. 1.

Fig. 2.

Fig. 3.

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SAFETY-CHAIN FOR DOORS.


To all whom it may concern:

Be it known that I, CLEMENT D. RINALD, a citizen of the United States, residing in Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Safety-Chain for Doors, of which the following is a specification.

This invention relates to safety-chains for doors—viz., chains designed to permit only the partial opening of the doors to which they are applied after said doors have been unlocked in order to prevent the entrance of undesirable persons.

The object of the invention is to provide improved means whereby the safety-chain may be released from the outside by means of a key, so that the occupants of the house may gain access to the same when such chain is in use.

With this end in view the invention consists in the novel features, arrangements, and combinations of parts to be hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents a front elevation of a door with my improved safety-chain shown in position thereon. Fig. 2 is an outside elevation of that part of the door where the lock and safety-chain are applied. Fig. 3 is a vertical transverse section on line 3 3, Fig. 1, drawn on a larger scale; and Fig. 4 is a tightly-closing front view showing the safety-chain in use for the door.

Similar letters of reference indicate corresponding parts in the different figures of the drawings.

Referring to the drawings, A represents a door, B the door-frame of the same, and C a safety-chain which is attached at one end to a stationary staple C' on the jamb of the door-frame in about the same position as the ordinary safety-chains. The opposite end of the chain C is provided with a snap-hook C, which is attached when the chain is used to the interiorly-disposed downwardly-pivoted shackle D' of a lock D, which is set in a mortise extending through the door. The shackle D' is disposed at the inner end of the lock and at right angles to the door, as shown, while the keyhole is located at the outer end of the lock, and is covered by an escutcheon D'.

When the safety-chain is used in the ordinary manner, the snap-hook C is inserted into the closed shackle D' of the door, so as to permit thereby the partial opening of the door to see who desires admission from the outside. When the door is to be opened, the snap-hook is released from the shackle. In case any one living in the house desires to come in from the outside at any time during the day or night and finds on opening the door with his regular key that the safety-chain C is applied to the shackle D' so as to lock the door he inserts an auxiliary key D' into the lock D from the outside and withdraws the latch e of the lock from the recessed end of the shackle D'. A spring e acting on the heel f of the shackle will then immediately open the latter and hold it in the raised position, (shown in dotted lines in Fig. 3,) so that the snap-hook with the chain slips off of itself and drops from the shackle into a pendent position along the jamb of the door, so as to permit the opening of the same. When the safety-chain is desired to be placed in position for locking the door, the snap-hook is slipped over the shackle D', and the latter is then closed or the same D' is pressed back into locked position and the snap-hook connected thereto in the usual manner.

To one of the links of the chain, about equal to the distance of the keeper C from the shackle D', is applied a small ring or snap-hook d', which can be inserted directly onto the snap-hook C' or the shackle D', so that the chain C when thus applied fits taut across the door from the keeper to the bail, takes up the slack of the chain, and holds the door closed, so that it cannot be opened even for an inch or so. The safety-chain serves then also as a locking device for the door and can only be opened and detached by the special key made for releasing the shackle. The regular lock and key can thereby be dispensed with and the door be locked by the chain and opened by releasing the shackle by the key from the outside or by detaching it from the shackle from the inside. In some cases, such as rear doors, this safety arrangement would be sufficient for locking and unlocking the door, so that the expensive door-lock could be dispensed with.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a door and door-frame, of a safety-chain attached at one end to the latter, and an exteriorly-operable lock embodying an interiorly-disposed shackle over which the opposite end of said chain is fitted.
2. In a device such as described, the combination, with a safety-chain attached to the door-frame, of an exteriorly-operable lock mortised in the door and embodying an interiorly-disposed downwardly-pivoted shackle over which said chain is fitted, said lock also embodying self-acting means for raising said shackle when the same is released.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

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Witnesses:
GEO. R. VAN ZANDT,
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