

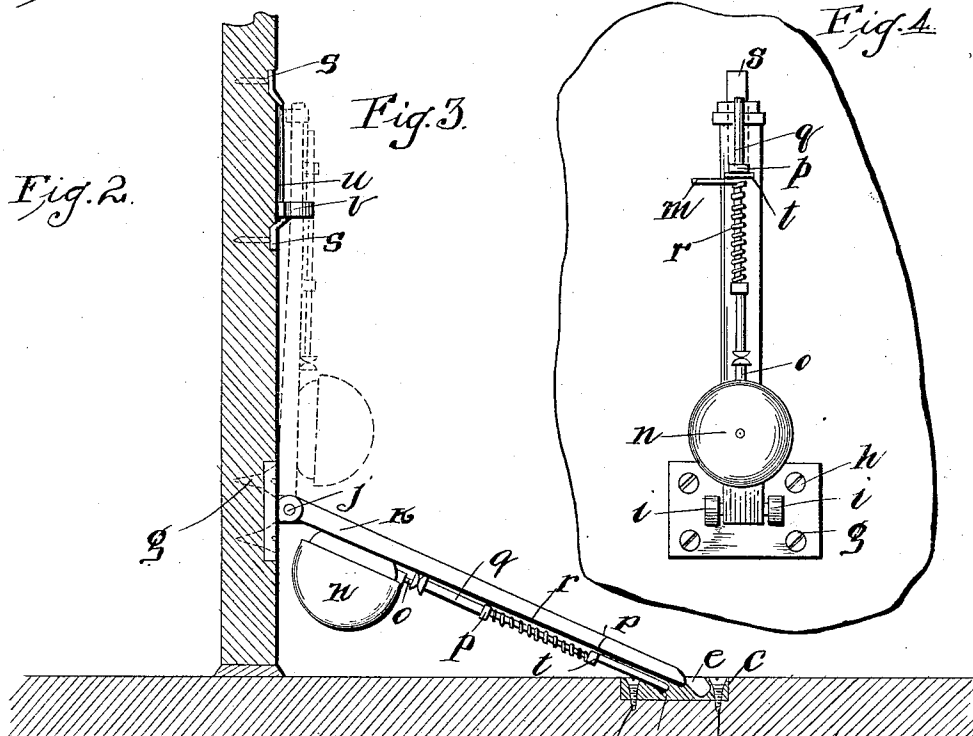
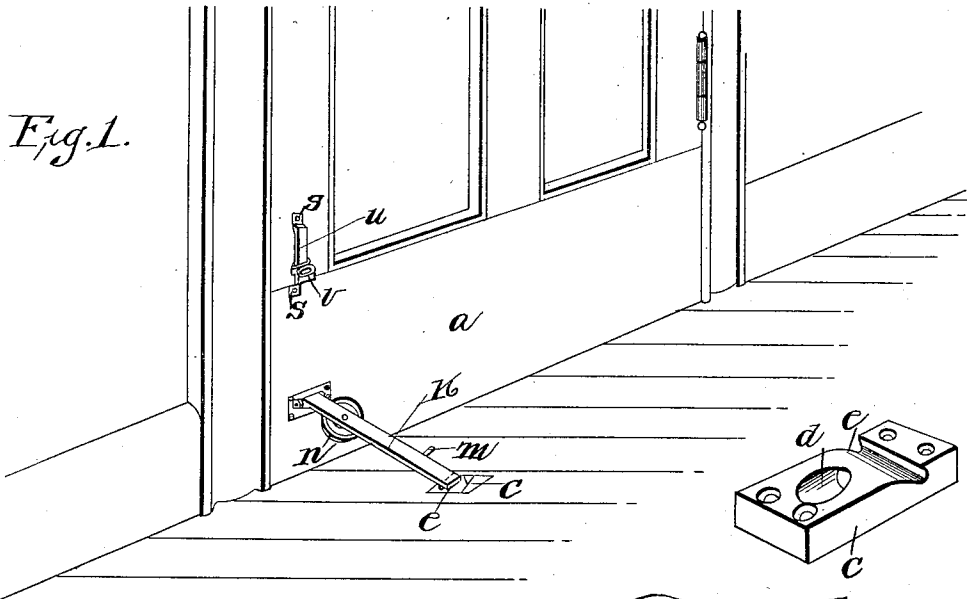
E. TROETEL.

COMBINED DOOR FASTENER AND ALARM.

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1,054,152.

Patented Feb. 25, 1913.



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UNITED STATES PATENT OFFICE.

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COMBINED DOOR FASTENER AND ALARM.

1,054,152.

Specification of Letters Patent.

Patented Feb. 25, 1913.

Continuation of application Serial No. 429,035, filed April 24, 1908. This application filed March 19, 1909, Serial No. 424,600. Renewed January 14, 1913. Serial No. 742,066.

To all whom it may concern:

Be it known that I, ELIAS TROETEL, a subject of the Queen of the Netherlands, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Combined Door Fasteners and Alarms; 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.

My invention relates to combined door fasteners and alarms and analogous devices.

This application is a continuation of my prior application Serial Number 429,035.

Various objects of my invention are to provide a simple apparatus of this character which can be easily and readily swung up into an inoperative position when it is not desired to use it, which will give an alarm on the opening of the door, which will close the door automatically after the pressure thereon is released, which besides having an appropriate alarm feature embraces a strong, durable and exceptionally efficient fastener or locking arrangement.

Various other objects, features and advantages will more clearly appear from the detailed description given below taken in connection with the accompanying drawing which forms a part of this specification.

In the accompanying drawings—Figure 1 is a perspective view of the lower part of a door and contiguous parts of a building, showing my invention applied thereto. Fig. 2 is a cross section of the door and a part of the floor, my invention being shown in side elevation. Fig. 3 is a front view of a part of the door, showing my invention when not in use. Fig. 4 is a perspective view of the catch.

a represents a door of any usual or desired form, and *b* the floor inside the door.

This floor is cut away for the reception of a hollow metal catch *c*, which consists of a rectangular piece of metal, having a small socket *d*, and cut away at *e*, leaving a curved over back, said catch preferably being fastened in a recess in the floor by screws *f*. Of course the catch might be fastened on the top of the floor without cutting the latter away, but the arrangement mentioned above is preferable.

The door *a* is preferably cut away for the reception of the base plate *g* of my invention, which is preferably made rectangular in form, and fastened to the door by screws *h*, although any desired means for fastening it to the door may be used. On the face of the plate *g* are lugs *i*, in which is mounted a pintle *j*, the whole forming a hinge, said pintle being firmly attached to the rigid bar *k*, carrying on its under side a bell *n*, of any desired type, the operating lever of which is shown at *o*.

On the bottom of the bar *k* are fixed perforated lugs *p*, and in these lugs a rod *q*, provided with an operating handle *m*, slides freely. Around the rod *q* and between the lugs *p* is a spiral spring *r*, which bears at one end against one of said lugs *p* and at the other end against the pin *t*, which passes through the rod *q*.

When it is desired to throw the device out of use, as often happens in the day time, it is swung up into the position shown in Fig. 3, and in dotted lines in Fig. 2. Above the plate *g* is mounted a securing device, which consists of parts *s*, secured to the door by screws or other suitable fastening means, and a part *u* bent outwardly from the parts *s*. On the part *u* is slidably mounted a securing device *v*, consisting of two loops, one of which engages the part *u* and the other of which is adapted to slip down over the upper end of the bar *k* when the latter has been swung upward, as shown in Fig. 3.

It should be noted that the bar *k* is mounted on the door quite close to the bottom thereof, so that if an attempt should be made to open the door, the thrust on the bar *k* will be nearly along the longitudinal direction thereof. Furthermore, the bar *k* is firmly attached to the door, so that said bar will not yield to thrust strains. This bar *k*, being rigid and set almost horizontally, forms a positive fastening against the opening of the door more than a crack.

The operation is as follows: The parts being in the position shown in Fig. 3, the bar *k* is released from its securing means, and, the door being closed, the spring *r* is slightly compressed by the handle *m*, and the bar *k* swung down into its lowest position. The handle *m* is then released, whereupon the spring *r* forces the rod *q* into the socket *d*, the parts being then in the position best

shown in full lines in Fig. 2. As the end of the rod *g* enters the socket *d*, the edge of which overhangs, as shown, it is impossible for a burglar to slip a case knife or thin piece of steel underneath the door and thus dislodge the rod *g* from the socket *d*. If the door is opened the slightest degree, the bell *n* is at once operated, giving an alarm, and the bar *k* engages the back of the catch *c*, preventing the door from being opened more than a crack. As soon as the pressure on the door is released, the spring *r* closes the door again. The socket *d* and the plate *g* serve to prevent the floor and the door from being injured when it is attempted to open the door, at the same time, however, allowing the alarm to be operated. It should also be noted that the spring *r* will automatically close the door as soon as the pressure on said door is released, and that the bell will be operated indefinitely by the opening of the door. It should also be noted that two functions are provided for in this invention, namely the locking function and the alarm function. For the locking function applicant provides a rigid bar extending between the door and a catch in the floor. This is entirely independent of the other function, and this part of the device could be used alone, if desired. For the alarm function applicant provides an extra rod which coacts with the other parts to ring the bell. By divorcing these functions, applicant is enabled to have a rigid bar, the strength of which is in no way interfered with by the alarm feature.

I claim:

1. The combination of a door, a rigid bar or plate hinged to the said door, a bell carried by said bar or plate, a rod slidably mounted on said bar or plate, a spring normally holding said rod clear of engagement from said bell, the said rod engaging said bell when pressed against the action of said spring, and a catch secured to the floor, and

having means adapted to successively engage said rod and said bar when the door is opened, substantially as described.

2. The combination of a door, a rigid bar pivotally secured thereto, said bar carrying a bell, a spring pressed rod carried by said bar engaging said bell at its upper end when pressed against the action of said spring, and a catch sunk in the floor and having means to engage said rod and said bar, successively, when the door is opened, substantially as described.

3. The combination of a door, a rigid bar carried thereby, a bell carried by said bar, a sliding rod carried by said bar and projecting beneath the free end thereof and adapted to operate said bell, a spring surrounding and normally holding said rod out of engagement with said bell, said rod being provided with a projecting handle for moving said rod to compress said spring, and a catch sunk in the floor and having means for successively engaging said rod and said bar, when the door is opened, substantially as described.

4. The combination of a door, a rigid bar hinged thereto, and adapted to swing up into an inoperative position, a bell carried by said bar, perforated lugs on the bottom of said bar, a sliding rod supported in said lugs, and adapted when moved to operate said bell, the said rod normally projecting beneath the end of said bar, a spring surrounding and engaging said rod and located between said lugs, and a catch sunk in the floor, and having means for successively engaging said rod and said bar, when the door is opened, substantially as described.

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

ELIAS TROETEL.

Witnesses:

DENA FEUERSTEIN,
ABRAHAM MANN.