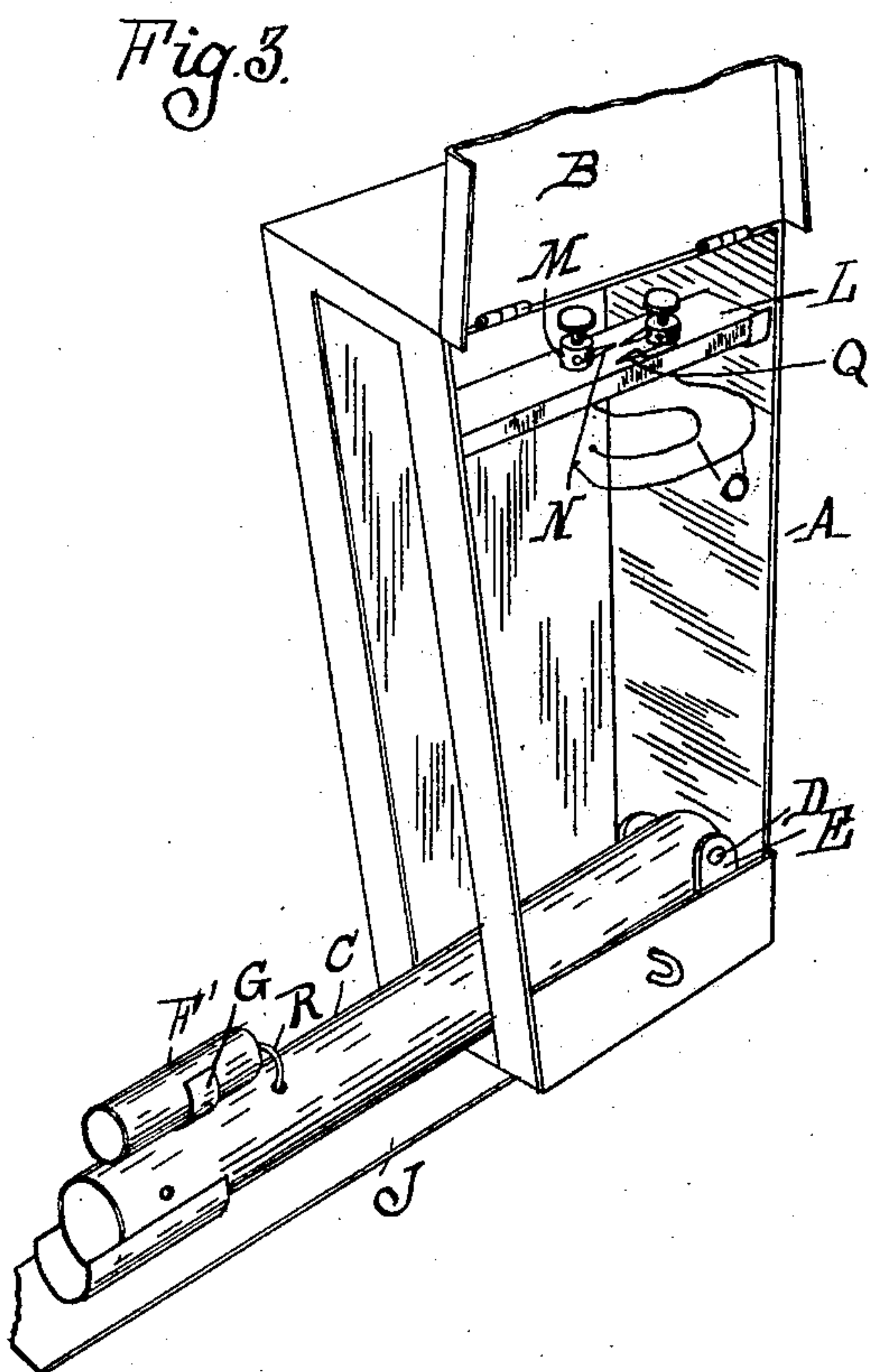
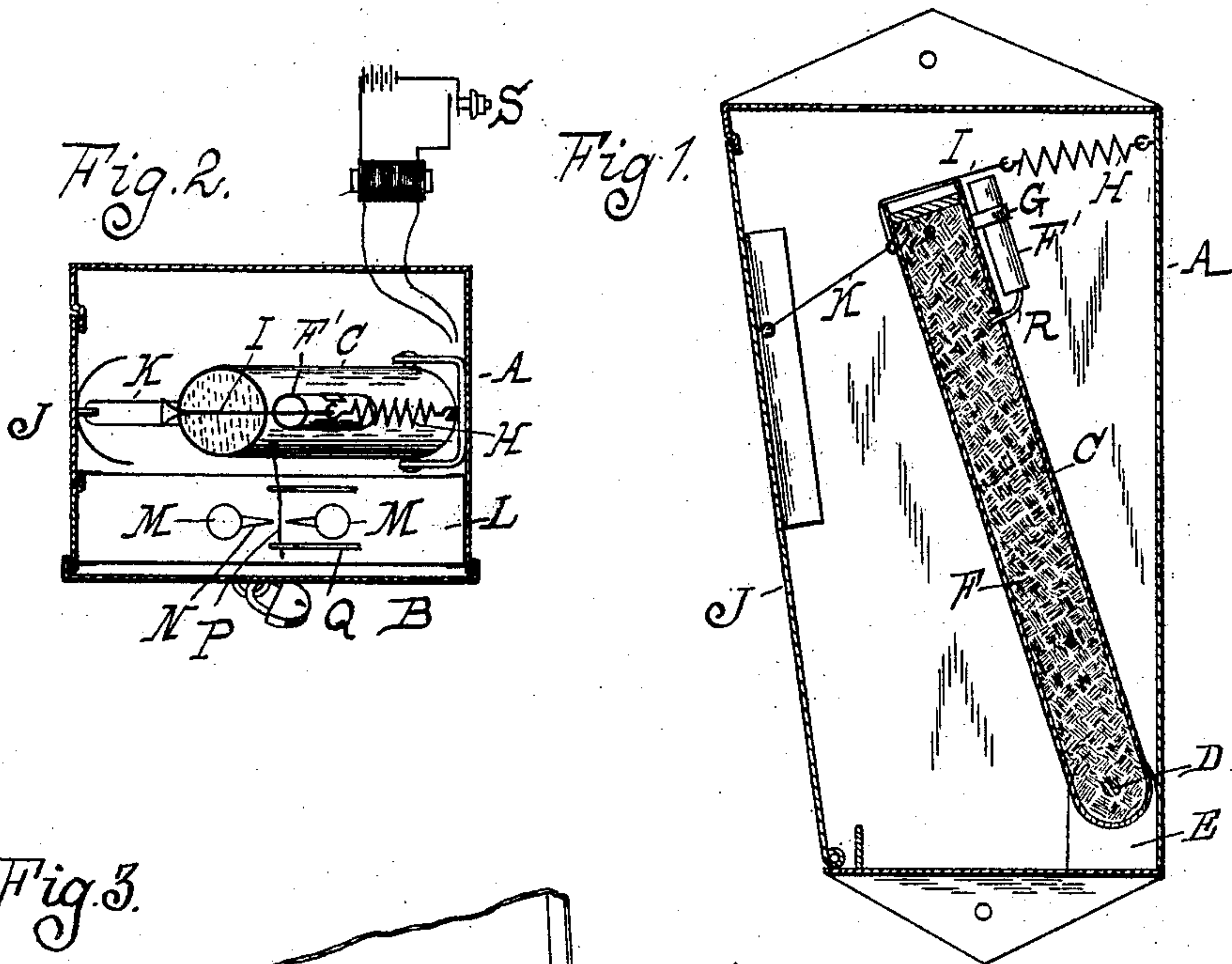


(No Model.)

F. BOSSERT.
SIGNAL ALARM.

No. 606,043.

Patented June 21, 1898.



Witnesses:

Otto H. Canthel
Wm. McPherty.

Inventor:

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UNITED STATES PATENT OFFICE.

FREDERICK BOSSERT, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO
JOHN E. F. UTHES, OF SAME PLACE.

SIGNAL-ALARM.

SPECIFICATION forming part of Letters Patent No. 606,043, dated June 21, 1898.

Application filed December 6, 1897. Serial No. 660,944. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK BOSSERT, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Signal-Alarms, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to that class of signal-alarms especially designed for the protection of homes and their inmates from the visits of burglars or other persons entering with evil intent; and to this end the invention consists in the peculiar construction, arrangement, and operation of a torch and torpedoes or their equivalents inclosed within a case on the outside of the house, with means for lighting the torch and setting off the torpedoes instantly by the operation of an electric-circuit closer, all as more fully hereinafter described and shown in the drawings, in which—

25 Figure 1 is a vertical section of my alarm with the parts in position as required for operation. Fig. 2 is a top plan with the cover of the inclosing case removed. Fig. 3 is a perspective view of the device with the parts in position as in operation.

30 A is the outer inclosing case, which should form a weatherproof housing and have a door B for ready access to the interior.

35 C is a tube or barrel closed at the lower end and open at the upper end. D are trunnions, by means of which this tube is pivotally secured upon a suitable support E on the bottom of the housing.

40 F is an interior filling with which the tube C is charged and which consists of Bengal fire or other like material, which when lighted will burn with a vivid flame capable of being seen at a distance and attract attention.

45 F' is a torpedo of the kind which will explode with a loud report.

G is a clamp or other fastening device whereby the torpedo is secured to the tube C.

H is a coil-spring attached inside the housing.

50 I is a combustible cord connecting the tube C with the coil-spring H across the mouth of the tube C or in any other manner, whereby

the tube is held in inclined position within the casing capable of releasing itself by the burning of the cord.

J is a door in the side of the housing, toward which the tube C is inclined. It is hinged at its lower end and opens outwardly.

K is a connection between the door J to the tube C, by means of which the door is kept closed in the normal position of the parts shown in Fig. 1.

L is a shelf removably secured in the upper part of the housing, and M are binding-posts carried by the shelf and insulated from each other.

N are electrodes, one for each binding-post and in electrical connection therewith and forming between them an electric gap for the production of an electric spark.

O O are electric connections, whereby the electrodes are connected in circuit with a suitable source of electricity (not shown) for producing an electric spark between the electrodes on closing the circuit.

P is a fuse connected to the torch and extending with its free end between the electrodes.

Q are spring-fingers to prevent the accidental displacement of the fuse P.

R is another fuse leading from the torch to the torpedo, and S is a push-button in the electric circuit.

The parts being constructed and arranged as shown and described, they are intended to operate as follows: On pressing the button S an electric spark is produced in the gap between the electrodes, and if the parts are arranged ready for operation, as in Figs. 1 and 2, the spark ignites the fuse P, the latter in turn ignites the charge in the tube, and this in turn destroys the connection I, and thereby causes the tube C to open the door J and fall outwardly with it until it assumes the position shown in Fig. 3. The torch will thus emit a big flame of colored fire which is calculated to burn for several minutes, and as the burning of the fuse reaches the torpedo the latter explodes with a loud report, and thus a twofold alarm is produced.

In practice the device is secured, preferably, at the outside of a house in an elevated position. The electric connections which lead

into the house should be connected to prevent any malicious tampering, and the push-button or switch should be in an easily-accessible position to guard against surprise.

5 The means for operating my device electrically are well known and do not form a part of my invention, and I expressly want it understood that any other means for lighting the fuse may be applied, although I prefer the use
10 of electricity as the most convenient. This may be used in various known ways either to operate the armature of an electric magnet, which in turn operates to release a hammer for exploding a cap, or it may be used to render a piece of fine platinum wire incandescent,
15 and thereby light the fuse, or an induction-coil and battery may be used. In this case the electrodes would be connected to the secondary circuit and the push-button would be
20 in the primary circuit, and the opening and closing of this circuit would then produce a spark.

What I claim as my invention is—

1. In a signal-alarm, the combination of a
25 housing, having an opening in one side, a torch hinged within the housing free to fall in the direction of said opening, a combustible connection securing the torch against falling and adapted to be destroyed by the burning
30 of the torch, and means for lighting the torch.

2. In a signal-alarm, the combination of a housing having an opening in one side, a torch hinged within the housing free to fall in the
35 direction of said opening and project out through the same, a door normally closing said opening and adapted to be opened by the falling of the torch, means securing the torch against falling and adapted to release
40 the same by the burning of the torch and means for lighting the torch.

3. In a signal-alarm, the combination of a housing having an opening formed in one side, a torch hinged within the housing free
45 to fall in the direction of said opening and project out through the same, a torpedo secured to and carried by the torch and adapted to be exploded by the burning of the torch, means securing the torch in inclined position
50 and adapted to release the same by the burning of the torch, a fuse for lighting the torch

and means for lighting the fuse operated by the closing of an electric circuit.

4. In a signal-alarm, the combination of a housing, a torch inclosed therein and hinge
55 connected at its lower end, means securing the torch in inclined position within the housing and adapted to release the torch when burning, an opening in the housing through which the torch is adapted to project, a door
60 normally closing said opening and adapted to be opened by the falling of the torch from its inclined position, a fuse for lighting the torch and electrically-operating means for lighting
65 the fuse.

5. In a signal-alarm, the combination of a housing having an opening in one side, a torch comprising an outer metallic tube hinged at its lower end in the housing and adapted to receive a charge of colored fire
70 and a fuse leading into said charge, a door normally closing the opening in the side of the housing and connected to the torch, a torpedo carried by the torch and adapted to be exploded by the burning of the torch, a
75 combustible connection for holding the torch in an inclined position, electrodes and means for producing a spark between the electrodes, the arrangement being such that the spark
80 lights the fuse, the fuse lights the torch, the torch burns the connection holding it in position and allows the torch to fall open the door and show the light outside the housing and fire also the torpedo.

6. In a signal-alarm, the combination of a
85 housing having an opening in one side, a torch movably secured within the housing, and provided with means, operating automatically, for projecting it out through the opening in the housing, a string or like con-
90 nection of combustible material for holding the torch in its retracted position within the housing and adapted to be severed by the burning of the torch and thereby release the same and means for lighting the torch.
95

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

FRED. BOSSERT.

Witnesses:

M. B. O'DOHERTY,
OTTO F. BARTHEL.