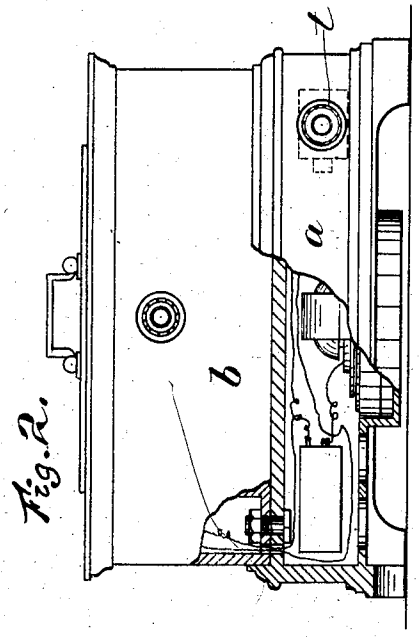
No. 769,240. PATENTED SEPT. 6, 1904.

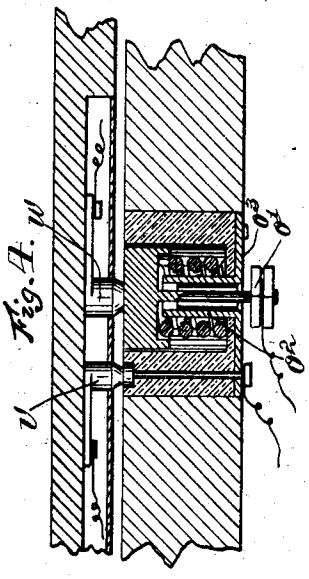
B. F. SPARR.

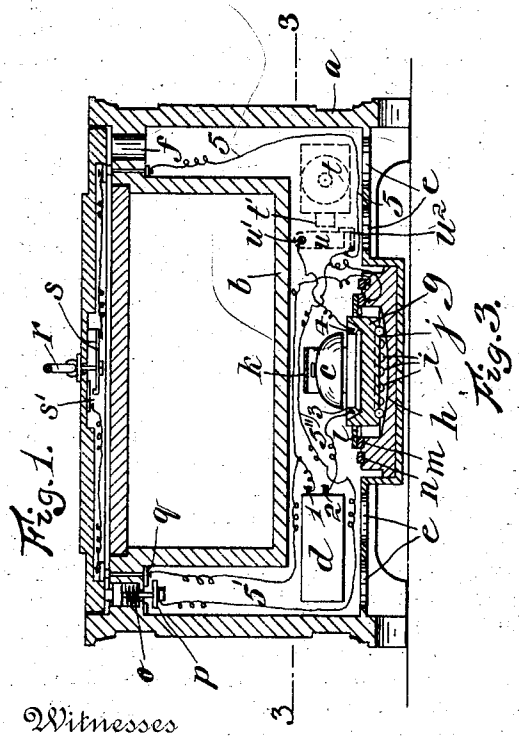
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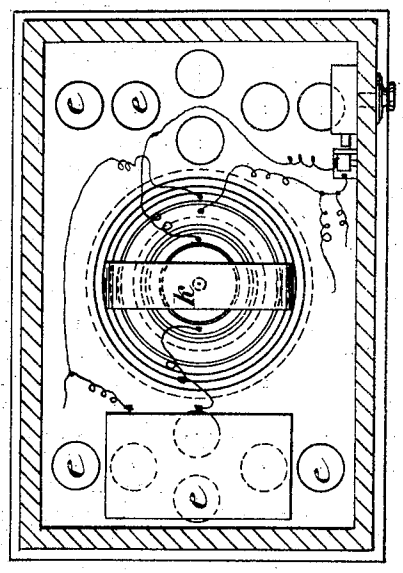
APPLICATION FILED SEPT. 3, 1903.

NO MODEL.









Witnesses
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No. 769,240. Patented September 6, 1904.

UNITED STATES PATENT OFFICE.

BENJAMIN F. SPARR, OF NEW YORK, N. Y.

SAFE.

SPECIFICATION forming part of Letters Patent No. 769,240, dated September 6, 1904.

Application filed September 3, 1903. Serial No. 171,731. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. SPARR, a citizen of the United States, residing in the borough of Brooklyn, city, county, and State of New York, have invented certain new and useful Improvements in Safes, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to boxes, safes, and, in general, to such devices as are intended for receiving articles for safe-keeping.

The object of the invention is to provide such boxes, safes, and other devices with an alarm which shall be set in operation by any unauthorized handling or tampering with the device in which it is placed and which will remain in operation so long at least as the handling or tampering continues.

In carrying out the invention an electrically-operated alarm is suitably located within the box, safe, or the container, and one or more attachments or contact devices to close the circuit through the alarm are provided and are adapted to be operated by any disturbance to the box, safe or other container—such as, for instance, tilting the same, lifting the handle, opening the cover, &c.

The invention will be more fully described with reference to the accompanying drawings in which—

Figure 1 is a view in longitudinal vertical section of a box or casket embodying the invention, the compartment for receiving articles being located entirely within the same. Fig. 2 is a view in front elevation, partly broken away, of another box or casket embodying the invention, the compartment for receiving articles being secured upon the top of the base. Fig. 3 is a view in horizontal section of the base portion of either box, the plane upon which the section is taken being indicated by the lines 3 3 in Figs. 1 and 2. Fig. 4 is a detail sectional view of the cover and one form of contact device adjacent thereto.

Referring to Figs. 1, 2, and 3, the box or container comprises a base portion *a* and top portion *b*, the alarm, which comprises a bell *c*, battery *d*, and electrical connections, being arranged in the base portion, while the compartment for receiving articles for safe-keeping constitutes the top portion. It is immaterial how the compartment *b* be secured to the base portion, whether it be wholly supported within the base portion—as, for instance, it is shown in Fig. 1—or whether it be secured to the top of the base portion, as it is shown in Fig. 2. The shape and construction of the box or container is also immaterial to the invention, except that it is preferable to provide perforations in the bottom thereof (indicated at *e* in Fig. 3) for the escape of the sound of the alarm, and also to provide perforations in the top of the box or container just beneath the cover, (indicated at *f* in Fig. 1.) The latter perforations are provided so that if the perforations *e* should be plugged up the sound will escape through the perforations *f* as soon as the cover is raised. It will be obvious that the alarm may be arranged and constructed in various ways within the container. In the present case the bell *c* is mounted upon a balanced contact device, and its weight serves to throw such device out of center and close a circuit through the alarm when the container is tilted. The balanced contact device may comprise, Fig. 1, a carrier-block *g*, supported upon a concave surface *h* in the bottom of the container by ball-bearings *i*, which are retained in a groove *j* in the block. A band *k* is also provided above the bell *c* and serves to prevent the bell and block from being displaced when the container is turned upside down. In addition to the foregoing the balanced contact device also comprises a metallic ring *l*, secured around the carrier-block *g*, said ring being adapted to connect two contact-rings *m* and *n*, mounted in the base when the carrier-block is moved from its central position within the concavity by the tilting of the container, thus establishing a circuit through the bell. In order to establish a circuit through the bell when the cover is raised, an attachment *o* is placed in the frame or partition of the container adjacent to the cover, said attachment comprising a spring-actuated plunger held firmly against the action of the spring by the cover. When the cover is raised, the spring causes the plunger to rise and bring the contacts *p* and *q* to-

gether, thus establishing a circuit through the bell. The handle r may also be made to close a circuit through the alarm in any suitable way. As shown in Fig. 1, the handle is connected to a spring-finger s, forming one terminal of a circuit through the alarm, which finger is lifted when the handle is raised and contacts with the other terminal, s', of the circuit.

It is a desirable that some means be provided by which the alarm may be prevented from operating when the owner or some authorized person desires to open or otherwise make use of the box or container. For this purpose a combination-lock t is provided upon the exterior of the box or container, by means of which a bolt t' is made to act against a switch-blade u. The switch-blade is pivoted at u' and normally hangs freely in a vertical position, its lower end resting against a terminal u^2, which may be formed, as shown in Figs. 1 and 3, from an L-shaped strip of metal. As will presently be described, the current to the alarm is compelled to flow through the switch-blade u to the metallic strip u^2, and when these two terminals of the switch are thrown out of contact by throwing the lock t into its locked position it will be impossible to complete the circuit through the alarm by the closing of any of the contact devices.

The electrical connections between the several contact devices, the battery, the bell, and the switch will be readily understood upon reference to Fig. 1. As there illustrated, each contact device is adapted to close a circuit through the battery, bell, and switch, the switch being represented in its normal position to transmit current from the blade u to the terminal u^2. If the handle r be raised so that the terminals s and s' are connected, current will flow as follows: to battery-terminal 1, to battery-terminal 2, to bell-terminal 3, to bell-terminal 4, through the switch to conductor 5', and back to the contact device at the handle. If the cover be raised, the plunger of attachment o is released, and current will flow as follows: to battery-terminal 1, to battery-terminal 2, to bell-terminal 3, to bell-terminal 4, through the switch to conductor 5', and back to the contacts of attachment o. If the container be tilted, the ring l will connect the rings m and n, and the circuit will be established as follows: to battery-terminal 1, to battery-terminal 2, to bell-terminal 3, to bell-terminal 4, through the switch by conductor 5'' back to ring m of contacts $m n$.

In Fig. 4 a modification of the attachment o is illustrated. Around the T-shaped plunger o' a sleeve o^2 is arranged, having a broad circular flange o^3. The sleeve and flange form one terminal of a circuit through the alarm, while the spring-actuated plunger, which works within, but is out of contact with, the sleeve forms the other terminal. When the cover is raised, the lower end of the plunger under the action of the spring will contact with the flange o^3 and establish the circuit. When the circuit is thus established, if the plunger should be pressed down in an effort to break the circuit the circuit would be re-established between the top of the sleeve and the top of the plunger. When this form of attachment is employed adjacent to the cover, it is preferable to connect both terminals of the contact device for the handle with the plunger and the sleeve, respectively, and for this purpose contacts v and w may be provided upon the cover, the contact v being connected with one terminal and the contact w with the other terminal of the contact device for the handle. In this way if a circuit be first established through the contact device for the handle and afterward broken on account of the removal of the cover and the contact devices v and w, attached thereto, then the circuit will immediately be remade through the operation of the plunger, as above described.

It will be evident that various other changes may be made in the contact devices and in the arrangement and construction of various parts of the apparatus. All these changes are within the scope of the invention, which is not limited to any particular construction or arrangement.

I claim as my invention—

1. In a box or safe, the combination of a cover, an electrically-operated alarm, and means to close the circuit through the alarm when the cover is opened, said means comprising a plunger connected with one terminal of the circuit and a sleeve around and normally out of contact with the plunger connected with the other terminal of the circuit.

2. In a box or safe, the combination of a cover, an electrically-operated alarm, means to close the circuit through the alarm when the cover is opened, said means comprising a plunger connected with one terminal of the circuit and a sleeve around the plunger connected with the other terminal of the circuit and a handle on the cover adapted to close the circuit one terminal of which is connected with said plunger and the other terminal of which is connected with said sleeve.

3. In a box or safe having a top portion for the reception of articles and a base portion having perforations therein, said base portion containing an electrically-operated alarm balanced therein and adapted to be thrown out of equilibrium to operate the alarm when the box or safe is moved.

This specification signed and witnessed this 29th day of August, A. D. 1903.

BENJAMIN F. SPARR.

In presence of—

JOHN M. SCOBLE,

LUCIUS E. VARNEY.