2 Sheets—Sheet 1.

J. B. KINGHAM.

ALARM-SAFES.

No. 195,219. Patented Sept. 18, 1877.

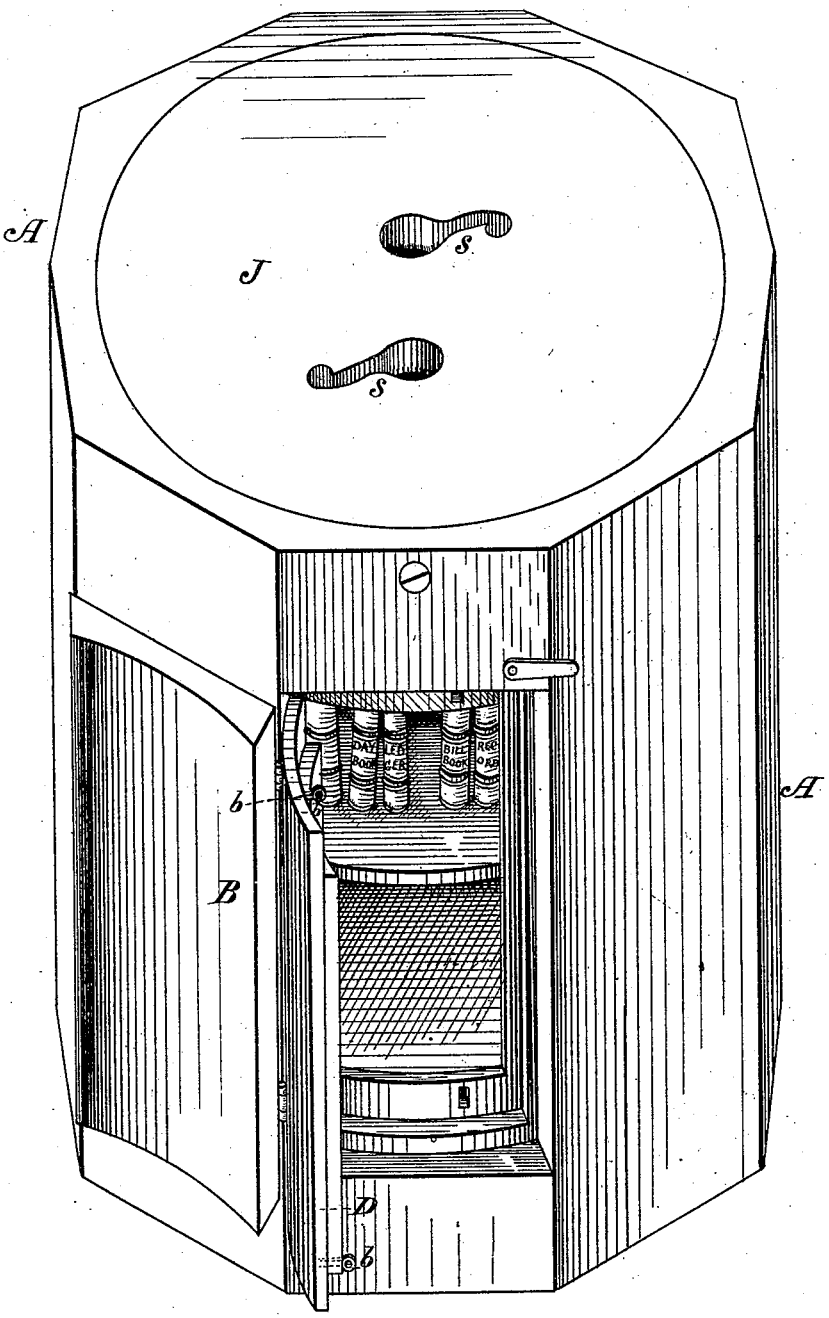

Fig. 1.

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2 Sheets—Sheet 2.

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Fig. 2.

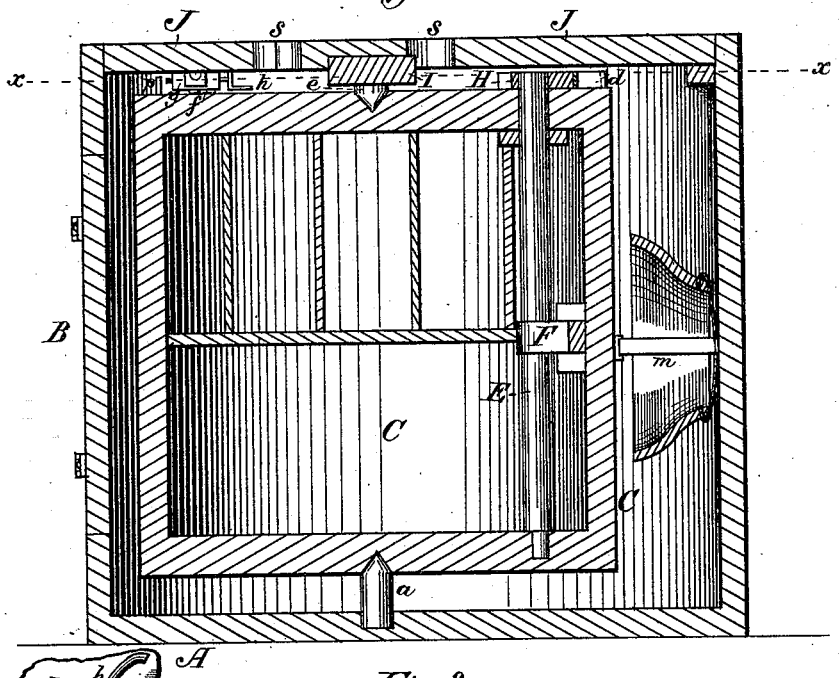
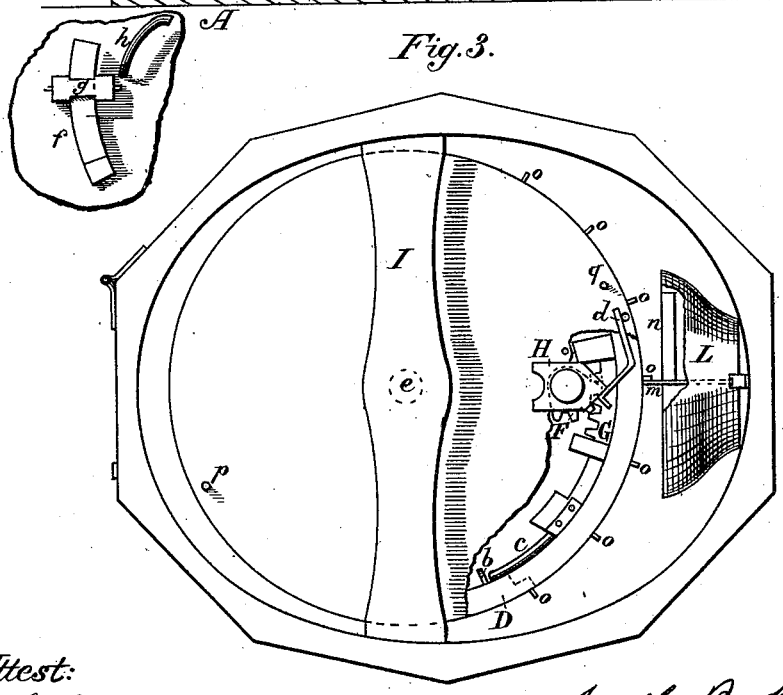


Fig. 3.



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UNITED STATES PATENT OFFICE.

JACOB B. KINGHAM, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN ALARM-SAFES.

Specification forming part of Letters Patent No. **195,219**, dated September 18, 1877; application filed May 20, 1876.

To all whom it may concern:

Be it known that I, JACOB B. KINGHAM, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Alarm-Safes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of safes used for securing money and other valuables in which an attempt to open them causes an alarm to sound, thus giving timely notice to any person within hearing-distance of the act, and which are commonly called "alarm-safes." They may also, if desired, have a fire-proof outer case, the protective qualities of which will be much enhanced by the air-space surrounding the inner case, converting the space between the two into a non-conducting chamber; and the invention consists in the construction and arrangement of the different parts of the safe, as will be hereinafter fully described, and then specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the safe with the doors open, showing the interior. Fig. 2 is a vertical longitudinal section, and shows the relative arrangement of the parts to each other. Fig. 3 represents a horizontal section on the line *x x* of Fig. 2, a part of the inner case being broken away to show the locking mechanism.

A represents the outer case, which may be constructed in the ordinary manner of forming the walls of safes, either fire or burglar proof, or both, as may be found most desirable. Its door B may be provided with the combination-lock in ordinary use, or with any other suitable fastening. This case is elliptical in its horizontal section, and is provided in the center of that end of the ellipse in which the outer door is situated with a step or bearing, *a*, which supports the internal case C, and upon which it revolves. This case C is circular, and provided with the door D, corresponding in curvature with the periphery of the case, and having two staples, *b*, attached, which, when the door is closed, pass through mortises in the rabbet of the case, against which the door closes.

A vertical shaft, E, is placed within the case C, and carries a toothed segment, F. This segment gears into the curved rack G, which carries the sliding bolts *c c*. It will be apparent that a partial revolution of the shaft E will cause the bolts to enter the staples *b b* when the door is closed, or to be retracted therefrom in accordance with the direction in which the shaft is turned. The upper end of this shaft carries a tumbler, H, one end of which is triangular in form, and bears against the spring *d*, in such a manner as to retain the sliding bolts *c c* in either a locked or unlocked position until they are changed by the application of some external force to the tumbler.

A cross-bar, I, carrying the downwardly-projecting stud *e*, is placed across the upper part of the outer case, the stud forming one of the bearings upon which the inner case revolves. Secured to the under side of the covering-piece J, which forms the top of the outer case, are the locking devices, consisting of the hook-lever *f*, pivoted within the strap *g*, and the spring-guide *h*. The hooked end of the lever falls by its own gravity, catching the pin *p*, and prevents the inner case C from turning when the latter is turned in such a manner as to take the doors out of apposition to each other.

A bell or gong, L, is attached to the inner side of the outer case, occupying the space between the inner and outer cases, the elliptical form of the latter affording sufficient space for its introduction. A spring, *m*, is secured to the bottom of the bell or gong, and projects a short distance beyond its mouth, having attached to one of its sides, and projecting at right angles thereto, the hammer *n*. At regular distances pins or cogs *o* are inserted in the periphery of the case C, which, when the latter is turned to the right or left, strike the end of the spring *m*, carrying it with them for a short distance before releasing it; but when released, its recoil causes the hammer *n* to strike the side of the bell or gong, thus causing an alarm.

Two pins, *p* and *q*, are inserted in the top

of the case C, which, when it is revolved, strike against the bar I, thus preventing a complete revolution of the same. Two or more orifices, *s*, are formed in the top J, and serve as openings for the emission of sound, as well as to allow of the insertion of a key for the purpose of unlocking the safe, if desired.

The mode of operation is as follows: The safe being open, to close it the inner door is shut, and that part of the safe being turned to the right until the door of the inner safe is diametrically opposite that of the outer case, the door of the latter is then closed and secured. It will now be apparent that, in order to reach the door of the inner safe after that of the outer case is opened, the lever *f* must be raised from the pin *p* by a key, and the inner safe turned through one-half of a complete revolution; and that during the time this is being done the bell or gong will be subjected to a series of blows from the hammer, causing it to ring steadily until the operation is completed.

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

1. The combination of the internal revolving circular safe with the elliptical stationary outer case, substantially as and for the purpose specified.

2. The revolving circular safe C, provided with the projecting pins *o*, in combination with the bell or gong L, and the devices for ringing it, as specified.

3. The elliptical case A, provided with the top J, the latter being pierced with orifices *s*, as and for the purpose shown and described.

4. The elliptical outer case, provided with the pierced top and the cross-bar, in combination with the circular revolving safe, having projecting pins, and the bell or gong, substantially as and for the purpose specified.

In testimony whereof I have hereunto affixed my signature this 7th day of May, 1876, in presence of two witnesses.

JACOB B. KINGHAM.

Witnesses:

W. D. C. CURTIS,

A. LOUISE EMERSON.