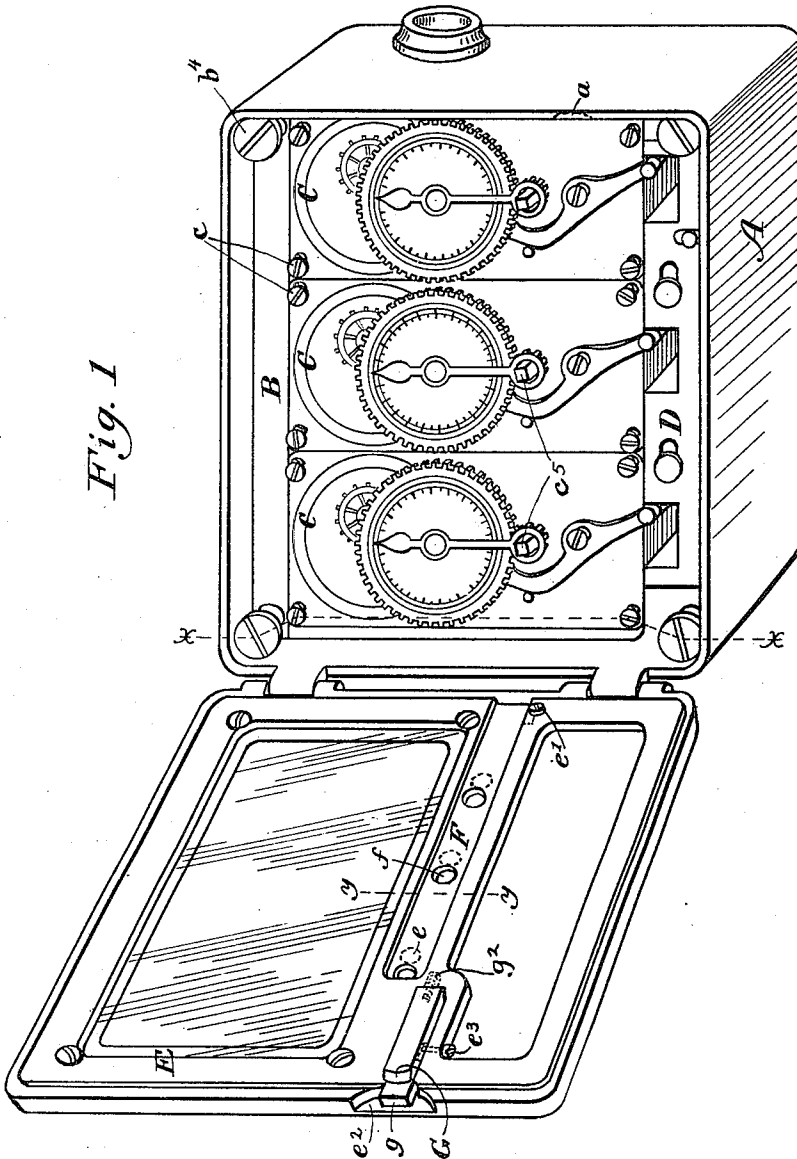


E. M. BENHAM.
TIME LOCK.
APPLICATION FILED MAY 15, 1916.

1,205,147.

Patented Nov. 21, 1916.
2 SHEETS—SHEET 1.

Fig. 1



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Fig. 2.

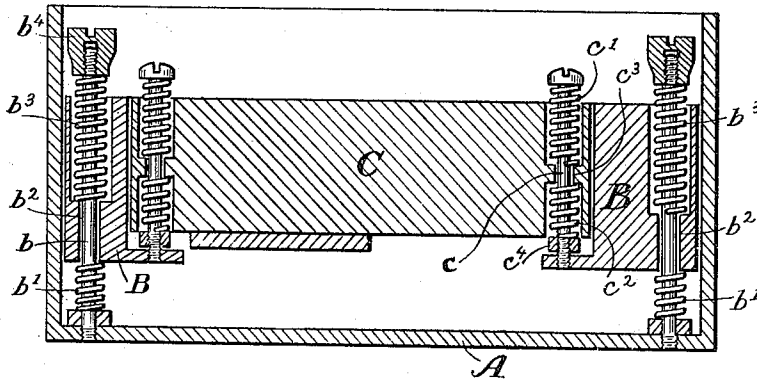


Fig. 3.

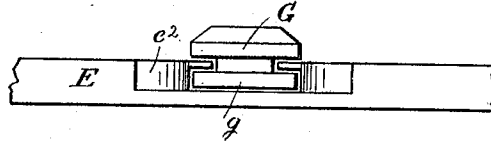
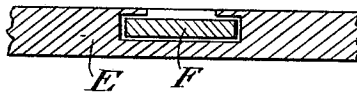


Fig. 4.



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UNITED STATES PATENT OFFICE

EDGAR M. BENHAM, OF NORWOOD, OHIO, ASSIGNOR TO THE NYDIA BANK LOCK COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

TIME-LOCK.

1,205,147.

Specification of Letters Patent.

Patented Nov. 21, 1916.

Application filed May 15, 1916. Serial No. 97,569.

To all whom it may concern:

Be it known that I, EDGAR M. BENHAM, a citizen of the United States, residing at Norwood, in the county of Hamilton and State of Ohio, have invented new and useful Improvements in Time-Locks, of which the following is a specification.

My invention relates to time locks for safes, etc.; and particularly to the means for protecting the delicate watch movement actuated mechanisms that constitute the motive force for throwing bolts or intermediate device. Such protecting means comprise: (a) a casing easily opened, but incapable of being accidentally opened; (b) a casing affording simple means of access to the key posts for winding, but having a dust-proof closure; and (c) effectively cushioned supports for the movement mechanisms, protecting them from injury by jarring and making it possible to remove an entire set of movements or a single movement at will. The single movement receptacles are interchangeable, and mounted on a table; and the tables for groups of movement receptacles are interchangeable, so that either one or more movement units or a set of movement units on their table may be removed and replaced by others, as when the movements are to be cleaned or repaired. The blocks are spring-mounted on the table, and the table is spring-mounted in the outer casing, so that all shocks as from sledging are absorbed and rendered harmless to the movements. These improvements are combined with any usual movement and bolt casting mechanism, and casings for same.

The particular embodiment of my invention selected for illustration, is shown in the following drawings, in which:—

Figure 1 is a front view in perspective, of my improved time lock complete, with the door of the case opened; Fig. 2 is a section through the case, table and one of the movement unit receptacles on the line $x-x$ of Fig. 1. Fig. 3 is a detail of the catch on the door of the case; and Fig. 4, a detail, is a section through the slide and case on the line $y-y$ of Fig. 1.

Referring to the drawings, the case A adapted to be fastened to the safe door in the usual manner, and ordinarily made of

metal, is fitted with a table B held in place by posts b , screwed or otherwise fastened to the back of the case on the inside near its corners. The table is seated upon springs, b^1 . Holes, b^2 , through the table, are large enough to freely permit vertical movement of the table on the posts, and these holes are enlarged above to admit the springs, b^3 . Nuts b^4 suitably compress these springs and hold the table yieldingly.

The movements and throw-bar actuating mechanisms may be of the usual or any other type, each mounted in a separate receptacle C. It is the general practice to put three such movements in a case, but whatever the size and number, the case and table will be made accordingly. Each receptacle is, as common, held in place by a post c , near each corner and screwed into the table B. Each of these posts is provided with a spring, c^1 , above, and a spring, c^2 , below the shoulder c^3 , left in the post hole of the receptacle. Washer nuts c^4 are used to suitably compress these springs and as the posts, c , loosely pierce the shoulders c^3 the receptacles are yieldingly held to the table.

The throw-bar D is of the usual type, and this together with the means for actuating the bar and winding the movements require no description.

The case is provided with a door E with holes e (shown in dotted lines in Fig. 1), directly above the key posts c^5 when the door is closed. A slide F mortised into the door is provided with holes f which register with the holes e when the slide is withdrawn to the limit of its movement fixed by the screw e^1 . The slide covers the key-holes when pushed in as shown in Fig. 1, and keeps dust and dirt out of the case, while allowing the movements to be wound without opening the case door when the slide is withdrawn.

The door E is provided with a catch G adapted to engage the notch a in the case, and keep the door closed. The door edge is undercut so that the push plunger g is below the side of the case and door edge when the door is closed, and is opened by inserting the edge of a wing or flat portion of the key in the undercut notch e^2 of the door. A coiled spring g^2 tends to keep the catch out for engagement and a screw e^3 limits the movement of the catch.

I claim as my invention and desire to secure by Letters Patent of the United States:

1. In time-lock mechanism, in combination with an inclosing general casing for the bolt controlling mechanism; a table or support telescopically arranged and spring-mounted; and an independent receptacle for a clock movement, telescopically arranged and spring-mounted within and upon the table or support, said table or support and independent receptacle being contained within said casing.

2. In time-lock mechanism, in combination with a containing casing, a table or support spring-mounted in and in relation to said casing; and a plurality of auxiliary tables or receptacles each independently

spring-mounted upon and in relation to said first mentioned table or support and adapted to carry clock-movements.

3. In time-lock mechanism, in combination with a containing casing a removable spring-mounted table or support and a plurality of removable clock-movement-receptacles each spring-mounted upon and in relation to said table or support.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EDGAR M. BENHAM.

Witnesses:

CAMPBELL HOLNESTAR,
WALTER A. KNIGHT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."