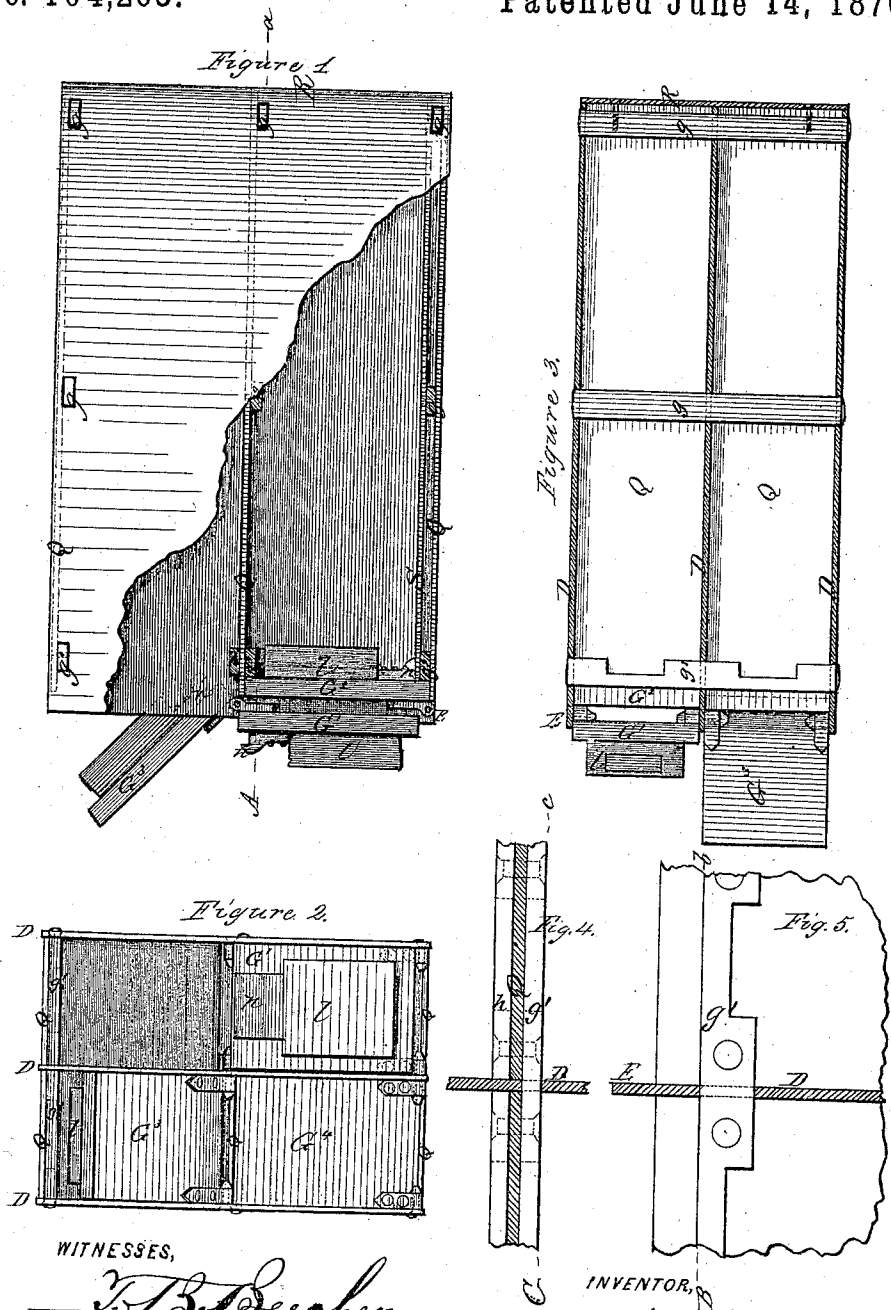


W. H. BUTLER.
SAFE DEPOSIT BOX.

No. 104,263.

Patented June 14, 1870.



WITNESSES,
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IMPROVEMENT IN SAFE-DEPOSIT BOXES.

Specification forming part of Letters Patent No. 104,263, dated June 14, 1870.

To all whom it may concern:

Be it known that I, WILLIAM H. BUTLER, of the city, county, and State of New York, have invented certain new and useful Improvements in Safe-Deposit Boxes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

My improvements relate to the manner of constructing the small safes which are let to separate individuals in safe-deposit institutions. These safes or "safe-deposit boxes" are built together in systems or nests, which occupy a portion of, or the entire side or sides of, a room. Each small safe is provided with a separate door, through which is introduced the drawer or tin box containing the papers, securities, &c. It is desirable to make the boxes in a secure, simple, and cheap manner, which will utilize as much space as possible.

In a usual method of construction a series of pigeon-holes are formed of iron plates by running long plates parallel with each other to form the horizontal or vertical divisions, and connecting such plates by shorter ones, which are either flanged at their edges and riveted to the others or left flat and secured with angle-iron. These plans involve considerable labor and expense and waste a large amount of space. Generally, also, a casting is secured, by means of lugs thereon, to the front of the boxes, to form the door-frames, and materially reduces the size of each opening.

In my improved boxes the horizontal divisions are formed of long plates and the vertical divisions by short plates set between the horizontal ones, and the doors are hung on pintles secured in projecting portions of the latter, so that no door-frame is necessary. The horizontal plates are tied together by flat bars passing vertically through holes in the plates, the ends of which bars are riveted over outside the top and bottom plates. To these bars, also, the vertical partitions are riveted. The front tie-bars answer, moreover, as striking-bars for the doors.

In the drawings, Figure 1 represents a plan view of a system or nest of boxes containing four units, the top plate being partially cut

away to show the interior of the upper boxes. Fig. 2 is a front view of the same with the several doors in different positions. Fig. 3 is a longitudinal vertical section through A a in Fig. 1. Fig. 4 is an enlarged view, showing a vertical cross-section at B b in Fig. 5 and the edges of the bars against which the doors strike. Fig. 5 is also an enlarged view, showing a vertical longitudinal section at C c, Fig. 4, and the flat side of one of the striking-bars.

D D D are horizontal plates, which form the top and bottom walls of the boxes. These plates may be extended to the right or left to connect any desired number of boxes. Q Q Q are the vertical partition-walls, which are made of iron plates equal in width to the height of the single boxes.—By the sides of the vertical partitions, at intervals across the box, are placed vertically flat tie-bars *g g g'*, &c., which pass through mortises in the horizontal plates D, D, and D, and are riveted at their ends over the outside of the top and bottom plates, or into suitable countersinks in such plates; or said bars may be provided with screwed ends, on which nuts may be placed. To the flat sides of the bars *g g g'*, &c., are riveted or screwed the vertical plates Q Q Q, so that these bars tie the whole structure firmly together.

The rear of several of the boxes is generally covered by one large plate, which is secured by screws passing through it into the edges of the nearest bars *g g g'*.

The horizontal plates D D D extend farther in front than the vertical ones, and to the projecting portions or ledges E E the doors G' G² G³ G⁴ are hinged. The front bars, *g' g'*, &c., are set back from the ends of plates Q Q a distance equal to the thickness of the doors G' G², &c., and form not only tie-rods but striking-bars, against which the doors shut. These front bars are also provided with mortises or notches on their rear edges, as shown in Figs. 3 and 5, which receive at one side the bolts of the locks *l l* and at the other the dogs or catches *n n*.

The tie-bars *g g* are arranged inside of the outside partitions, and usually on one side only of the inner partitions. The number of these bars may be varied according to circumstances and the strength required.

Each front bar, g' , on one side of an inner partition, runs through the horizontal plates, and extends from top to bottom, forming both a tie and striking-bar. On the other side, however, of the inner partition the striking-bar may be a full length tie-bar, or a short piece, h , equal in length to the depth of a single box, and simply riveted through the plate to the tie-bar on the other side.

In Figs. 4 and 5, g' is the combined tie and striking bar, and h the short striking-bar.

The door-hinges are on the outside in the usual way, and the pivots or pintles upon which they turn pass through the projecting portions E of the horizontal plates at points nearly opposite the centers of the vertical partitions. The effect of this is that each door, when shut, is flush with the ends of said vertical partitions Q Q, as shown by G^2 , and in opening just clears the hinges of the adjoining door and swings around flat against the closed door of the box on the other side into the position shown by G' , thus leaving the passage into the box entirely unobstructed.

In any box which has bars $g g$ on one side only, the drawer or tin-box in which the papers are kept may be pushed into place without obstruction from the bars by crowding the box toward the smooth side. When the bars $g g$ occur on both sides of the interior, I in some instances secure a thin plate of metal inside the bars $g g'$, as shown at S in Fig. 1, which furnishes a smooth surface to guide the inner box back into its place.

When desired, the bars $g g$ may be covered in the same manner in all the boxes. The plate S is perforated opposite the notches in g' , so that the bolt of the lock and the dog n will catch into the striking-pieces.

By the method of construction herein shown and described, the entire space between the horizontal plates is utilized, as none is occupied by a door-frame, and the side space wasted is no more than is necessary for the striking-pieces. The construction is also strong, exceedingly simple, and costs much less than any other with which I am familiar.

My plan of construction may be modified by running the long plates vertically and the short plates and tie-bars horizontally.

I claim as new and desire to secure by Letters Patent—

1. The tie-bars $g g g'$, &c., combined and connected with the top and side plates of the box, substantially as described.

2. The bar g' , so combined and arranged as to act as a tie-rod, to secure together the top and side plates of the box, and also as a striking-piece for the door, substantially as described.

3. The inner plate, S, combined with the bars $g g' g'$, and arranged substantially as and for the purposes specified.

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Witnesses:

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