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WALL SAFE.
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1,050,776.

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Fig. 1.

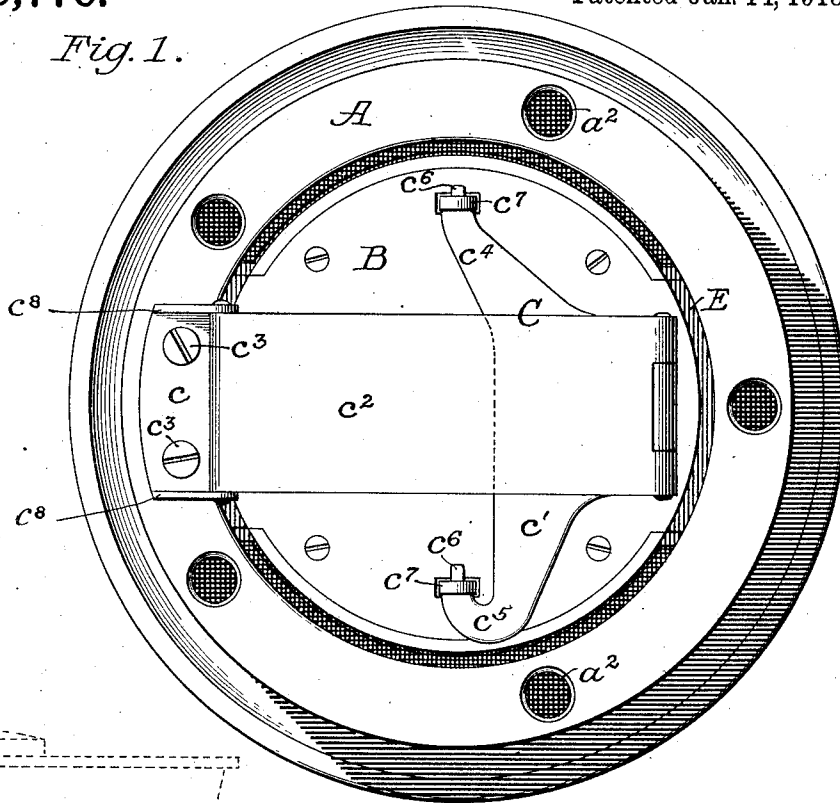
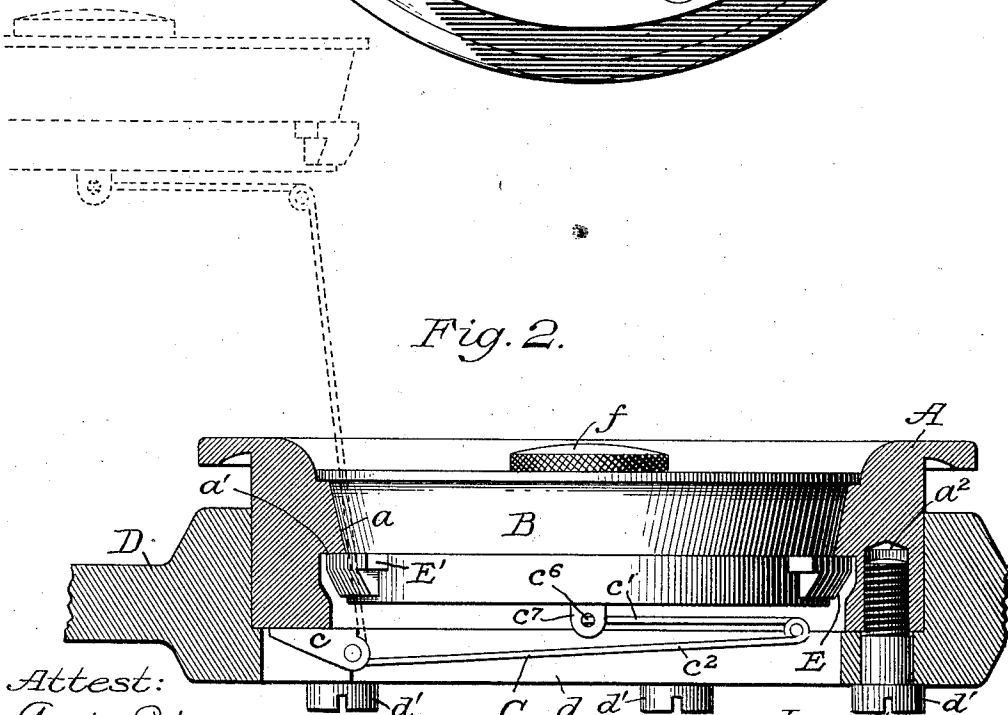


Fig. 2.



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WALL-SAFE.

1,050,776.

Specification of Letters Patent.

Patented Jan. 14, 1913.

Original application filed April 4, 1908, Serial No. 425,239. Divided and this application filed December 27, 1910. Serial No. 599,623.

To all whom it may concern:

Be it known that I, HARVEY C. LOWRIE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Wall-Safes, of which the following is a specification.

My invention relates to safes or strong boxes and more particularly to the mounting of the door by means of an internal hinge so that the door may be swung away from the opening to leave the latter practically unobstructed.

My said invention also relates to a door and door casing which are connected together by a hinge to form a unitary grouping which may be simultaneously applied and secured to a wall safe after the latter is embedded in a wall, this application for patent being a division of an application filed by me April 4, 1908, Serial Number 425,239.

The invention consists in the novel features hereinafter described and particularly pointed out in the appended claims.

Referring to the drawings furnished, and forming a part of this specification: Figure 1 is a rear view of a door and door casing embodying my invention, and Fig. 2 is a view showing the door and casing applied to a safe, the door being shown in edge view and the door casing and safe wall in section.

A represents a door casing which surrounds the opening of a wall safe or other receptacle D, said casing, together with the door B, being designed to be attached and secured to the safe after the latter has been embedded in a wall, the object being to permit completion of the wall before applying the door and door casing, so that the latter may not be subjected to possible injury during building operations.

While I have shown a door and door casing of circular form, it is to be understood that the invention is applicable to a door and casing of any desired shape, and that it is immaterial how the casing may be secured to the safe. As illustrated in Fig. 2, the

wall of the safe D is provided with an opening d , the surrounding wall of which is stepped to form a seat for the door casing A. Through the stepped portion of the safe wall is a series of holes for the reception of bolts or screws d' , the threaded ends of which enter screw threaded holes a^2 in the door casing for securing the latter to the safe. The casing A is provided with a conical seat a which terminates in an annular shoulder a' , the door B being formed to accurately fit said seat, and the shoulder a' cooperating with bolts E, E', which secure the door to the casing.

The door and casing are detachably connected together by means of a three-leaf hinge C, one leaf or member c of which is secured to the inside of the casing A, the leaf c' at the opposite end of the hinge being detachably connected to the door B, so that when the door is closed, the hinge is concealed from view. The two end leaves c and c' of the hinge are connected together by a central leaf or member c^2 , the connections being ordinary hinge connections, as clearly shown. The hinge leaf c is secured to the casing A by means of screws c^3 and is provided with perforated lugs c^8 which project over said opening, to bring the axis of the hinge joint between the leaves c and c^2 approximately in line with the inner edge of the door casing, so that the hinge will offer little or no obstruction to the safe opening when the door is removed therefrom. The central hinge member c^2 should be of sufficient length between the hinge joints to support the door when in open position well away from the door casing or from the wall in which the safe may be embedded, so that there will be little liability of the door striking and marring the wall, and should extend well beyond the center of the door opening, and preferably close to the edge of the door which is remote from the lugs c^8 , to permit the door when opened to swing well to one side of the opening. The hinge leaf c' has its outer end forked to form two arms c^4 , c^5 , each of which is

provided with an upwardly projecting pin or pintle c^6 , the two pins c^6 being in vertical alinement. The door B is provided with two lugs c^7 , c^7 , which are perforated to receive the pins c^6 , and which are so located with reference to the door, that the latter will be centrally supported by the hinge. By the construction shown, the door may be moved outwardly in a direct line from the casing, and then swung to one side, as illustrated in dotted lines in Fig. 2, the direct outward movement being necessary with a door and casing of the character shown. It is also to be noted that the door may be readily lifted from its hinge support, and this is specially important in view of the fact that the doors of my wall safes are made interchangeable, and with the hinge support here shown, a door may be removed and another substituted without the use of tools, and without a separation of any permanent connection, so that there is no liability of derangement of adjustment.

When a door is hung on the hinge support, it is of importance that it be hung right side up, so that the index (not shown) on the front of the door will be at the top instead of at the bottom of the dial (not shown), through the medium of which the unlocking of the door is controlled. For this purpose, the lugs c^7 , c^7 , at the rear of the door are placed at different distances from the center of the door, so that should the door be hung on its hinge support in an inverted position, it cannot enter the door casing.

The door B is locked to the casing A by means of two oppositely mounted spring projecting bolts E, E', which project from the opposite sides of the door and engage the shoulder a' on the casing. Said bolts are controlled by a knob f , as disclosed in my copending application for patent hereinbefore referred to. It is sufficient for the purposes of this specification to state that the particular locking mechanism referred to is of the combination or permutation type which is operated by predetermined rotations of the knob f , through the medium of which the bolts are retracted.

By making the door casing a separate part of the safe structure, to be applied after the safe or receptacle has been built into a wall, and the latter completely finished, there is a material saving in cost of manufacture and hurried orders for safes may be more quickly filled. The safes or receptacles usually require little or no machining, and can be quickly made and supplied to builders, and the door casings and doors constructed at some future time to be applied to the safes only when required for use. By making the casing, door and hinge connection a single unitary structure, all

of the parts may be accurately fitted and adjusted so that they may be simultaneously applied to the safe structure by any mechanic without liability of injury or derangement of parts.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is—

1. The combination with a door, of a frame or casing for the door, and an internal hinge connecting the door with the casing, said door, casing and connecting hinge comprising a unitary grouping adapted to be secured to a wall safe, substantially as described.

2. The combination with a door, of a frame or casing for the door, and an internal hinge secured to the frame and detachably secured to the door to permit the ready removal of the latter when the door is open, said door, casing and connecting hinge comprising a unitary grouping adapted to be secured to a wall safe, substantially as described.

3. The combination with a circular door, a frame for the door, and an internal extension hinge connecting the door with the frame, said door, frame, and connecting hinge comprising a unitary grouping, of a wall safe having an opening and securing means for mounting the grouping at the opening to simultaneously attach the frame, door and connecting hinge in position.

4. The combination with a door of a frame or casing for the door adapted to be secured to a wall safe, a plurality of bolts carried by the door and adapted to engage opposite sides of the casing for locking the door thereto, means for operating the bolts, and a hinge mounted on the inside of the door and connecting the door to the casing, said hinge being constructed to permit the door to move out of the casing in a direct line and then swing to one side of the casing, substantially as described.

5. The combination with a door of a frame or casing for the door adapted to be secured to a wall safe, a hinge connecting the door to the casing, said hinge comprising two end leaves and a central connecting leaf, one of the end leaves being secured to the inside of the casing, and the other end leaf being secured to the rear of the door.

6. The combination with a door and a frame or casing for the door adapted to be secured to a wall safe, of a three leaf hinge comprising two end leaves and a central connecting leaf, one of said end leaves being connected to the inside of the casing, and the other end leaf being provided with two pins in vertical alinement, the rear of the door being provided with two perforated lugs in which said pins are inserted.

7. In a wall safe provided with a door

opening and a door for closing said opening, the combination of lugs on the inner face of the wall surrounding said opening, said lugs being disposed at one side of said opening and projecting over said opening, a hinge member pivotally supported at one end by said lugs and having its opposite end adjacent the opposite side of said opening when the door is in closed position, and

means pivotally connecting the said end of said hinge member to said door.

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

HARVEY C. LOWRIE.

Witnesses:

A. S. KATZ,

J. B. MALING.

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