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SAFE.

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1,185,539. Patented May 30, 1916.

Fig. 1.

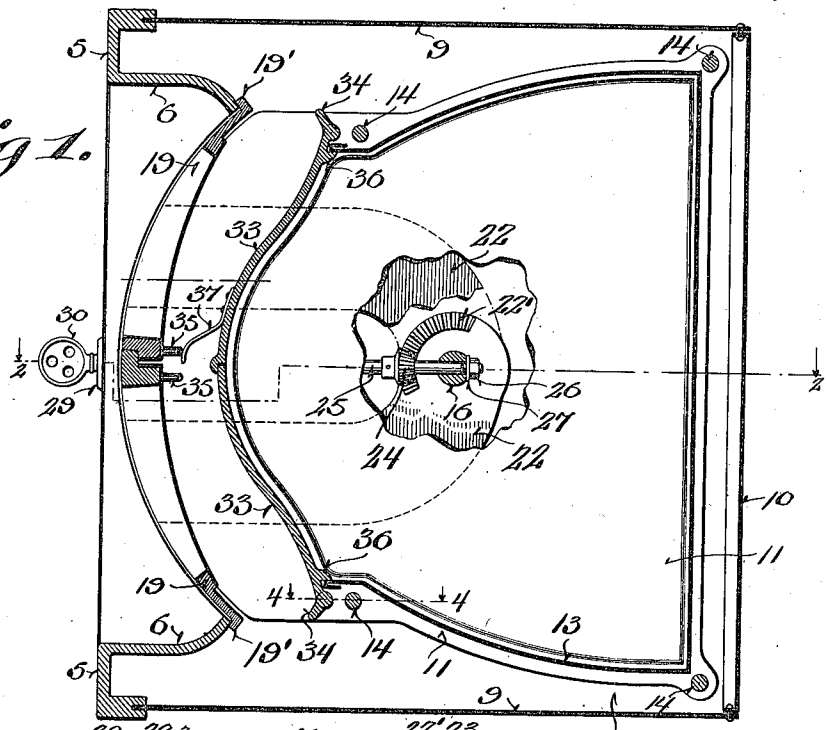


Fig. 2.

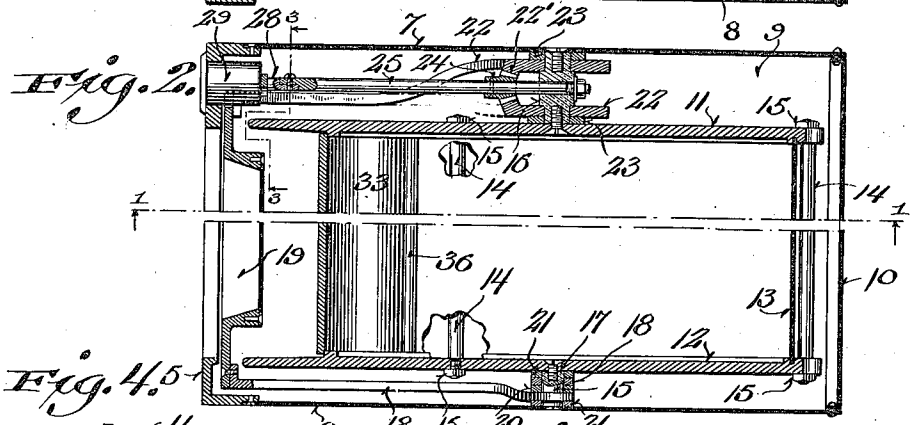


Fig. 4.

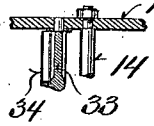
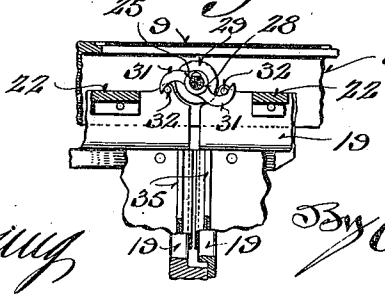


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEPH RAUWALD, JOHN RAUWALD, JOSEPH G. RAUWALD, EDMUND H. RAUWALD, AND FRANK RAUWALD, OF MILWAUKEE, WISCONSIN, ASSIGNORS TO SAID JOHN RAUWALD.

SAFE.

1,185,539. Specification of Letters Patent. Patented May 30, 1916.

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To all whom it may concern:

Be it known that we, JOSEPH RAUWALD, JOHN RAUWALD, JOSEPH G. RAUWALD, EDMUND H. RAUWALD, and FRANK RAUWALD, all citizens of the United States, and residents of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Safes; and we do hereby declare that the following is a full, clear and exact description thereof.

Our invention consists in what is herein particularly set forth with reference to the accompanying drawings and pointed out in the claims of this specification, one of its objects being to economically provide altar tabernacles having advantages over the one disclosed in Letters Patent No. 841,180, of January 15, 1907. However the structure disclosed may be made to serve as a safe for various valuables, and when closed, its interior is dustproof, fireproof and ordinarily burglar-proof.

Figure 1 of the drawings represents a horizontal section of a structure in accordance with our invention on the plane indicated by line 1—1 in Fig. 2, looking up, the top of an inner chamber of the structure be partly broken away; Fig. 2, a vertical section of said structure partly broken away, the plane of the section being indicated by line 2—2 in Fig. 1; Fig. 3, a rear elevation of a fragment of the structure partly in section as indicated by line 3—3 in Fig. 2, and Fig. 4, a partly sectional view of another fragment of said structure, this view being indicated by line 4—4 in Fig. 1.

Referring by numerals to the drawings, 5 indicates a cast-metal frame constituting the front of an angular all metal casing, and the frame is provided with rearwardly extending jamb-flanges 6 having curved inner ends. Sheet-metal top and bottom plates 7, 8, respectively of the casing are bolted or otherwise rigidly secured on rear upper and lower ledges of the frame, and sheet-metal side walls 9 of said casing are fitted in vertical grooves of rearwardly extending sides of said frame. The top-plate 7, bottom plate 8 and the side walls 9 are riveted or otherwise rigidly secured to inturned flanges of a sheet-metal rear wall 10 of the casing.

Within the casing aforesaid is a chamber comprising cast-metal top and bottom plates 11, 12, respectively and a sheet-metal shell 13 constituting the side and rear walls of the chamber, upper and lower edges of the shell being engaged with grooves provided in said plates. Outside of the shell 13, the plates 11 and 12 are held together by bolts 14 and nuts 15. The chamber plates 11, 12 and the casing plates 7, 8, are bolted to intermediate pivots 16, 17, respectively. The chamber is supported in the casing clear of the top, bottom and walls of the same, and thus an airspace is had all about said chamber.

The lower pivot 17 is for oppositely offset ends of a pair of cranks 18 for the most part on the same horizontal plane, and each crank constitutes a carrier for a curvilinear sliding door 19, the door being bolted to a flange of the crank. The doors 19 serve to close the front of the casing, their closing movement being limited by the jamb-flanges 6 of the frame 5 in the paths of flanges 19′ of said doors. The oppositely offset ends of the door-carying cranks 18 are spaced apart by a washer 20, and another washer 21 is interposed between each door-carrier and the adjacent bottom of the casing or chamber.

The upper pivot 16 is for oppositely offset ends of a pair of cranks 22 for the most part on the same horizontal plane, said pivot being shouldered to form bearings for the cranks, and a washer 23 is interposed between each crank and the adjacent top of the casing or chamber. A flange of each crank 22 is bolted to a door 19, and a bevel-gear segment 22′ on the offset end of each crank engages a bevel-gear pinion 24 fast on a rod 25 that has bearing in the pivot 16, turning of the rod serving to actuate the doors in opposite directions to open or close the casing. The pinion 24 of the rod 25 is adjusted in the segments of the cranks 22 by means of a nut 26 that turns on the inner end of said rod against a washer 27 facing the pivot 16.

The rod 25 is preferably connected to the spindle 28 of a lock-cylinder 29 of common knowledge, a lap-joint and bolt connection of said rod and spindle being shown. The lock-cylinder is fitted in the front frame 5 of the aforesaid casing, and the manipulation of its spindle by a key 30 serves to actuate the rod 25 and thereby impart motion to the doors of said casing.

The casing-doors 19 are of any suitable construction, each of those shown being a cast-metal frame having a sheet-metal panel

bolted thereto, and the door-frames are made to interlock when the casing is closed, as shown in Fig. 1, the joint being dust and flame proof. To insure the snug drawing together of the frames of the doors 19, the spindle 28 of the lock-cylinder is provided with oppositely extending cam-fingers 31 engageable with inner lugs 32 of said frames.

Trunnioned in the top and bottom plates of the chamber within the casing aforesaid are swing-doors 33, provided with wings 34 in the paths of wipers 35 extending rearward from the casing-doors 19, whereby when the latter doors are run back to open said casing, the chamber-doors are swung to open position. The doors 33 are provided with rear flanges 36 that abut the shell of the chamber when said doors are closed to thereby form dust-proof joints, and said doors are made to lap one upon the other when in closed position as shown in Fig. 1. To insure a tight closing joint of the chamber doors, one of the same is provided with a spring-arm 37 opposed by a wiper 35 of one of the casing-doors in closed position.

It is within the scope of our invention, as herein claimed, to employ any suitable means by which to effect a simultaneous movement of the casing-doors in opposite directions, and in some instances the chamber-doors may be omitted.

Because of the general construction and arrangement of parts that go to make up the structure herein shown and described, said structure is virtually dustproof and fireproof when closed, and its casing-doors being locked in closed position ready access to the inner chamber is prevented.

We claim:

1. A structure of the character described comprising a casing having outer doors, a chamber in the casing, and provided with doors, and coöperating means carried by the doors of the casing and the chamber for causing the chamber doors to be actuated by movements of the casing doors.

2. A structure comprising a casing, sliding doors by which to close the casing, means within said casing for locking the doors in closed position, inner doors within the casing, and means actuated by the sliding doors for actuating the inner doors.

3. A structure comprising an all metal casing, an all metal chamber in the casing clear of the top, bottom and walls of the same, whereby air-space is had all about the chamber; sliding doors by which to close said casing, supports for the chamber engaging the top and bottom walls of the casing, and means carried by the supports for operating the doors.

4. A structure comprising an all metal casing, an all metal chamber in the casing clear of the top, bottom and walls of the same, whereby air-space is had all about the chamber; fireproof sliding doors by which to close said casing, supports in the casing for the chamber, means carried by the supports for operating the doors, and means for locking the doors in closed position.

5. A structure comprising an all metal casing, an all metal chamber supported in the casing clear of the top, bottom and walls of the same, whereby air-space is had all about the chamber; fireproof sliding doors by which to close said casing, and means disposed between the chamber and casing by which the doors are connected to have simultaneous movement in opposite directions.

6. A structure comprising an all metal casing, an all metal chamber supported in the casing clear of the top, bottom and walls of the same, whereby air-space is had all about the chamber; fireproof sliding doors connected to have simultaneous movement in opposite directions, means for operating the doors and means with the casing for locking the doors in position to close said casing and chamber.

7. A structure comprising a casing, a chamber therein, sliding doors by which to close the casing, pivotal carriers for the doors, pivotal cranks connected to the doors and having their pivot ends provided with gear-segments, a rod carrying a pinion in mesh with said segments, and a lock-cylinder within said casing having its spindle in connection with said rod to turn the same.

8. A structure comprising a casing, a chamber therein, sliding doors by which to close the casing, pivotal carriers for the doors, pivotal cranks connected to the doors and having their pivot ends provided with gear-segments, a rod carrying a pinion in mesh with said segments, a lock-cylinder with said casing having its spindle in connection with said rod to turn the same, and cam-fingers extending in opposite directions from said spindle for engagement with lugs of said doors.

9. A structure comprising a casing having rearwardly extending jamb-flanges of a front frame thereof, sliding doors having stop-flanges that abut said jamb-flanges when the doors are brought to closed position, and means by which said doors are connected to have simultaneous movement in opposite directions.

10. A structure comprising a casing, a chamber in the casing, sliding doors by which to close the casing, means by which said doors are connected to have simultaneous movement in opposite directions, swing-doors by which to close the chamber, wipers with the casing-doors, and wings with the chamber-doors in the paths of said wipers when said casing-doors are retracted.

11. A structure comprising a casing, a

chamber in the casing, sliding doors by which to close the casing, means by which said doors are connected to have simultaneous movement in opposite directions, swing-doors by which to close the chamber, a spring-arm extending from one of the chamber-doors, and a wiper with one of the casing-doors opposing said spring-arm when said casing and chamber are closed.

12. A structure comprising a casing, a chamber in the casing, sliding doors by which to close the casing, means by which said doors are connected to have simultaneous movement in opposite directions, swing-doors by which to close the chamber, wings with the chamber-doors in the paths of said wipers when said casing-doors are retracted, and a spring-arm extending from one of the chamber-doors in opposition to a wiper of a closed casing-door.

13. A safe comprising a casing having oppositely moving sliding doors, said doors being provided with rearwardly projecting means for operating inner doors, a chamber within the casing and provided with doors, the chamber doors having outwardly projecting portions that are engaged by the rear projections of the casing doors to actuate the chamber doors.

In testimony that we claim the foregoing we have hereunto set our hands at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

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