

(No Model.)

2 Sheets—Sheet 1.

M. S. GOLDSMITH.
BURGLAR PROOF SAFE.

No. 470,482.

Patented Mar. 8, 1892.

FIG. 1.

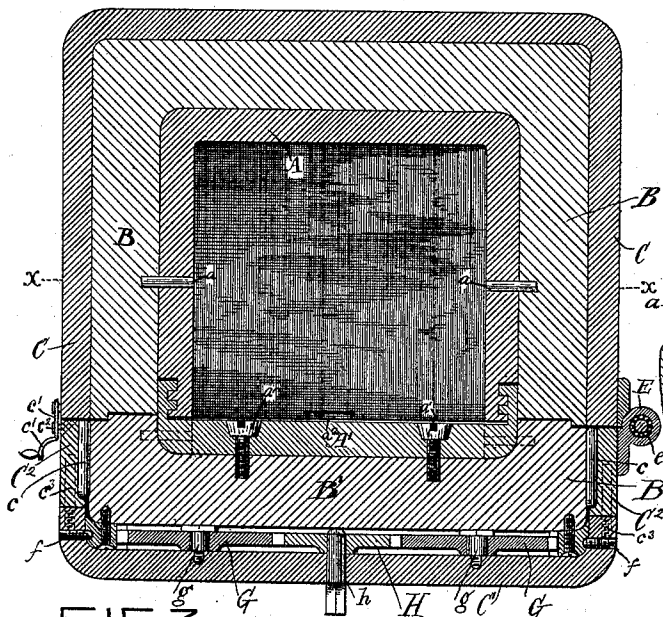


FIG. 2.

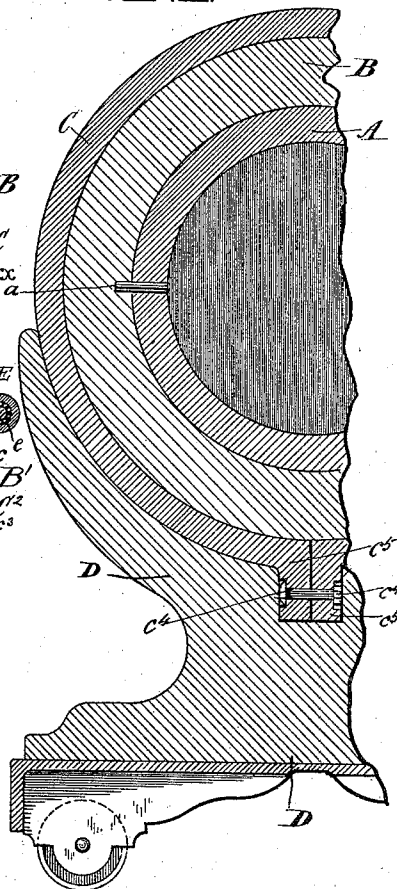
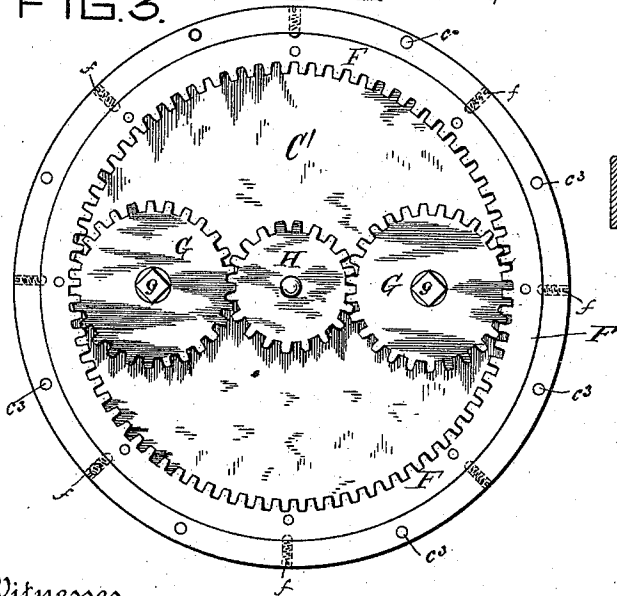


FIG. 3



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(No Model.)

2 Sheets—Sheet 2.

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FIG. 4.

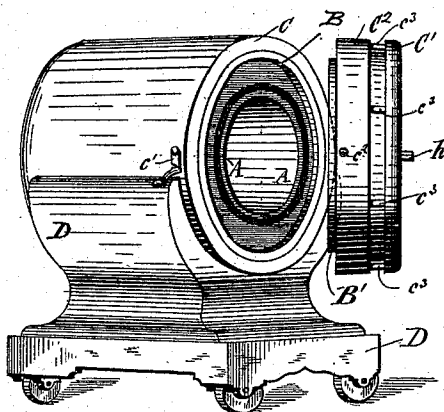
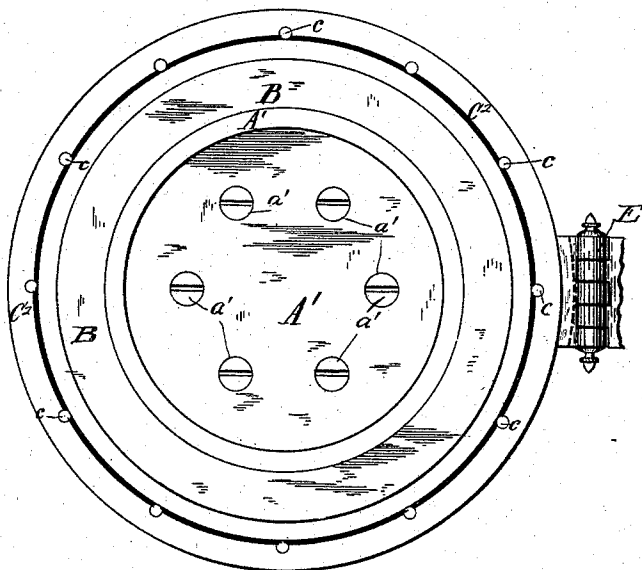


FIG. 5.



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UNITED STATES PATENT OFFICE.

MAX S. GOLDSMITH, OF CINCINNATI, OHIO.

BURGLAR-PROOF SAFE.

SPECIFICATION forming part of Letters Patent No. 470,482, dated March 8, 1892.

Application filed October 31, 1891. Serial No. 410,469. (No model.)

To all whom it may concern:

Be it known that I, MAX S. GOLDSMITH, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Burglar-Proof Safes, of which the following is a specification.

My invention particularly relates to burglar-proof safes in which the body and front closure is circular. Its object is to make a strong close-fitting burglar-proof safe in which there are no openings from the outside to the inside of the safe when closed, and a further object is to cheapen the construction of this class of safes by avoiding the drilling and fitting of the hard or drill-proof material used in burglar-proof safes. These objects I attain by the means illustrated in the accompanying drawings, in connection with which the invention will be first fully described, and then particularly referred to and pointed out in the claims.

Referring to the drawings, in which like parts are indicated by similar reference-letters wherever they occur throughout the various views, Figure 1 is a diametrical sectional view of the safe-body in its closed position. Fig. 2 is a transverse vertical section of the safe-body and base, taken through line *xx* of Fig. 1. Fig. 3 is an inside plan view of the outer front cap detached from the front closure, with the operating mechanism for retracting and closing the safe in position. Fig. 4 is a perspective view, on a diminished scale, of the completed safe with the front closure swung partly around upon its hinges. Fig. 5 is a plan view of the cap which closes the front of the safe.

Referring to the parts, A is a chest, which may be of soft material, either cast or wrought iron; B, the hard or drill-proof casing inclosing it, and the outer casing C, of either cast or wrought iron, incasing the drill-proof body B. These three members form substantially the body of the safe, which is mounted upon a cast-metal platform D.

The front cap or closure of the safe is composed of the soft metal flanged cap A', the drill-proof cap B', the outer cap or covering C', the soft-metal ring C², and the operating

mechanism arranged between the caps C' and B', by which the front of the safe is opened or closed.

In constructing the body of the safe the shell or sheet A, which I prefer to make of cast-iron, is turned off true upon the outside to snugly fit within the drill-proof body B, and is held by the pins *a*. The forward end of the shell A is exteriorly screw-threaded to receive the flanged cap A', which is interiorly screw-threaded to engage the threads of the shell. The cap A' is rigidly secured in a circular recess in the inner face of the cap B' by screws *a'*, or in any suitable manner. The cap B' fits freely within the short cylinder or ring C². The periphery of the cap is turned off true, and the inner edge of the ring is bored to receive steel friction-rollers *c*, which project slightly beyond the inner rim of the ring and serve as anti-friction bearings for the cap B'. The ring C² is hung to the outer shell C upon one side by hinge E, around the pin-
tle of which are arranged ball-bearings *e*. The opposite side of the shell is provided with a pivoted hook *c'*, the hook end of which takes over a pin *c²* upon the ring C² to hold that end of it steady, while the cap or front closure A' B' is revolved to unscrew the front and open the safe. The flanged edge of the outer cap C' is fitted with pins *c³*, which enter corresponding perforations in the outer edge of the cylinder or ring C². By this arrangement the cap B' and parts rigidly connected with it are arranged to slide away from or toward the body of the safe and the ring C².

The mechanism by which the front of the safe is opened or closed consists of an internal toothed ring F, which is secured to the outer face of the cap B' by screws passing through it and into said cap and the pinions G and H. The periphery of the cogged ring F is grooved, and round-pointed screws *f* pass through the flange of the cap C' into this groove, thus furnishing the anti-friction bearings for the ring to turn upon. The cogged gears G are mounted upon stud-bearings *g*, passed through their hubs and screwed into the inner face of the cap C'. The pinion H is secured upon a shaft *h*, which passes cen-

trally through the cap C'. The projecting end of the shaft is angular to receive a crank or lever, by which the pinion is revolved.

To open the safe from the closed position, 5 (shown in Fig. 1,) the lever or crank is placed upon the shaft *h*, and the parts A' B' revolved by the spur-gear until the screws upon the exterior of the chest A and the interior of the cap A' are disengaged. The 10 hook *c'* is then disengaged from its pin *c*², when the front of the safe may be swung around, as shown in Fig. 4.

The opening of the safe is prevented by a dog or bolt upon the cap A' entering a notch 15 *a*², cut in the edge of the chest A, said dog or bolt being controlled by a time-lock in the usual manner.

In order to secure the body of the safe from turning upon its base, as well as to clamp the 20 outer shell C upon the body B, a ridge *c*⁵, Fig. 2, is cast upon the periphery of the shell C, extending from the front edge some distance back. A slot is cut through this ridge and through the shell and the body B is inserted. 25 The bolts *c*⁴ are employed to tighten up the shell upon the body. The base D is recessed upon the top counter to the ridge *c*⁵, so that when the safe is placed in position it is not liable to turn upon its base.

30 Instead of making the cap A' in one piece, the flanged portion may be made as a ring. Pins may be passed through from the inside into the cap B', after which the center or disk portion may be dropped within the ring and 35 secured to the face of the part B', as shown in dotted lines, Fig. 1, and the cap A' may extend within the shell A and be screw-threaded externally to engage interior screw-threads in the shell; but the form shown is the better 40 one.

It will thus be seen that substantially all the fitting required in the construction of my safe is performed upon the softer metal and that the parts are readily attached together 45 for use.

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

1. In a burglar-proof safe, the combination 50 of the circular drill-proof body B, the drill-proof cap B' to close the front end thereof, the chest A within the body and having its open end screw-threaded, the flanged cap A',

secured to the cap B' and having its flange threaded to engage the thread upon the chest, the outer casing for the body B, the ring C², 55 hinged to said outer casing to furnish a bearing for the revoluble cap B' and its connections, the front cap C', movably connected to the ring C², the spur-gears G G H, mounted upon the inner face of said front cap, and the 60 internally-cogged ring secured to the cap B', substantially as shown and described.

2. The safe-body composed of the inner and outer soft-metal shells and intermediate drill-proof shell, the front closure composed of inner soft-metal cap and drill-proof cap B', the 65 cylindrical ring C², hinged to the outer casing of the body and supporting the front closure and front cap, the cap C', the pins *c*³, movably supporting the same and the ring C², the 70 internally-cogged ring F, secured to the drill-proof cap, the spur-gears G G H, mounted upon the front cap, the shaft *h*, extending through the front cap and having a wrench-seat upon its outer end to receive a lever by which the 75 gearing is rotated to revolve the caps B' A', the said inner shell and cap A' being united by screw-threaded connection, substantially as shown and described.

3. The combination of the safe-body composed of cylindrical shells A B C, the front closure A' B', united to the body by screw-threaded connection, the cylindrical ring C², the steel pins *c* within said ring to furnish 80 anti-friction bearings for the revoluble closure, the hinge E, connecting the outer shell to the body of the ring, the flanged cap C', having pins *c*³ secured to its edge to slide in perforations of the ring C², the internally-cogged ring secured to the front cap B' and 90 having its periphery grooved, the screws *f*, passing through the flange of the outer cap C' and into the groove of the cogged ring, the spur-gears G G H, mounted upon the inner face of the front cap, and a shaft *h*, projecting through the front of the cap and having its end formed angular to receive a crank arm or lever for the purpose of revolving the caps A' B' to open and close the safe, substantially as shown and described.

MAX S. GOLDSMITH.

Witnesses:

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W. E. PARRY.