109. SAFES, BANK PROTECTION
AND RELATED DEVICES.

81

I. Rogers,

Burglar-Proof Safe.

No. 40,947. Patented Dec. 15, 1863.

Fig. 3.

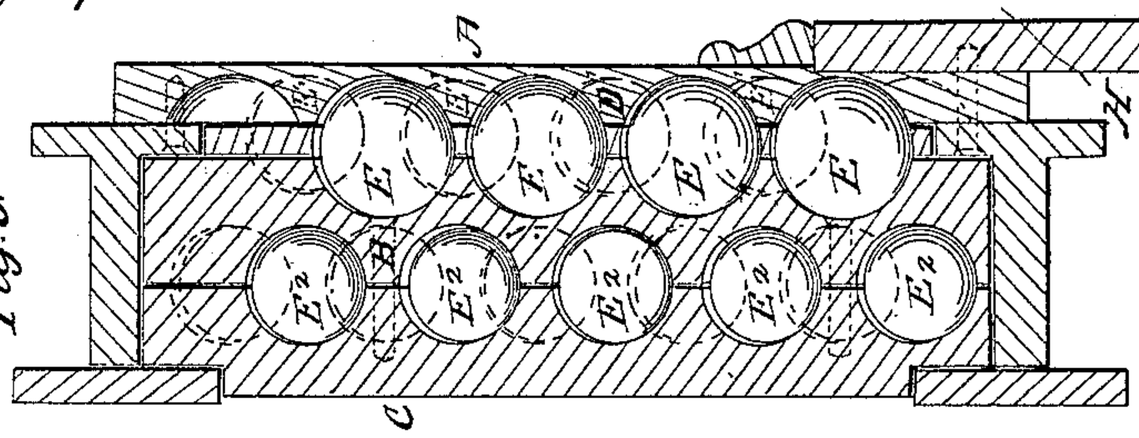


Fig. 2.

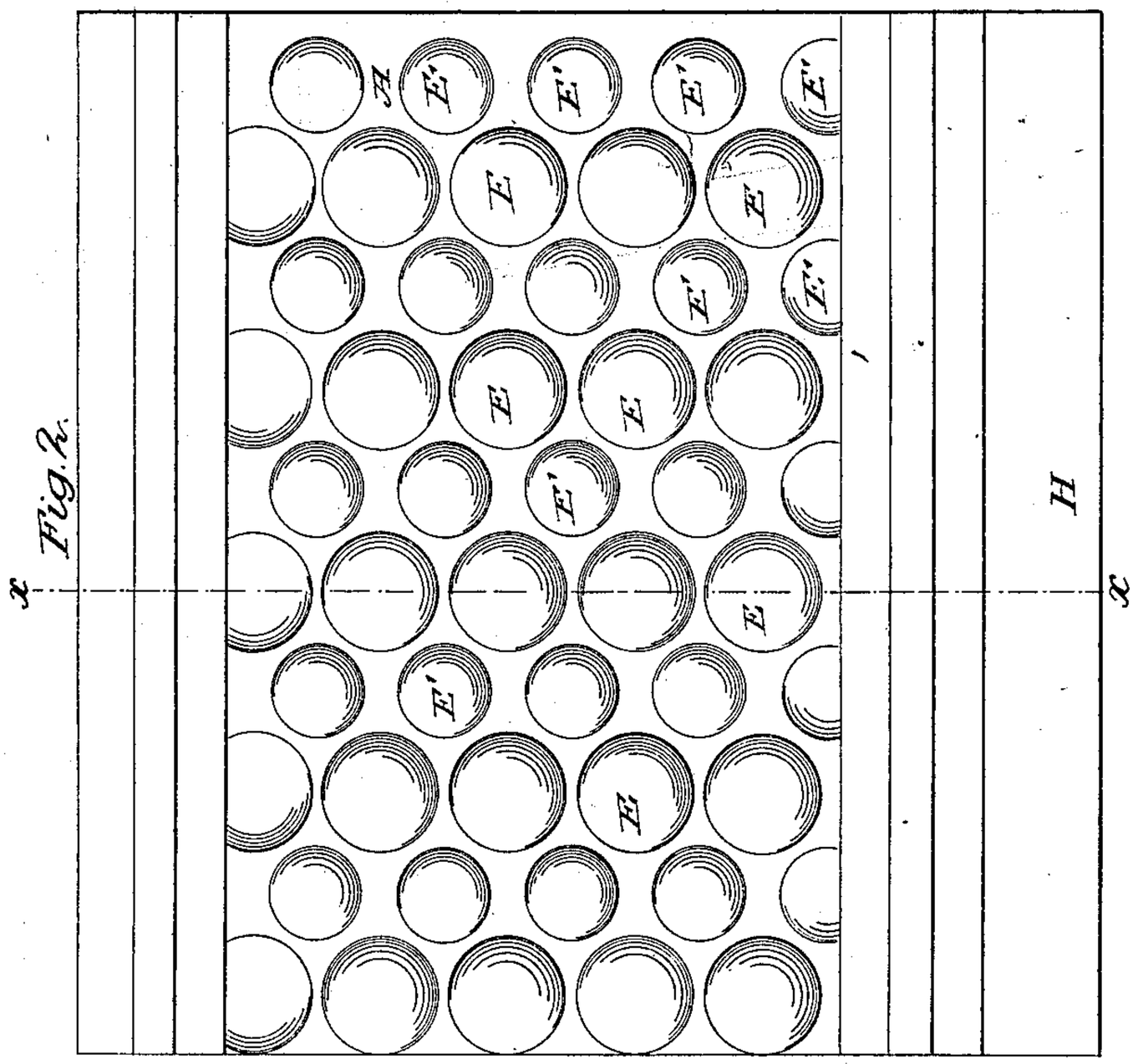
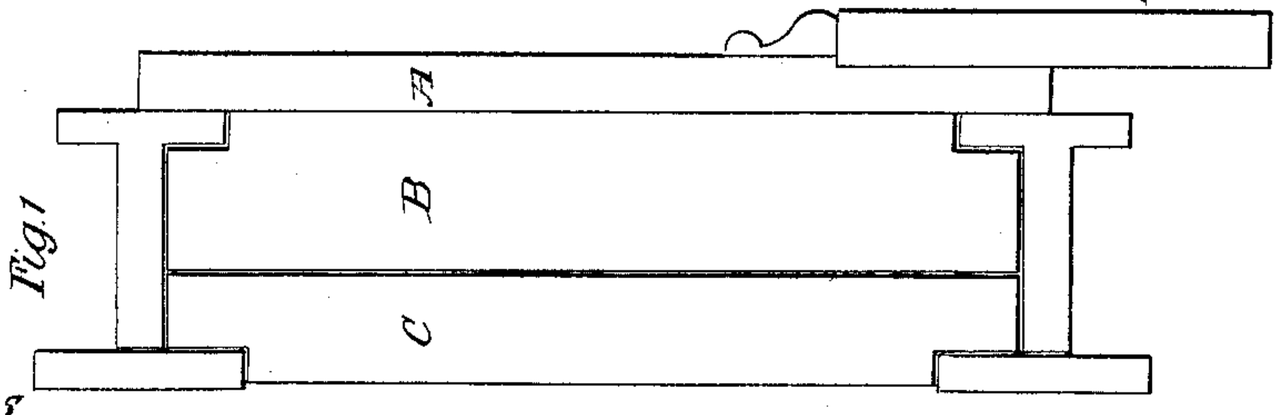


Fig. 1



Witnesses
J. W. Coombs
Geo. W. Reed

Inventor
Isaiah Rogers
per Munn & Co

AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS.)

109. SAFES, BANK PROTECTION AND RELATED DEVICES.

Search Room

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UNITED STATES PATENT OFFICE.

ISAIAH ROGERS, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN SAFES.

Specification forming part of Letters Patent No. **40,947**, dated December 15, 1863.

To all whom it may concern:

Be it known that I, ISAIAH ROGERS, of Washington, in the county of Washington and District of Columbia, have invented a new and useful Improvement in Burglar-Proof Safes; 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 a part of this specification, in which—

Figure 1 is an end view of one side of my invention; Fig. 2, an inner face of the outer plate of the same; Fig. 3, a section of the same, taken in the line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in interposing between the walls of a safe a series of balls of cast-iron or other hard metal or material, arranged in such a manner as to be enabled to work, play, or turn freely between the walls and present a perfect barrier to a drill, "router," or other burglar tool, the balls, in consequence of being allowed to turn freely, preventing a drill or router from acting upon them, and being of different diameters, so as to effectually preclude a drill or router being used without coming in contact with a ball.

The invention further consists in the application of a steel plate to one of the inner walls of the sides of the safe, as hereinafter set forth, for the purpose of protecting the inner plates or prevent them being broken and dislodged should the outer plates, by any possibility, be wrenched off from the safe.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the outer wall of one side of a safe. B represents a middle or intermediate wall, and C the back wall of the same. The outer wall, A, is designed to be of wrought-iron, the others may be of cast-iron, the outer side of the intermediate wall, B, being faced with a steel plate, D, hardened, if necessary, and attached to B by screws or other suitable means. These several plates may be secured together in any proper way.

Between the walls A B there are interposed a series of balls, E E′, of cast-iron, or other hard metal or material. These balls are fitted loosely in cavities made in the adjoining surfaces of A B, and the balls E are larger in diameter than the balls E′, as shown clearly in Fig. 2. The cavities in the inner surface of the wall A are all equal in depth, so that both the large and small balls, when placed in position between A B, will have their outermost surfaces in A all in the same plane, as will be fully understood by referring to Fig. 3, in which the small balls are shown in dotted lines. The cavities in the wall B are made of different depths, to suit the two different sizes of the balls. The cavities are made in the walls A B in such a position that the peripheries of the balls will be at equal distances apart, the large and small balls being placed in alternate rows. This arrangement, it will be seen, throws the spaces between the balls in such a position that no circle can be obtained from any point as a center on the wall A that will not come in contact with a ball, E or E′, and as these balls are allowed to turn freely in their cavities or sockets a cutting-tool of any kind cannot be made to act upon them, and hence the wall A cannot be cut through or perforated with holes. The steel plate D, which may be hardened, if necessary, is, of course, perforated with holes to admit of the balls passing through or being fitted in it. This steel plate serves as a protection for the wall B, which is of cast-iron.

Between the walls B C there are interposed balls E″. These balls may all be of equal diameter, as shown in Fig. 3, and they serve as a protection in case of the wall B being broken and dislodged. Balls E″, however, varying in diameter, like the balls E E′, may be employed, if desired.

H represents a flange of wrought-iron, which is secured to the lower part of the outer wall, A. This flange is fitted in a recess in said wall, and is secured to it by screws, which pass through A from its inner side into H, as shown by the dotted lines in Fig. 3. This flange H prevents the wall A from being wrenched off from the safe.

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

1. A burglar-proof safe having the space between its walls provided with balls arranged

in such a manner that they may turn and still be retained in proper position, for the purpose herein set forth.

2. The employment or use of balls of different diameters, substantially as and for the purpose specified.

3. The steel plate D, secured to the outer or face side of the wall B, when said plate is used in combination with the balls, as and for the purpose set forth.

ISAIAH ROGERS.

Witnesses:
CHARLES D. SMITH,
JAMES H. GRIDLEY.