

O. W. BEDELL.

SAFE.

APPLICATION FILED NOV. 22, 1910.

1,038,269.

Patented Sept. 10, 1912.

2 SHEETS—SHEET 1.

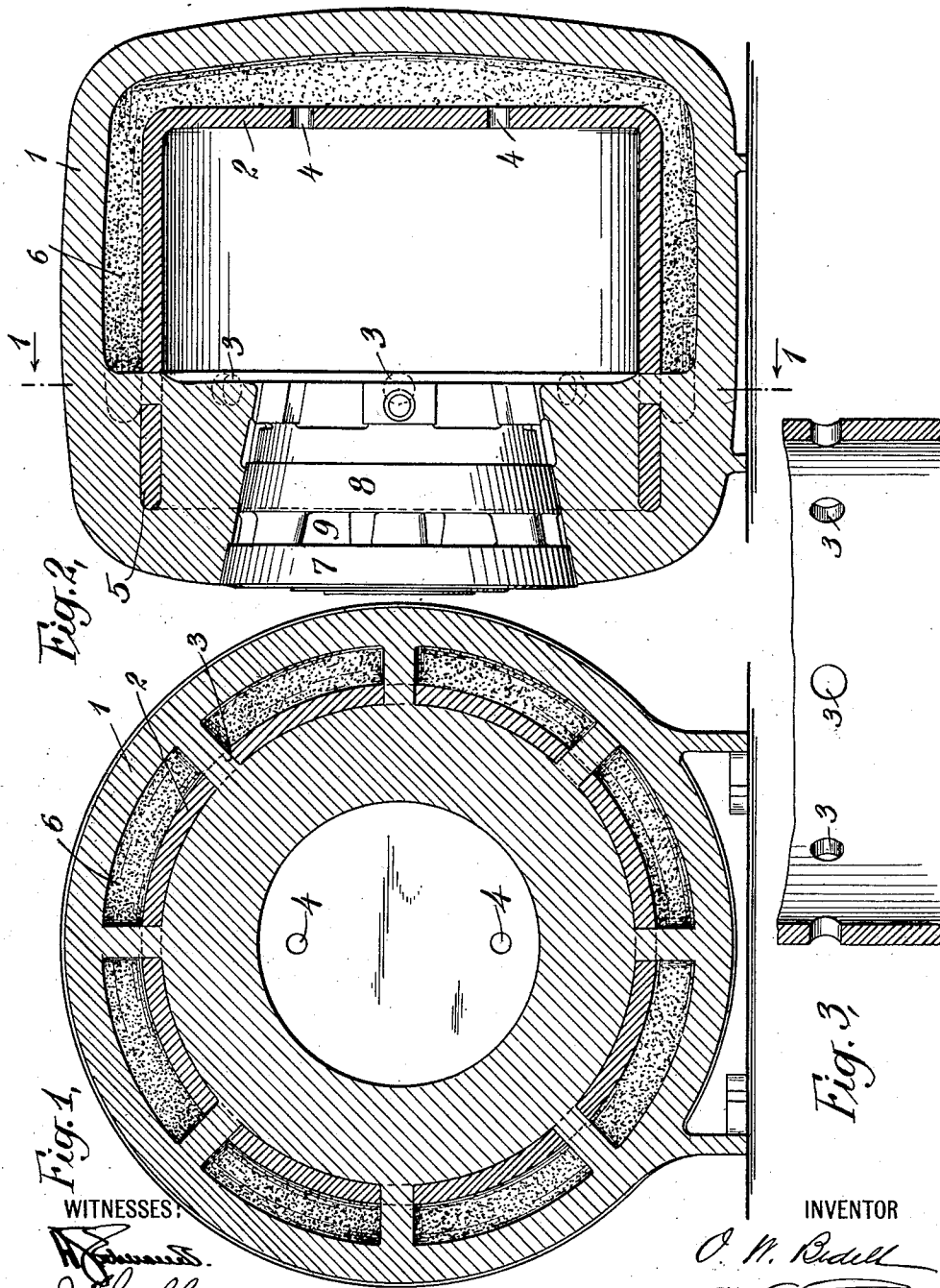


Fig. 1.

Fig. 2.

Fig. 3.

WITNESSES:

J. Hollins

INVENTOR

O. W. Bedell
BY *J. P. Edwards*
ATTORNEY

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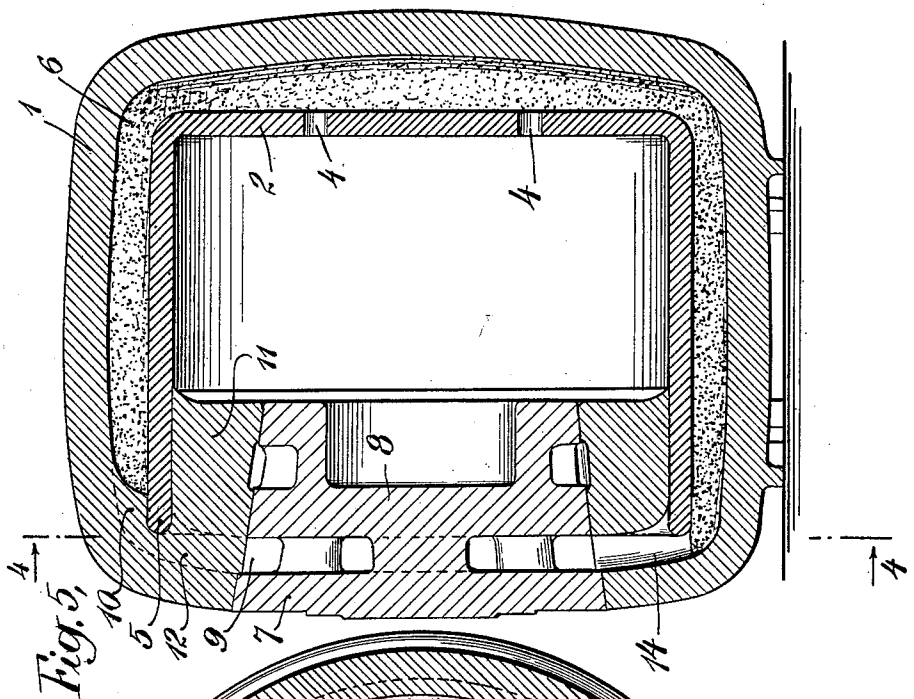


Fig. 5,

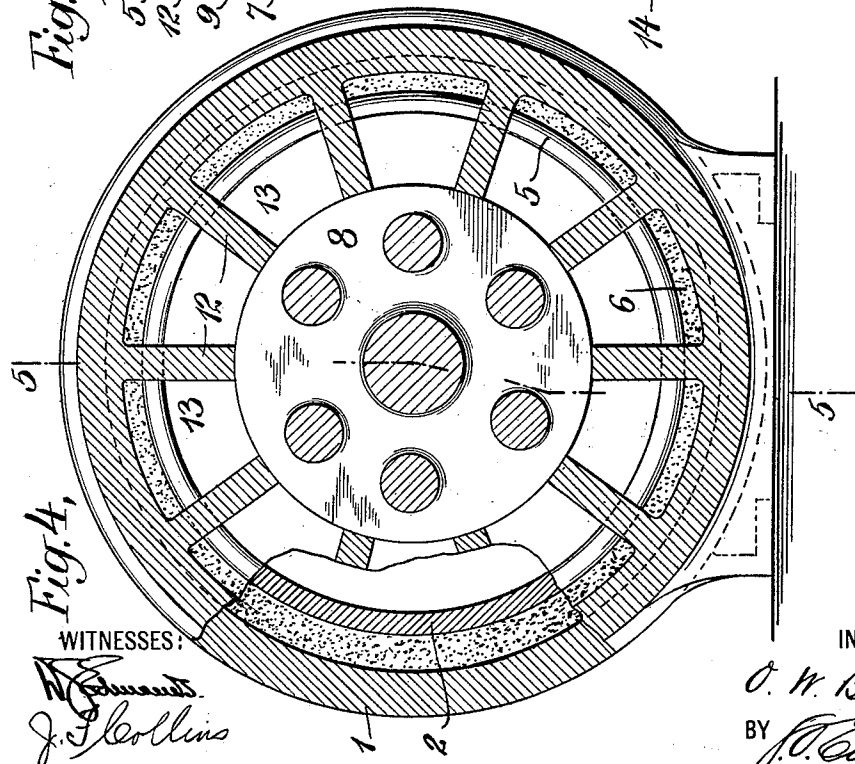


Fig. 4,

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UNITED STATES PATENT OFFICE.

ORLANDO W. BEDELL, OF NEW YORK, N. Y., ASSIGNOR TO ELY-NORRIS SAFE COMPANY,
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SAFE.

1,038,269.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ORLANDO W. BEDELL, a citizen of the United States, residing in the city of New York, county of Richmond, and State of New York, have invented certain new and useful Improvements in Safes, of which the following is a specification.

This invention relates to safes and vaults and is directed to the provision of a safe of an improved construction which is both burglarproof and fireproof.

The invention involves the provision of a burglar-proof safe having two walls practically throughout the body thereof, these walls being spaced apart a short distance. The two bodies constituting the compound body of the safe are joined together so that one becomes held in the desired relation to the other as an incident to the casting operation. Preferably the space between the two bodies is filled with some solid, non-metallic substance, and for this purpose the sand used in preparing the core for the casting operation may be conveniently utilized. The inner body is formed practically complete by casting in the usual manner, the material employed being preferably an unmachinable metal such as manganese steel. This inner body is then mounted within the mold used for casting the outer body, it being built up with sand or other suitable material, to form a core of the desired size and shape. The outer body is then cast in the usual manner, employing manganese steel or similar material, and the molten metal runs in around a portion of the inner body so that when hard it will hold the inner body properly with respect to the outer body. A compound burglarproof and fireproof safe-body is thus provided having two walls, one within the other, positioned rigidly with respect thereto and spaced apart therefrom by a non-metallic stratum of sand or other non-combustible pulverulent material. With such a safe-body, I preferably employ a compound safe-door such as that disclosed in Patent No. 827,351 granted to S. A. Ely July 31, 1906, and in that case I may extend the space between the two bodies of the safe out to the jamb of the door-opening opposite the space between the sections of the compound door when the latter is in the closed position.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figures 1 and 2 are sectional views of a safe, one at a right angle to the other and the section of Fig. 1 being the line 1—1 of Fig. 2; Fig. 3 is a sectional detail view of a portion of the inner body; Fig. 4 is a sectional view of a modified form of safe corresponding to Fig. 1 and in section on line 4—4 of Fig. 5; and Fig. 5 is a sectional view of the structure shown in Fig. 4 corresponding to Fig. 2 and in section on line 5—5 of Fig. 4.

Referring first to Figs. 1, 2 and 3, the outer body of the safe is shown at 1, and 2 indicates the inner one. The inner body 2 conforms closely to a cylinder closed at one end and open at the other and is made of manganese steel by a casting operation in the manner usual in burglarproof safes. This inner member 2 has a plurality of openings 3 through the cylindrical wall thereof and two or more openings 4 in the closed end wall. In making a complete safe-body, the member 2 is utilized as a portion of the core, foundry sand being built up around it to make up the complete core in the usual manner. This compound core is then held within the mold by means of rods passing through the openings 4 and secured therein and to anchors in the mold. The molten metal for the body 1 is then poured in and flows in around the core, filling all the spaces including the openings 3 through the body 2. It will be noted that one end 5 of the body 2 is embedded in the mass of metal about the jamb of the door-opening and this end forms a "chill" for preventing such unequal contraction of the metal in hardening as would result in excessive strains. The portions of the outer body 1 in which the end 5 of the body 2 is embedded and the portions passing through the openings 3 hold the body 2 quite rigidly with respect to the body 1. The remainder of the body 2 other than the end 5 thereof is spaced apart from the body 1, this space being filled with the sand or slag 6 used in shaping the core.

The door shown in Figs. 2, 4 and 5 is of the compound type having two or more sections 7 and 8 rigidly connected but spaced apart so as to form a chamber 9 between them. The body construction illustrated in

Figs. 4 and 5 differs slightly from that shown in Figs. 1 and 2 and is specially adapted for use in connection with such compound doors. In this form of body, the space between the two members thereof is extended out to the jamb of the door-opening and is open at the jamb opposite the chamber 9 in the door. The openings 3 may be omitted and the body 2 held solely by the metal 10 and 11 of the body 1 on opposite sides thereof. The ring 11 of metal of the body 1 lying within the body 2 and forming the elongated door-jamb is connected to the body 1 proper by a plurality of relatively narrow webs 12 between which are spaces 13, extending the space between the bodies 1 and 2 out to the jamb of the door-opening. At the jamb, these spaces are opposite the chamber 9 in the door when the latter is in the closed position.

The core employed in casting the outer body 1 is of course shaped so that it fills the spaces 13 between the webs 10 as well as the space between the walls 1 and 2 and the sand of the core may be allowed to remain in these spaces during the period of use of the safe; or if desired more or less of the sand may be removed. In Fig. 5, I have shown the core sand removed back a substantial distance from the jamb of the door forming air spaces 14 so that the explosion chamber in the door is extended into the body.

Having now described my invention, what I claim as new therein and desire to secure by Letters Patent is as follows:—

1. A compound safe-body comprising an outer body of unmachinable metal and an inner body mounted within the same, the inner body being spaced apart from the outer one over the major portion thereof and a portion of the inner body being embedded in the metal of the outer one to position the inner body rigidly with respect to the outer one, substantially as set forth.

2. A compound safe-body comprising an outer body of unmachinable metal and an inner body mounted within the same and spaced apart therefrom over the major portion thereof, a portion of the inner body being embedded in the metal of the outer one to position the inner body rigidly with respect to the outer one and the inner body being formed to facilitate securing it in a mold during the casting of the outer body, substantially as set forth.

3. A compound safe-body comprising an outer body of unmachinable metal and an inner body mounted within the same and spaced apart therefrom over the major portion thereof, a portion of the inner body being embedded in the metal of the outer one to position the inner body rigidly with respect to the outer one and the inner body being provided with openings which the metal of the outer body may fill when casting the outer body, substantially as set forth.

4. A compound safe-body consisting of an outer body of unmachinable metal of substantially uniform thickness throughout except around the door-jamb where the thickness of the metal is substantially increased, and an inner body mounted within the outer body with a portion thereof embedded in the thicker metal of the outer body about the door-jamb, the major portion of the inner body being spaced apart from the outer body, substantially as set forth.

5. A compound safe-body comprising an outer body of unmachinable metal and an inner body mounted within the same and spaced apart therefrom over the major portion thereof, a portion of the inner body being embedded in the metal of the outer one to position the inner body rigidly with respect to the outer one and the space between the two bodies being extended through the metal of the outer body out to the jamb of the door-opening, substantially as set forth.

6. A compound safe-body consisting of an outer body of unmachinable metal of substantially uniform thickness throughout except around the door-jamb where the thickness of the metal is substantially increased, and an inner body mounted within the outer body with a portion thereof embedded in the thicker metal of the outer body about the door-jamb, the major portion of the inner body being spaced apart from the outer body and said thicker portion of the outer body about the door-jamb having openings therethrough extending the space between the two bodies out to the door-jamb, substantially as set forth.

This specification signed and witnessed this 19 day of November, 1910.

ORLANDO W. BEDELL.

Witnesses:

CHAS. K. SEAMAN,
WM. S. DUNCAN.