

C. BARTELS.
SAFE OR VAULT WALL.
APPLICATION FILED MAR. 3, 1913.

1,063,317.

Patented June 3, 1913.

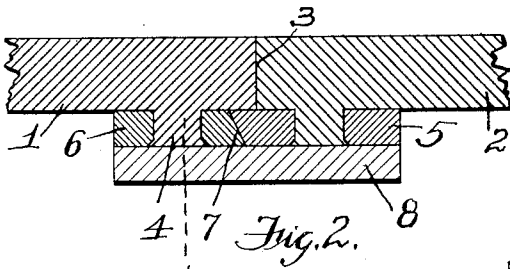


Fig. 2.

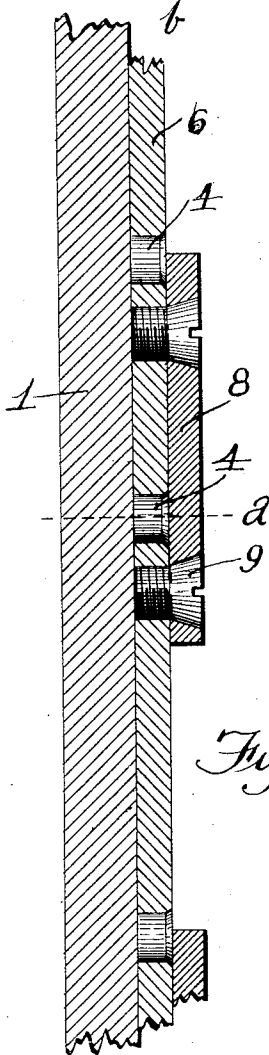
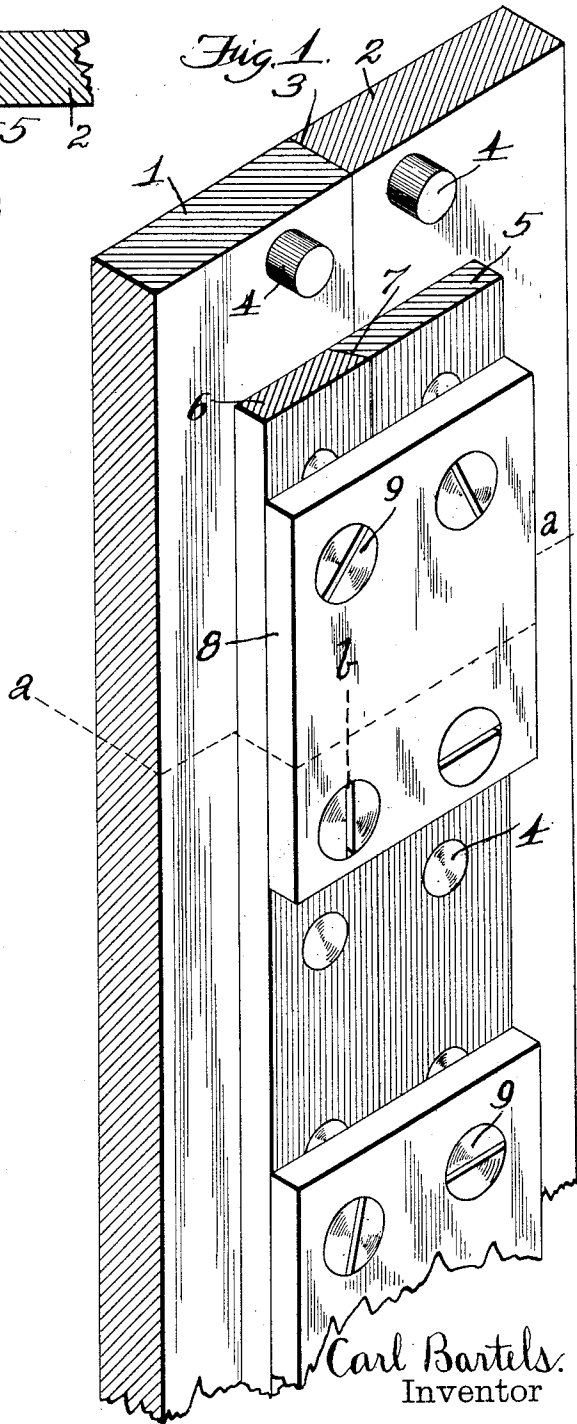


Fig. 3.



Witnesses:
Elmer R. Shipley.
M. S. Belden.

Carl Bartels.
Inventor
by *James W. See*
Attorney

UNITED STATES PATENT OFFICE.

CARL BARTELS, OF HAMILTON, OHIO, ASSIGNOR TO THE MOSLER SAFE COMPANY, OF
NEW YORK, N. Y.

SAFE OR VAULT WALL.

1,063,317.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed March 3, 1913. Serial No. 751,699.

To all whom it may concern:

Be it known that I, CARL BARTELS, a citizen of the United States, residing at Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Safe or Vault Walls, of which the following is a specification.

This invention pertains to improvements in the construction of safes or vaults whose walls are formed of unmachinable metal, such as manganese steel, the improvements relating particularly to the joints between the edges of the wall-plates.

The invention will be readily understood from the following description taken in connection with the accompanying drawing in which:—

Figure 1 is a perspective view of portions of two abutting wall-plates whose joint of union is secured by an embodiment of my improved system: Fig. 2 a horizontal section of the same in the plane of line *a* of Figs. 1 and 3: and Fig. 3 a vertical section of the same in the plane of line *b* of Figs. 1 and 2.

In the drawing:—1, indicates one of the wall-plates, with a vertical edge against which the edge of a companion plate is to abut: 2, the companion plate with its edge against the edge of the first plate: 3, the joint of separation between the two plates, the illustration showing the contacting surfaces of the edges of the plate at this joint as being plain, this being a form of plate-edge which may be produced in good shape in unmachinable method by process of grinding: 4, studs projecting integrally from the interior surfaces of the plates, at each side of the joint and near the joint: 5, a bar of machinable metal extending along the inner surface of plate 2 and having its inner edge overlapping plate 1, this bar 5 being secured to plate 2 by having studs 4 passing through apertures in the bar and then riveted so as to secure bar 5 rigidly to plate 2: 6, a similar bar similarly secured to plate 1 and having its inner edge in engagement with the inner edge of plate 5: 7, the joint of separation between bars 5 and 6, this joint being upon a bevel, as indicated, so that the inner edge of bar 5 hooks under, so to speak, the inner edge of bar 6: 8, plates disposed against the inner faces of bars 5 and 6: and 9, screws passing through plates 8 and screwed into bars 5.

The plates and the bars having been properly formed, the bars are to be secured to the plates by riveting the studs 4, it being understood that while the metal of the plates and studs is unmachinable it may be riveted, thus permitting the bars to be rigidly secured to the plates. Plates 8 are then to be secured to the bars by the screws 9, it being understood that the bars are machinable metal which may be drilled and tapped to receive screws 9. The plates 8 may be of any desired length, even as long as the bars, though my preference is that they be comparatively short and applied to the bars at intervals as illustrated. The overlapping of plate 5 upon plate 1 serves in preventing the existence of a straight passage through joint 1 to plates 8, and it also provides a rabbeting for the positioning of the plates while in process of erection, and the beveled character of joint 7 serves in maintaining this positioning during erection.

A safe or vault structure having been completed in the shape with its wall-joints formed in the manner indicated, the structure may be disassembled by removing screws 9 and plates 8, and when the parts are to be finally assembled the plates of the structure are to be placed in proper relationship, the overlapping of bar 5 upon plate 1, and the beveled character of joint 7 serving to maintain the plates in proper relationship while plates 8 are being applied.

I claim:—

1. A safe or vault wall comprising, plates of unmachinable metal having their edges in abutting contact and having their inner surfaces provided with integrally formed studs near the joint between the edges of the plates, a bar of machinable metal secured to the inner surface at the edge of each plate by means of said studs being riveted in holes in the bars, a plate disposed against the inner surface of said bars, and screws passing through the last-mentioned plate and screwed into the bars, combined substantially as set forth.

2. A safe or vault wall comprising, plates of unmachinable metal having their edges in abutting contact and having their inner surfaces provided with integrally formed studs near the joint between the edges of the plates, a bar of machinable metal disposed against the inner surface at the edge of one plate and overlapping the other plate and

secured to its plate by means of said studs being riveted in holes in the bar, a bar of machinable metal similarly secured to the other plate and having its inner edge in contact with the inner edge of the first-mentioned bar, a plate disposed against the inner surface of said bars, and screws passing through the last-mentioned plate and screwed into the bars, combined substantially as set forth.

3. A safe or vault wall comprising, plates of unmachinable metal having their edges in abutting contact and having their inner surfaces provided with integrally formed studs near the joint between the edges of the plates, a bar of machinable metal disposed against the inner surface at the edge of one plate and overlapping the other plate and secured to its plate by means of said studs being riveted in holes in the bar, a bar of machinable metal similarly secured to the other plate and having its inner edge in contact with the inner edge of the first-mentioned bar, the inner edge of one of the bars

engaging to the rear of the inner edge of the other bar, a plate disposed against the inner surface of said bars, and screws passing through the last-mentioned plate and screwed into the bars, combined substantially as set forth.

4. A safe or vault wall comprising, plates of unmachinable metal having their edges in abutting contact and having their inner surfaces provided with integrally formed studs near the joint between the edges of the plates, a bar of machinable metal secured to the inner surface at the edge of each plate by means of said studs being riveted in holes in the bars, a series of plates disposed against the inner surfaces of said bars, and screws passing through the last-mentioned plates and screwed into the bars, combined substantially as set forth.

CARL BARTELS.

Witnesses:

E. R. SHIPLEY,
H. M. MILERS.

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