No. 829,966. PATENTED SEPT. 4, 1906.

R. W. JEFFERIS.

METAL DOOR OR PANEL FOR LOCKERS AND THE LIKE.

APPLICATION FILED DEC. 8, 1905.

Fig. 1.

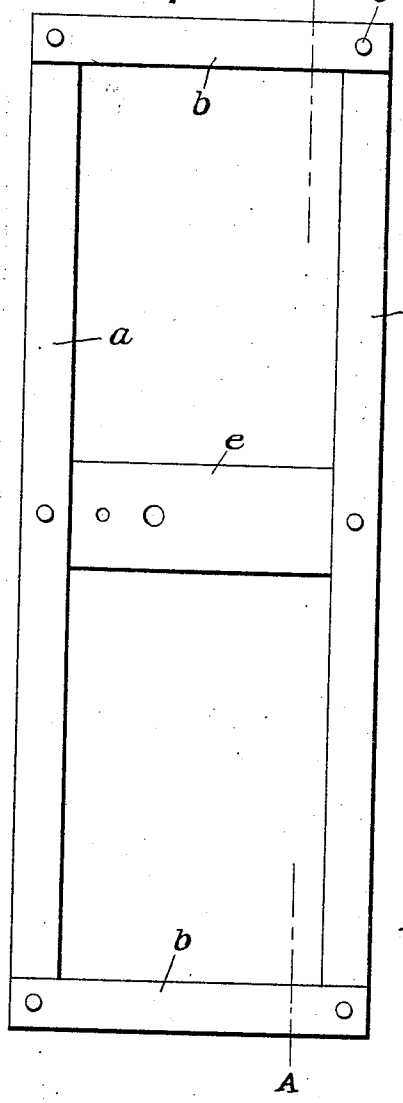


Fig. 2.

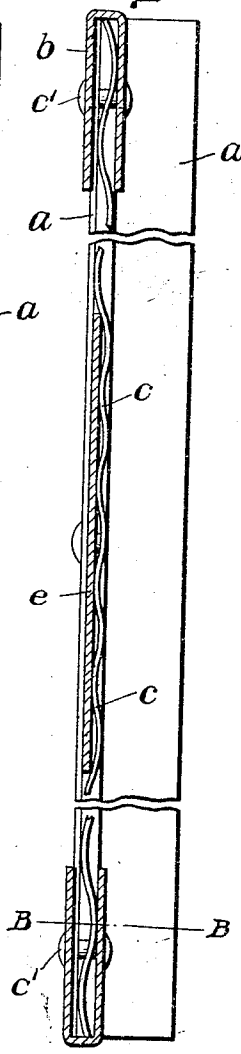


Fig. 4.

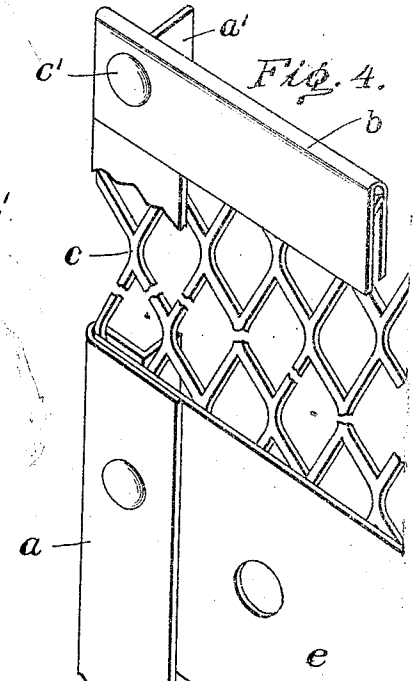


Fig. 5.

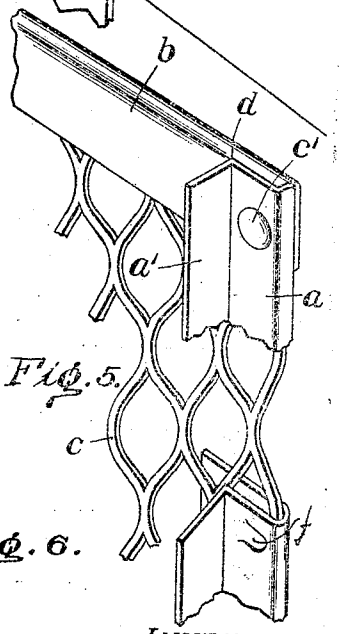


Fig. 3.

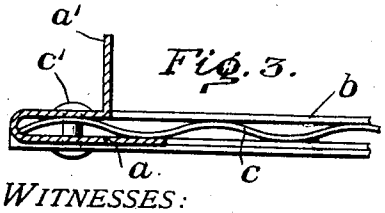
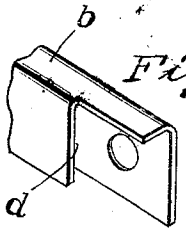


Fig. 6.



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METAL DOOR OR PANEL FOR LOCKERS AND THE LIKE.

No. 829,966. Specification of Letters Patent. Patented Sept. 4, 1906.

Application filed December 8, 1905. Serial No. 290,892.

To all whom it may concern:

Be it known that I, RICHARD W. JEFFERIS, of Merchantville, county of Camden, and State of New Jersey, have invented an Improvement in Metal Doors or Panels for Lockers and the Like, of which the following is a specification.

It is one of the objects of my invention to lighten the construction of metal doors or panels, such as are commonly used in metal lockers, without sacrificing the necessary strength and rigidity. To this end I dispense with the heavy angle-irons which have usually been used for the outer framework and form the frame of flattened-U-shaped pieces of sheet metal. By bending one of the edges of these pieces into longitudinal angular flanges I provide longitudinal strengthening-ribs which enable the use of comparatively light metal without sacrifice of strength and rigidity. The web or panel sheet is fitted to these frames by placing its edges in the open side of their U-shaped bends.

In the drawings, Figure 1 is a front elevation of the metal framework of the door or panel, omitting the wall or web carried thereby. Fig. 2 is a vertical section of the same on the line A A of Fig. 1, on an enlarged scale and including the wall or web. Fig. 3 is a horizontal section on the line B B of Fig. 2. Fig. 4 is a perspective view of a portion of the door or panel looking from the front. Fig. 5 is a similar view looking from the back, and Fig. 6 is a perspective view of one of the corners of the cross-bars.

a a are the side members of the frame. They are formed of sheet metal bent into flattened-U shape with one end bent in to form a vertical inwardly-extending strengthening-flange *a'*.

b b are the top and bottom cross-pieces, which are also formed of metal bent into flattened-U shape.

c is the web or wall, which may be of any suitable material and is here shown composed of expanded metal. This sheet, cut to the proper size, is placed with its side edges fitting in the U-shaped side members *a a*. The top and bottom cross-bars are then placed over the ends of the side bars *a a* and the top and bottom edges of the sheet *c* and are riveted or otherwise fastened, as at *c'*, to the members *b b*. The outer edges of the sheet *c* are thus fitted within the flattened-U-shaped members *a a b b* of the outer framework.

I prefer to cut off the inner portions of top and bottom cross-bars *b b* at the corners, as shown at *d*, so that the inner portions of the side bars *a a* at the corners may fit into the openings *d* thus afforded, allowing the strengthening ribs or flanges *a'* to extend across the inner sides of the cross-bars to the full length of the door or panel. These ribs or flanges *a'* act as strengthening-ribs to impart strength and rigidity to the frame structure and permit lighter metal to be used for the outer framework than would otherwise be possible. They also form ledges of the door-frame.

The rivets *c'*, which secure the members *a a b b* together at the corners, also serve to fasten the sheet *c* in place, and ordinarily rivets or other fastenings for securing the edges of the web in the U-bends of the frame-pieces will not be necessary. Such fastenings may, however, be employed, if desired, and in Fig. 5 I have shown a lip *f* cut in the inner portion of the side bar *a* and forced into engagement with the web *c;* but ordinarily the members *a a b b* may be fitted sufficiently tightly on the edges of the web *c* to render such fastenings unnecessary.

A middle or lock bar *e* may be secured to the side bars *a a*. I have shown it with its ends inserted in the U-shaped openings with the edges of the web and riveted to the bars *a a*.

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

1. A metal door or panel for lockers and the like, consisting of an outer frame formed of flattened-U-shaped pieces of sheet metal united at the corners, and a panel web or sheet, carried by said outer frame and having its outer edges fitting in the inner open edges of said U-shaped pieces.

2. A metal door or panel for lockers and the like, consisting of outer side bars formed of flattened-U-shaped pieces of sheet metal provided with longitudinal projecting strengthening-flanges, a panel web or sheet having its outer edges fitting in the inner open edges of said U-shaped pieces, and cross-bars uniting said outer side bars at the top and bottom.

3. A metal door or panel for lockers and the like, consisting of outer side bars formed

of flattened-U-shaped pieces of sheet metal provided with longitudinal projecting strengthening-flanges, a panel web or sheet having its outer edges fitting in the inner open edges of said U-shaped pieces, and cross-bars uniting said outer side bars at the top and bottom and consisting of flattened-U-shaped pieces of sheet metal engaging the upper and lower edges of the panel web or sheet.

4. A metal door or panel for lockers and the like, consisting of the side bars *a a* composed of flattened-U-shaped pieces of sheet metal having one edge bent into a longitudinal angular flange or strengthening-rib *a'*, the top and bottom cross-bars *b b* also formed of flattened-U-shaped pieces of sheet metal secured at their ends to the ends of the side bars *a a*, and a panel web or sheet having its edges fitting in the open edges of said U-shaped side bars and cross-pieces.

5. A metal door or panel for lockers and the like, consisting of the side bars *a a* composed of flattened-U-shaped pieces of sheet metal having one edge bent into a longitudinal angular flange or strengthening rib *a'*, the top and bottom cross-bars *b b* also formed of flattened-U-shaped pieces of sheet metal secured at their ends to the ends of the side bars *a a* said cross-bars being cut away at the inner side of the ends as at *d* and the inner faces of the ends of the side bars extending into said cut-away portions, and a panel web or sheet having its edges fitting in the open edges of said U-shaped side bars and cross-pieces.

6. A metal frame for doors or panels for lockers and the like, consisting of side bars formed of pieces of flattened-U-shaped sheet metal having one edge bent into a longitudinal angular flange or strengthening-rib, and cross-pieces uniting said side bars at the top and bottom.

In testimony of which invention I hereunto set my hand.

RICHARD W. JEFFERIS.

Witnesses:
JAS. W. PEARCE,
JAS. L. MERRITT.