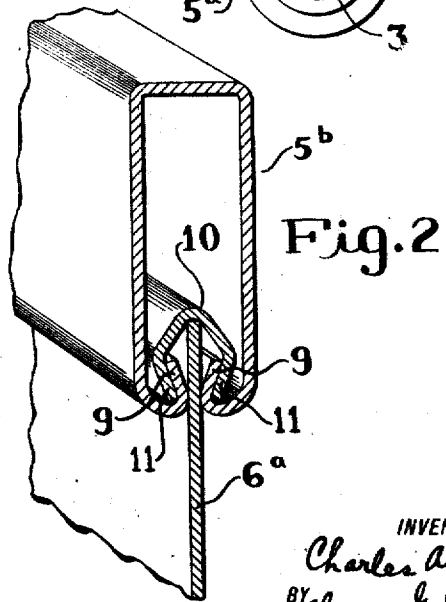
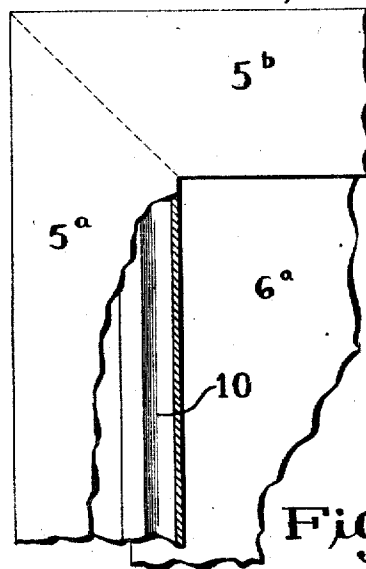
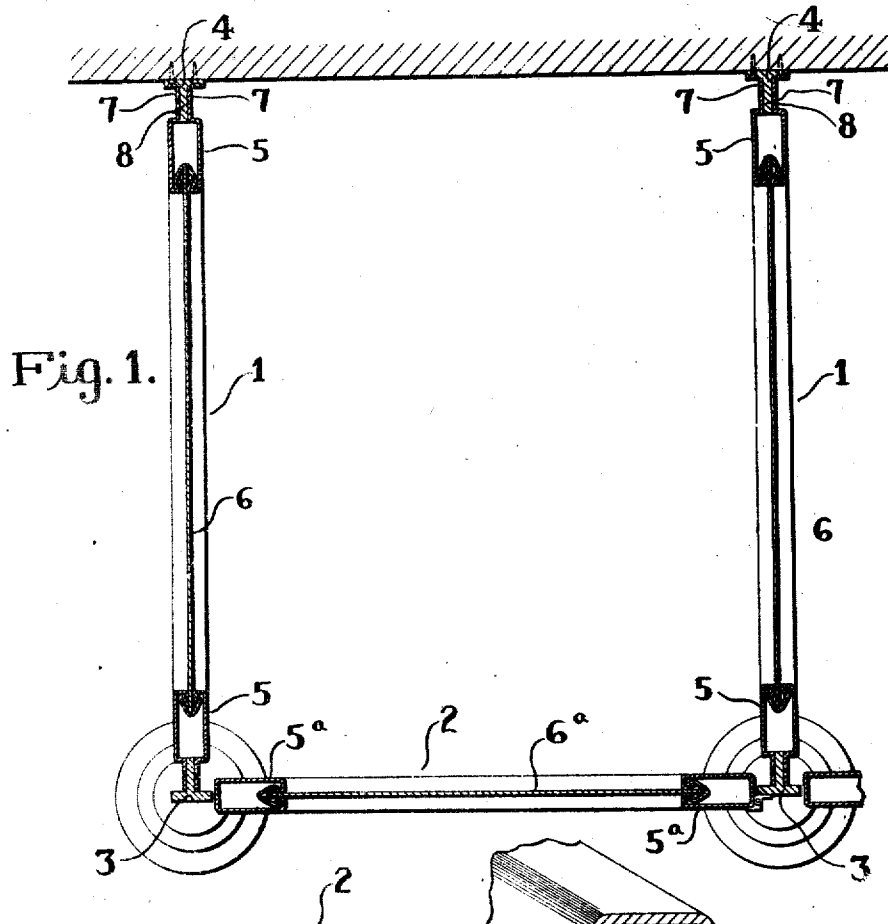


G. A. BETZ.
SHEET METAL DOOR OR PARTITION CONSTRUCTION.
APPLICATION FILED AUG. 29, 1919.

1,343,545.

Patented June 15, 1920.



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SHEET-METAL DOOR OR PARTITION CONSTRUCTION.

1,343,545.

Specification of Letters Patent.

Patented June 15, 1920.

Application filed August 29, 1919. Serial No. 320,665.

To all whom it may concern:

Be it known that I, CHARLES A. BETZ, a citizen of the United States, residing in the city of Jersey City, State of New Jersey, have invented a new and useful Improvement in Sheet-Metal Door or Partition Constructions, of which the following is a specification.

The invention is an improvement in sheet metal door or partition constructions, such as are used, for example, for toilet partitions. The object is to provide a construction which shall be rigid or non-buckling, and at the same time simple and easily fabricated and assembled. This is accomplished by a combination of a boxed frame member, slotted and provided with internal divergent lips, a panel sheet entered in the slot and between the lips, and a channeled locking strip with convergent sides compressively embracing the lips, as will hereinafter be more particularly set forth.

In the accompanying drawings, forming a part hereof:

Figure 1 is a horizontal section through a part of a toilet partition structure of the type disclosed in my Patent 1,304,013 of May 20, 1919;

Fig. 2 is an enlarged fragmentary sectional perspective of the door of Fig. 1; and

Fig. 3 is a view of a corner of the door, partly in elevation and partly broken away and in section.

A partition structure such as shown in Fig. 1 comprises a plurality of partitions proper 1 and doors 2 hung between the fronts of the partitions. As disclosed in my prior patent the partitions are united at the front to T-shaped post members 3 and at the back to similar irons 4, which are secured to the wall. Each partition comprises front and back stiles 5 and a panel sheet 6. These stiles are formed each of two separate halves, having flanges 7 which are spot-welded to the flange 8 of the support between them. The doors consist each of a panel sheet 6*, framed by stiles 5* and rails 5*. The invention is applicable, as illustrated, to both the partitions and the doors.

Whereas in my prior patent the stiles and rails flatly embraced the panel sheets, I now

make these frame parts of hollow boxed form, with their interiors substantially wider than the sheets. Each of said members is slotted centrally along its inner side, that is to say the side toward the center of the panel, for the reception of the marginal portion of the sheet. Internally and at opposite sides of the plane of the slot, the hollow stile or rail is provided with a pair of inclined lips 9, which extend longitudinally of the member and diverge laterally from each other and away from the entrance of the slot. In the preferred construction these lips are integral with the wall of the frame part, being formed by bending the metal inwardly of the inclosure from the sides of the slot.

Said lips are clasped by a channeled lock strip 10, the forward side portions of which are convergently inclined as indicated at 11 to hook under the lips in face contact therewith. This strip is driven endwise onto the lips, requiring to be forced somewhat open for the purpose, and is of sufficiently heavy and resilient material so that when in place it exerts a substantial clamping pressure on the lips, holding the sides of the slot tight against the panel sheet. The widest region of the lock strip is across the edges of the lips, and the engagement of the inclined faces not only forms a superior clamp for the lips but draws the rear part of the channel against the edges of the lips and thereby prevents loosening of the lock. The channel strip is preferably made substantially deeper than the lips, and may be of the approximate lozenge form shown. Its convex back, that is to say the bottom of the channel, may constitute an abutment for the edge of the sheet, which is shown extending inwardly beyond the lips. It will be perceived that the lock strip, the edge of the panel, and the lips do not have to be made for an exact or close fit, as the clamping effect of the lock on the inclined lips renders the device self-adjusting through certain limits.

What I claim as new is:

1. A sheet metal door or partition construction, comprising a boxed frame part having its inner side slotted and provided with internal diverging inclined lips, a panel

sheet entered in the slot and between the lips, and a channeled lock strip having converging inclined side portions in clasp-
ing face contact with the diverging inclined lips.
5 2. A sheet metal door or partition construction, comprising a boxed frame part having its inner side slotted and provided with internal diverging inclined lips, a panel

sheet entered in the slot, and a channeled lock strip widest across the edges of the lips 10 and having a convex back projecting rearwardly from the lips and convergent inclined forward side portions hooked under the divergent inclined lips in clasp-
ing face contact therewith.

CHARLES A. BETZ.