

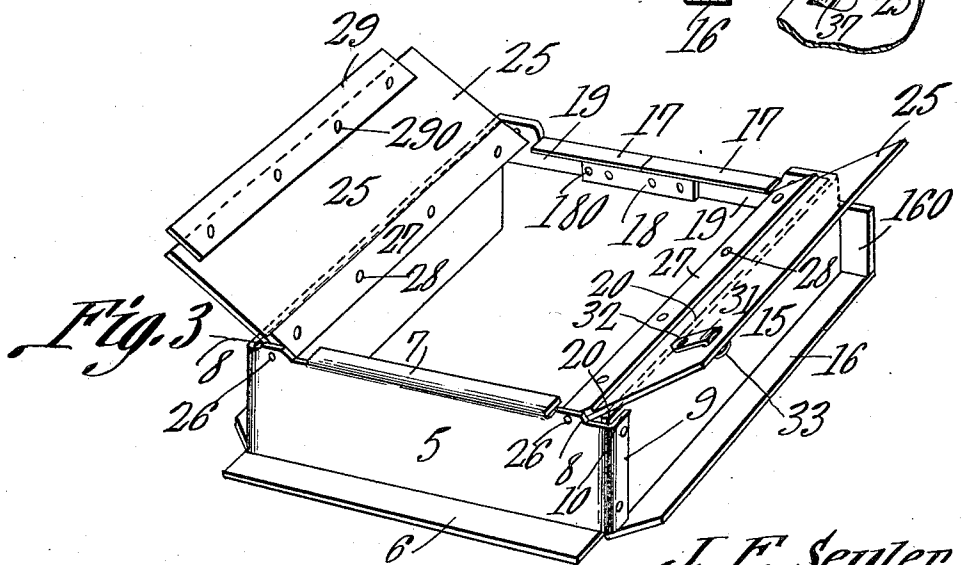
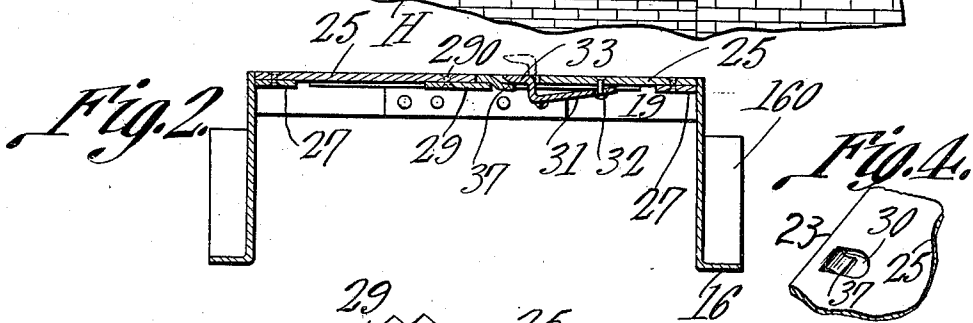
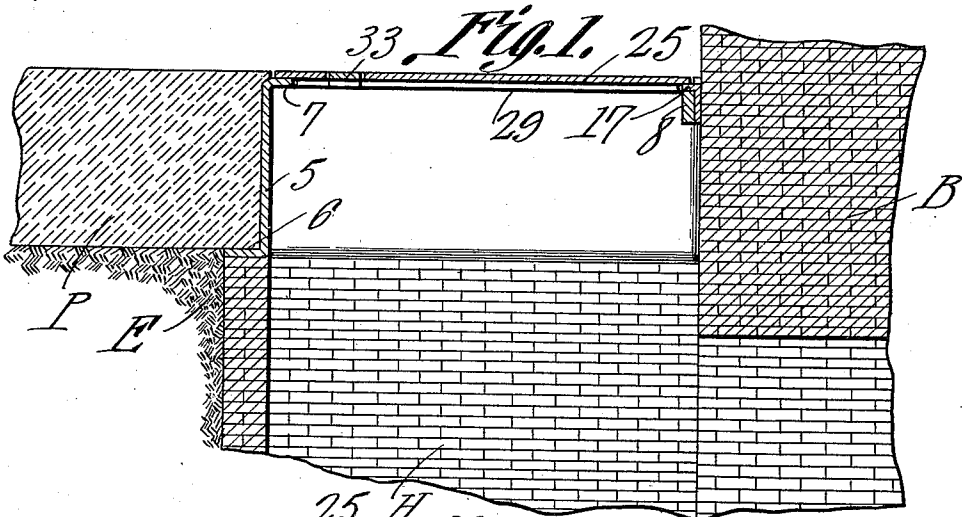
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CELLAR DOOR.

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1,009,104.

Patented Nov. 21, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN F. SEYLER AND NEWTON H. DUNKLE, OF LOCK HAVEN, PENNSYLVANIA.

CELLAR-DOOR.

1,009,104.

Specification of Letters Patent.

Patented Nov. 21, 1911.

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To all whom it may concern:

Be it known that we, JOHN F. SEYLER and NEWTON H. DUNKLE, citizens of the United States, residing at Lock Haven, in the county of Clinton, State of Pennsylvania, have invented a new and useful Cellar-Door, of which the following is a specification.

This invention relates to vault covers in the class of paving, and more particularly it is a cellar door structure made entirely of metal; and the object of the same is to construct such an article of as few pieces as possible and yet permit it to be made in sizes.

To this end the invention consists in the structure of a door, its frame, and its handle as hereinafter more fully described and claimed and as shown in the drawings wherein—

Figure 1 is a sectional view through the closed door, its frame, and the masonry or brick work which surrounds it. Fig. 2 is a section through the closed door and its frame taken at right angles to the sectional line of Fig. 1. Fig. 3 is a perspective view of the frame and the door open. Fig. 4 is a perspective detail which will be referred to hereinafter.

In the drawings the letter H is employed to denote a hatchway or cellar opening surrounded by masonry or brick work here designated by the letter B, and P designates a pavement or sidewalk or other element superimposed above the earth E.

It is the object of the present invention to construct a double cellar door and its frame in such manner that when the doors are closed their upper faces and even the upper face of the handle will lie flush with the upper face of the pavement P so that it will be impossible for the casual pedestrian to stumble over any part of the door, its frame, or its handle.

Coming now more particularly to the present invention, the frame is by preference made in three metallic members. One member forms one end of the frame as shown near the reader in Fig. 3, and comprises an upright wall 5 preferably having a horizontal flange 6 at its lower edge, 7 designates a lip inturned from its upper edge and extending throughout most of the length thereof, 8 designates ears rising from said upper edge at the ends of said lip, and 9 designates wings or extensions from the ends of the member bent at right angles to

the wall 5 and whose upper edges 10 stand flush with the upper face of the lip 7 in a plane above which the ears 8 project as seen. It will be obvious that this member can be employed whether the doors and the next two adjacent side members are longer or shorter than as shown in Fig. 3, but when the frame is to be made wider in a direction at right angles to the pivotal lines of said doors this member will have its wall 5, flange 6 and lip 7 made longer. The frame includes two other members, a description of one of which will suffice for both because they complement each other as also illustrated in this view. Each member comprises an upright wall 15 preferably having a flange 16 along its lower edge and also perhaps an upright extension 160 at one end of said flange, 19 denotes a wing extending at right angles from one end of said wall 15, and 17 an inturned lip along the upper edge of this wing and whose upper face is flush with the upper face of the lip 7. The wing 19 corresponds rather closely with the wing 9 of the front member above described, except that the former is an extension of only the upper part of the wall 15 as will be clear, and the lip 17 corresponds somewhat with the lip 7 of the above described member except that the former is made only half the length of the lip 7 so that the lip 17 meets the companion lip 17 at a point opposite the center of the wall 5. A strip 18 laps the meeting point between the lips and is bolted or riveted as at 180 to the two wings 19 as best seen in Fig. 3. The upper edge 20 of the wall 15 preferably rises to a line parallel with the upper edge of the ear 8 and forms a support for the doors when they are opened as shown in Fig. 3, and it might be here stated that said upper edge 20 stands above said upper edge 10 a distance equal to the thickness of the doors for a purpose which will appear below.

It will be observed that by the use of two of the members just described, which might be called the sides of the frame, and one of the members previously described which might be called the ends thereof, a complete rectangular frame can be made up; and if it is to be longer than shown, the walls 15 and flanges 16 must be longer, although the same member 5 and the same length of the wings 19 and lips 17 can be used. If the frame is to be wider than described, the same side walls 15 can be employed, but a longer end

member 5 will be needed and it will be necessary to lengthen the wings 19 and lips 17. Hence it will be seen that the frame can be changed in one dimension without altering two of its sides, or it can be changed in the other dimension without altering the other two sides. It is also quite obvious that the walls 5 and 15 could be made higher or lower, and of course the flanges 6 and 16 could be widened or could in fact be omitted.

The doors mainly are duplicates of each other and a description of one will suffice for both except as to their slight differences. Each comprises a rectangular sheet metal body 25 of a length to permit its ends to rest upon the lips and of a width of half that of the frame, and trunnions 26 projecting from the inner corners of the door are pivoted in eyes through the ears 8 as shown. We prefer to form these trunnions at the extremities of a strip 27 which is bolted or riveted at 28 along the outer edge of the body 25, although this construction is not necessary. The trunnions 26 at one end of the doors are pivoted in the eyes through the ears 8 as stated above and at the other end of the doors are pivoted in the wings 19 at the ends of the lips 17. One door has a lip 29 riveted as at 290 beneath its free edge and in a lower plane so that the free edge of the opposite door may rest thereon, and this lip must be shorter than the distance between the inner edges of the lips 7 and 17 so that it can stand between them when the door is closed. The use of separate strips 27 to carry the trunnions 26 permits the removability of a door body 25 for replacement as when it becomes cracked or warped, although ordinarily it may be possible to deflect the ears 8 outward a trifle sufficiently to permit the trunnions 26 to be slipped out of them so that the entire door and its strip (if one be employed) can be withdrawn for repair purposes.

The handle of this improved door can be very easily made. As seen in Fig. 4, one door body 25 is given a cut-out 30, and the metal within it is deflected downward into a lip 37 standing in a plane immediately below the lower surface of the body and projecting away from the free edge 23 of said body. The handle has an L-shaped shank 31 loosely bolted as at 32 beneath the body 25, and the outer end of this shank passes upward through the opening 30 so that the hand-hold 33 may normally lie within the cut-out by its own gravity as best seen in Fig. 2. When it is desired to raise this door the operator inserts his finger in the rounded end of the cut-out and lifts the handle until he can put his hand under its free edge, then by putting his hand beneath it he can raise this door, and afterward the other

door. Thus it will be seen that the handle as a whole stands normally with its upper part flush with the entire upper face of both doors, and the latter stand with their upper faces flush with the upper edges 20 of the side members 15 and the upper ends of the ears 8, and as a result there is nothing rising above the plane of the pavement P upon which a careless pedestrian could stumble. When the doors are opened as shown in Fig. 3, they lie obliquely across the upper edges 20 of the side members 15, or of course they could be connected by the bar ordinarily used to hold them upright and prevent pedestrians from falling into the hatchway. As above stated, all members are preferably of metal, and by adjusting the sizes of parts the size of the entire door and its frame can be altered at will.

What is claimed is:

1. In a cellar door, the combination of a frame constituting an end wall having an inturned lip along the upper edge and ears rising above its upper edge at the ends of the said lip, the said ears having eyes therein, and side walls connected at one end with the end wall each having a wing projecting from the other end thereof, the said wings having inturned lips; a pair of doors, strips secured beneath their outer edges and having trunnions projecting from their extremities which are pivoted at one end in the said eyes and at the other end in the said wings at the ends of the said lip; a lip on the free edge of one door adapted to pass beneath the free edge of the other door; and a handle in the latter door.

2. In a cellar door, the combination with a frame having upstanding ears near its corners provided with eyes, and two doors having trunnions pivoted in said eyes and adapted to stand with their upper faces in a single plane when they are closed, one door having a cut-out near its free edge and the material within said cut-out being bent downward and away from said edge into a lip; of a handle comprising an L-shaped shank loosely bolted beneath this door and extending upward through said cut-out, and a hand piece at the extremity of said shank of a shape to lie upon said lip by its gravity and with its upper face flush with the upper face of the door.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of witnesses.

JOHN F. SEYLER.
NEWTON H. DUNKLE.

Witnesses:

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