April 26, 1932. H. D. GARBER ET AL 1,855,756

PRISON CELL CONSTRUCTION

Filed Dec. 18, 1931 2 Sheets-Sheet 1

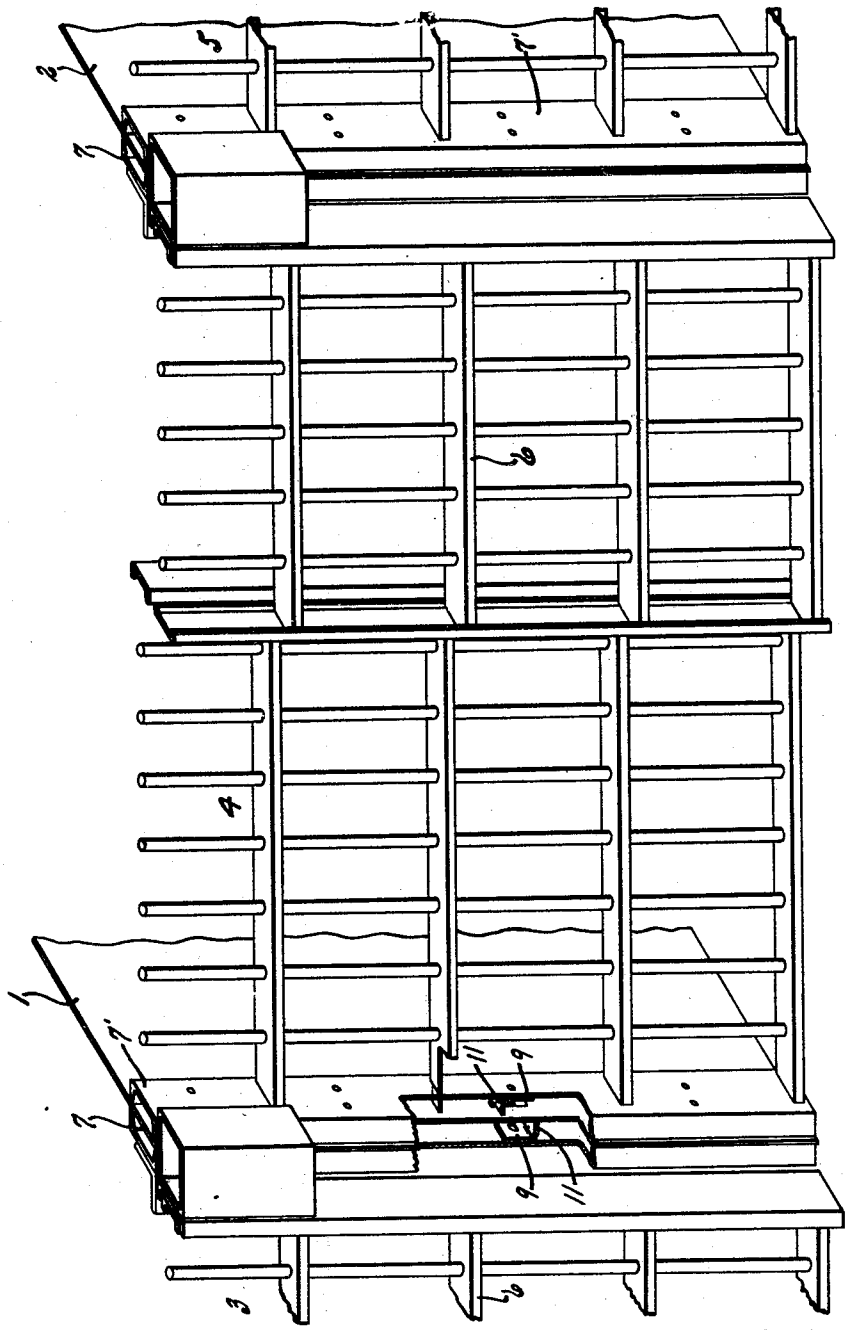


Fig. 1

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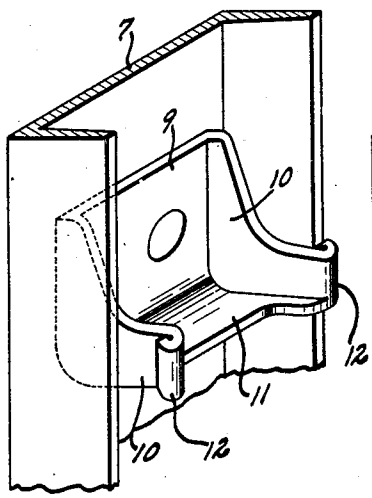


Fig. 2

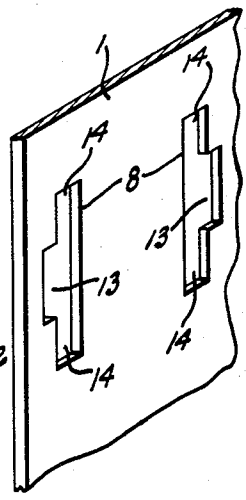


Fig. 3

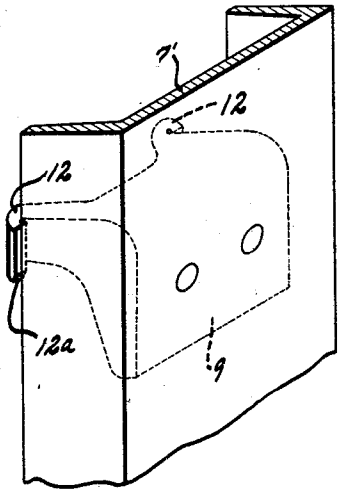


Fig. 4

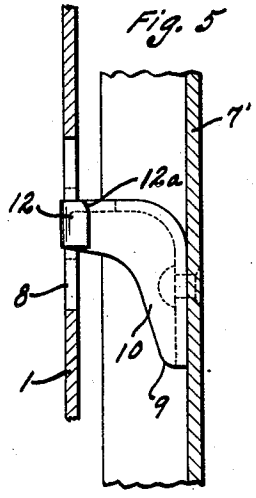


Fig. 5

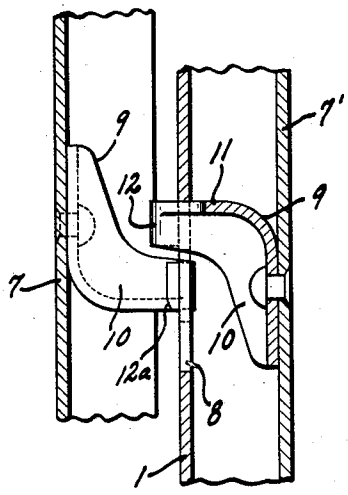


Fig. 6

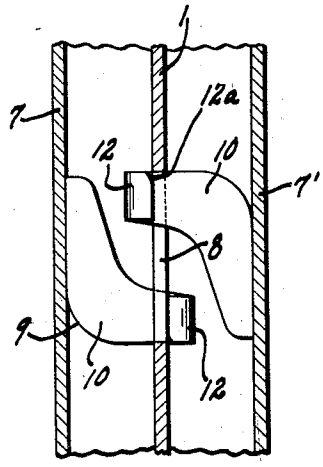


Fig. 7

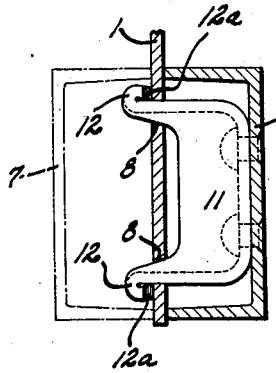


Fig. 8

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UNITED STATES PATENT OFFICE

HARRY D. GARBER, OF CUYAHOGA FALLS, AND WALTER W. MEIER, OF CLEVELAND, OHIO, ASSIGNORS TO THE VAN DORN IRON WORKS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO

PRISON CELL CONSTRUCTION

Application filed December 18, 1931. Serial No. 581,883.

This invention relates to prison cell structure, and more particularly to interlocking means whereby a row of cells may be assembled from a plurality of wall panels, each panel comprising a cell wall unit, the assembly being accomplished without the bolts, rivets, or the like, which have been usual in the art. Thus the wall panels themselves may be formed in the shop, each as a complete unit, and the assembly and erection of the cell row may be solely from these units.

The invention is particularly adapted for embodiment in the partition wall panels which divide the cells, and in the cell front wall panels.

The general object of the invention then is to provide for an interlocking panel arrangement. Another object is to provide that the order of assembly of one unit upon the other be in a predetermined sequence so that disassembly is impossible except by reversing the same sequence; and still another object is to provide that in the completed structure the parts which effect the interlock are protected, and are concealed, so that the nature of the joint is unascertainable from a mere observation of the structure after assembly.

The exact nature of this invention together with further objects and advantages thereof will be apparent from the following description taken in connection with the accompanying drawings, in which Fig. 1 is a detail in perspective of a typical cell structure in which the invention is employed; Figs. 2, 3 and 4 are enlarged perspective views of parts at one of the joints appearing in Fig. 1, the relative positions of the parts in these three figures indicating their relation in the completed assembly; Figs. 5, 6 and 7 are enlarged details in vertical section through one of the joints, illustrating the manner of assembly; and Fig. 8 is a horizontal section at one of the joints.

With reference now to the drawings, the pertinent parts of five wall panel units are illustrated. These are two partition wall panels 1, 2, and three cell front wall panels 3, 4 and 5. It will be appreciated that both partition wall panels extend forwardly from a rear wall, and each cell front wall panel includes a sliding door 6.

Each partition wall panel may be a single sheet of metal as indicated, extending forwardly to the front extremity of the adjacent cell front wall panels.

Each cell front wall panel extends entirely between its partition wall panels, and is provided at each of its ends with a permanently secured pilaster end member 7. Each pilaster has a hollow opening onto the adjacent partition wall, and in fact the pilasters may be simply rolled steel channel irons with flanges turned outwardly as indicated. Each partition wall panel then extends between a pair of these pilasters the four flanges of which bear against the partition panel and the hollows of which are opposite each other and extend vertically along the partition panel adjacent the edge of the latter.

Each partition panel has a number of perforations 8, arranged in pairs, the pairs being vertically spaced from each other, and all located to open into the hollows of the adjacent pilasters and hence to be concealed by the pilasters.

With reference now to Figs. 2–8 of the drawings, for each pair of openings 8 in each partition panel, each of the adjacent pilasters 7 carries a bracket 9. Each bracket 9 has a flat base portion riveted or otherwise permanently secured within the hollow of its pilaster, a pair of arms 10 upstanding from the base portion, and a web 11 joining the arms. The arms are hooked as at 12 and extend beyond the extremities of the pilaster flanges.

Each of the openings 8 in the partition panel 1 has an enlarged portion 13 which will receive one of the hooks 12, and a pair of notches 14 oppositely disposed and each adapted to receive a bracket arm 10 but not allow passage of the hook 12 of the latter

therethrough. The relative location of the brackets 9 and openings 8 is such that when a partition panel 1 and its two adjacent cell front panels are upright and supported at the same level as upon the same floor, the arms 10 of the brackets on the pilaster of one of the cell front panels will lie in the upper set of notches 14, while the arms of the brackets on the pilaster of the other cell front panel will occupy the lower set of notches 14.

Thus assembly of these three panels may be had beginning with the parts as in Figs. 2–4, and manipulating the parts as indicated in Figs. 5–7. Supposing the pilaster 7′ of the right-hand cell front panel to be upright and resting on the floor, the partition wall panel 1 is lifted slightly, so that the enlarged parts 13 of its perforations 8 will slide over the hooked ends 12 of the brackets 9 on the pilaster 7′, as indicated Fig. 5; whereupon the partition panel 1 may be lowered to the floor level, the arms 10 of the brackets entering the upper notches 14 in the partition panel; the latter thus being secured against the pilaster 7′ by the hooks 12 of all of the brackets, as in Fig. 6. The hooks are preferably chamfered as at 12*a* to assist seating of the parts in this operation.

The other cell front panel is then brought up and lifted so that the hooks 12 of the brackets of its pilaster 7 will enter the enlarged portions 13 of the perforations of the partition panel, as indicated Fig. 6. Thereafter the cell front panel is manipulated to seat as in Fig. 7, causing the arms 10 of its brackets to enter the lower notches 14 in the partition panel, thus securing this second cell front panel with the partition panel and hence also with the first cell front panel, as indicated Fig. 7.

The next partition panel may be added to the second cell front panel, the third cell front panel added to the second partition panel, etc., all in the manner indicated.

It will be apparent that in the completed structure the openings 8 and the brackets secured therein are entirely concealed and protected by the pilasters 7. As indicated in Fig. 8, each pilaster overlies, protects, and conceals within its hollow, the hooks 12 of the opposite pilaster.

The brackets are preferably of sheet metal and are of simple form, and consequently may be cheaply made. Yet their use most effectively provides the desired rigidity to the assembled structure.

Obviously in the completed structure none of the panels except that last added to the assembly, may be separated from its adjacent panels.

What we claim is:

1. Prison cell structure comprising a partition wall panel, a cell wall panel extending therefrom and including a permanently secured pilaster end member having a hollow opening onto said partition panel, said partition panel having a perforation opening into said hollow, and said pilaster having a bracket secured in its hollow and including an arm extending through said perforation and engaging the partition wall panel adjacent the latter, and a pilaster on said partition panel opposite said cell panel, covering said perforation and having a hollow to receive said bracket arm.

2. Prison cell structure comprising a partition wall panel, a pair of cell wall panels extending oppositely therefrom and each including a permanently secured pilaster end member having a hollow opening onto said partition panel, said partition panel having a perforation between said pilasters, and each pilaster having a bracket secured in its hollow and including a hooked arm extending through said perforation into the hollow of the opposite pilaster and therewithin engaging the partition wall panel adjacent the perforation.

3. Prison cell structure comprising a partition wall panel, a pair of cell wall panels extending oppositely therefrom and each including a permanently secured pilaster end member having a hollow opening onto said partition panel, said partition panel having a perforation between said pilasters, and each pilaster having a bracket secured in its hollow and including a hooked arm extending through said perforation into the hollow of an opposite pilaster and therewithin engaging the partition wall panel adjacent the perforation, said perforation having an enlargement to clear said arms during the assembly of said panels.

4. Prison cell structure comprising a partition wall panel, a pair of cell wall panels extending oppositely therefrom and each including a permanently secured pilaster end member having a hollow opening onto said partition panel, said partition panel having a perforation between said pilasters, and each pilaster having a bracket secured in its hollow and including a hooked arm extending through said perforation into the hollow of an opposite pilaster and therewithin engaging the partition wall panel adjacent the perforation, said perforation including a portion of size to allow insertion of one of said arms with its hook during the assembly of said panel, and including another portion contiguous therewith and of size to clear an arm only upon completion of the assembly.

5. Prison cell structure comprising a partition wall panel, a pair of cell wall panels extending oppositely therefrom and each including a permanently secured pilaster end member having a hollow opening onto said partition panel, said partition panel having a perforation between said pilasters, and each pilaster having a bracket secured in its hollow and including a hooked arm extending

through said perforation into the hollow of an opposite pilaster and therewithin engaging the partition wall panel adjacent the perforation, said perforation including a central portion of size to allow insertion of one of said arms with its hook during the assembly of said panels, and also including a pair of notches oppositely extending from said central portion and each of size to clear an arm only, said brackets being located on their pilasters each to lie in one of said notches upon completion of the assembly.

In testimony whereof we hereby affix our signatures.

HARRY D. GARBER.
WALTER W. MEIER.