March 22, 1927. 1,621,850

R. METTETAL

GREENHOUSE OR CONSERVATORY BENCH

Filed Aug. 27, 1926

Fig. 1

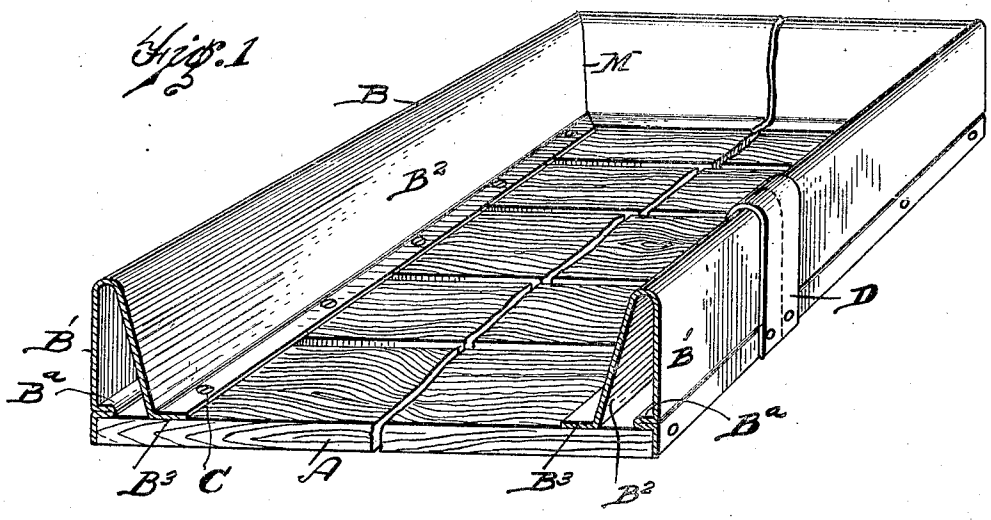


Fig. 2

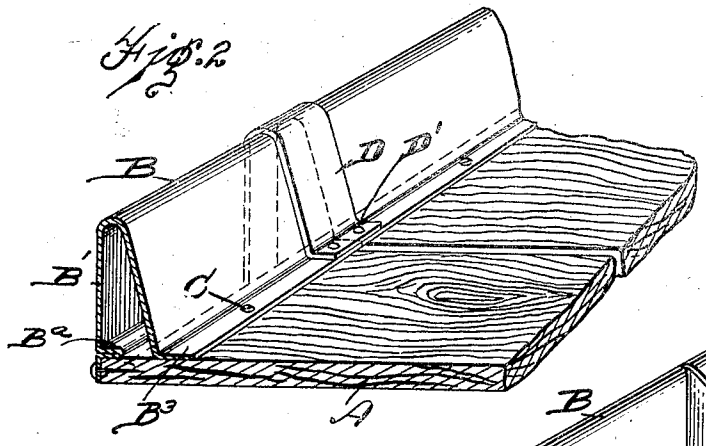


Fig. 3

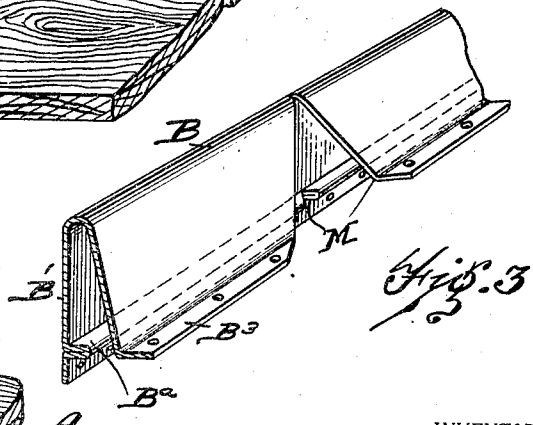
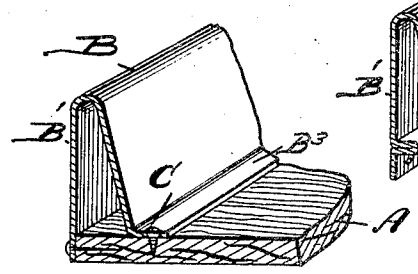


Fig. 4



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UNITED STATES PATENT OFFICE.

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GREENHOUSE OR CONSERVATORY BENCH.

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My invention relates to an improvement in the construction of greenhouse or conservatory benches shown in the accompanying drawings and more particularly described in the following specification and claims.

It is well-known among florists that the usual wooden rail forming the side walls of greenhouse benches are unsatisfactory for the reason that while the outer surface of the rail may be dry through exposure to the sun and the heat of the greenhouse, the inner surface of the rail is always in contact with moist soil causing the rail to split and warp out of shape and thus become separated and detached from the bottom or floor of the bench which often results in injury to the hands and clothing of those who may come in contact with the benches.

A further objection to the wooden side rail is that the soil dries out quickly due to the wooden rails absorbing the moisture of the soil,—the action being accelerated by the relatively higher temperature to which the outer surface of the rails are exposed.

This invention is designed to overcome these and other objections to the present form of bench construction and to that end a sheet metal rail, inexpensive in construction, and approximately of an inverted V-shaped form in cross-section is attached to the floor-board of the bench,—its outer wall being vertical is secured by nails or screws to the edge of the floor while the inner wall, inclined from the upper edge of the rail to the floor of the bench, has a flange likewise secured to the floor by nails or screws;—the inner and outer walls of the rail forming a "dead-air" chamber which serves to overcome rapid evaporation of the moisture in the soil.

A further object of the invention is to construct the vertical outer wall of the rail with an inwardly directed ledge adapted to overlap the top of the bench floor thereby materially strengthening the rail that it may be adapted to carry the load of other benches which may be temporarily placed upon the rail without danger of breaking down the rail or loosening the nails securing it to the edge of the floor-board.

A further object of the invention consists in providing mitered corners rounded and unbroken on the outer surface thus eliminating the danger of a sharp edge which oftentimes results in the injury of hands or clothing of workmen or others while in the greenhouse.

With the foregoing and other objects in view which will appear as the description proceeds the invention further resides in the details of construction hereinafter described and claimed, it being understood that changes may be made in the precise embodiment of the invention herein disclosed without departing from the spirit of the same.

In the drawings accompanying this specification and forming a part thereof:

Figure 1 is a fragmentary perspective view of a greenhouse bench showing the sheet metal rail attached to the floor-boards of the bench.

Figure 2 is a fragmentary perspective view of the ends of two abutting rails attached to the floor of a bench, reinforced by and held beneath an overlapping strap conforming to the shape of the rail in cross-section.

Figure 3 is a fragmentary perspective view of the rail with its inner wall and flange mitered to form one of the corners of the bench rail.

Figure 4 is a fragmentary view of a modification of the bench rail in which the ledge overlapping the outer margin of the floor has been eliminated.

Referring now to the letters of reference placed upon the drawings:

A denotes the floor or platform of a greenhouse bench consisting of a plurality of boards spaced apart for drainage purposes as ordinarily provided. B indicates a sheet metal rail comprising a double wall substantially V-shaped in cross-section, nailed or screwed to the edge and top of the bench floor. The outer wall B^1 of the rail is substantially vertical and near its lower marginal edge is perforated for the passage of nails or screws to secure the rail to the edge of the floor-boards. Overlapping the top surface of the floor is a ledge B^3 formed by a return bend in the outer wall of the bench rail.

The purpose of this ledge is to stiffen the rail and to assist in supporting bench trays filled with soil or other heavy objects which may be temporarily placed upon the rail, thus relieving strain upon the nails C securing the rail to the edge of the floor of the bench.

The inner wall B^2 of the rail is inclined downwardly and inwardly from its upper

curved edge toward the floor of the bench, to brace and stiffen the walls of the rails, the inner wall having a projecting flange B^3 parallel with the floor perforated for the passage of nails or screws C for securing it to the latter.

As shown in Figure 3, the inner wall B^2 and the ledge B^a are mitered as at M that the outer wall B^1 may be bent at right angles to form the corners of the bench,—the outer wall is thus continuous and presenting rounded corners and thus avoids any possibility of injuring either the hands or clothing of those working around or passing near the benches.

To further strengthen the bench and to overlap and cover the abutting ends of the rails, a strap D—see Figure 2—is provided shaped to conform to the rail with a projecting foot D^1, pierced for the passage of nails or screws extending through the foot and flange of the rails into the floor of the bench,—the lower outer edge of the strap being secured by nails or screws extending through its marginal edge into the edge of the floor-boards. The mitered edges of the inner wall of the rail may be soldered together, though this has not been found necessary in practice.

The inner and outer walls are spaced apart to form a "dead-air" chamber which serves to prevent the rapid evaporation of moisture in the soil,—an objection raised to benches provided with the usual wooden rails.

It will be apparent that the metallic rail provides a smooth unbroken surface completely surrounding the floor of the bench presenting a neat and finished appearance, while its smooth and unbroken surface serves to overcome any chance of injury to the hands or clothing of workmen or others coming in contact with the benches.

Having thus described my invention what I claim is:

1. In a bench, a platform; a metallic rail surrounding said platform formed of sheet metal consisting of two walls spaced apart to form with the platform a closed air chamber; and means for securing the rail to said platform.

2. In a greenhouse bench, a platform; a metallic rail surrounding said platform comprising double walls of an inverted substantially V-shaped form to provide a closed air chamber with the inner wall of said rail bent to form a flange overlapping the platform, and means for securing the metallic rail to said platform.

3. In a greenhouse bench, a wooden floor; a rail secured to said floor formed of sheet metal bent to provide double walls spaced apart to form a closed air chamber, the outer wall being secured to the edge of the wooden floor with a return bend above the floor forming a ledge adapted to rest upon the top of the floor, the inner wall of said rail having a flange pierced for the passage of nails or screws; and means for securing said flange to the floor of the bench.

4. In a greenhouse bench, a wooden platform; a sheet metal rail secured to the wooden platform, comprising a vertical outer wall secured to the edge of the wooden platform and an integral inner wall inclined from the outer wall forming together substantially an inverted V-shaped rail in cross-section the lower edge of the inner wall bent to provide a flange pierced for the passage of nails or screws, whereby it may be secured to the wooden platform; and means for securing it to the wooden platform.

5. In a greenhouse bench, a plurality of aligned sheet metal rails each comprising a vertical outer wall and an integral inclined inner wall spaced apart and secured to the wooden floor to form a closed air chamber, the inner wall having a flange pierced for nails or screws, whereby it may be attached to the top of the floor, said outer wall having a return bend extending throughout its length and resting upon the top of the wooden floor, the lower marginal edge of the outer wall being pierced for nails or screws; straps shaped to conform to the cross-sectional elevation of said rails adapted to overlap the abutting ends of the aligned rails and pierced to receive nails or screws; and means for securing the rails and overlapping straps to the wooden floor.

6. In a greenhouse bench, a wooden floor; a rail formed of sheet metal bent to provide a double wall spaced apart to form a closed air chamber, the inner wall being inclined with reference to the outer wall to brace the latter and mitered at predetermined intervals, whereby the outer wall may be bent at righ angles to form corners conforming to the corners of the wooden floor to which the rail is attached.

In testimony whereof, I sign this specification.

RAPHAEL METTETAL.