

No. 780,774.

PATENTED JAN. 24, 1905.

W. G. BATE.
TILE BENCH FOR GREENHOUSES.
APPLICATION FILED APR. 18, 1904.

Fig. 1.

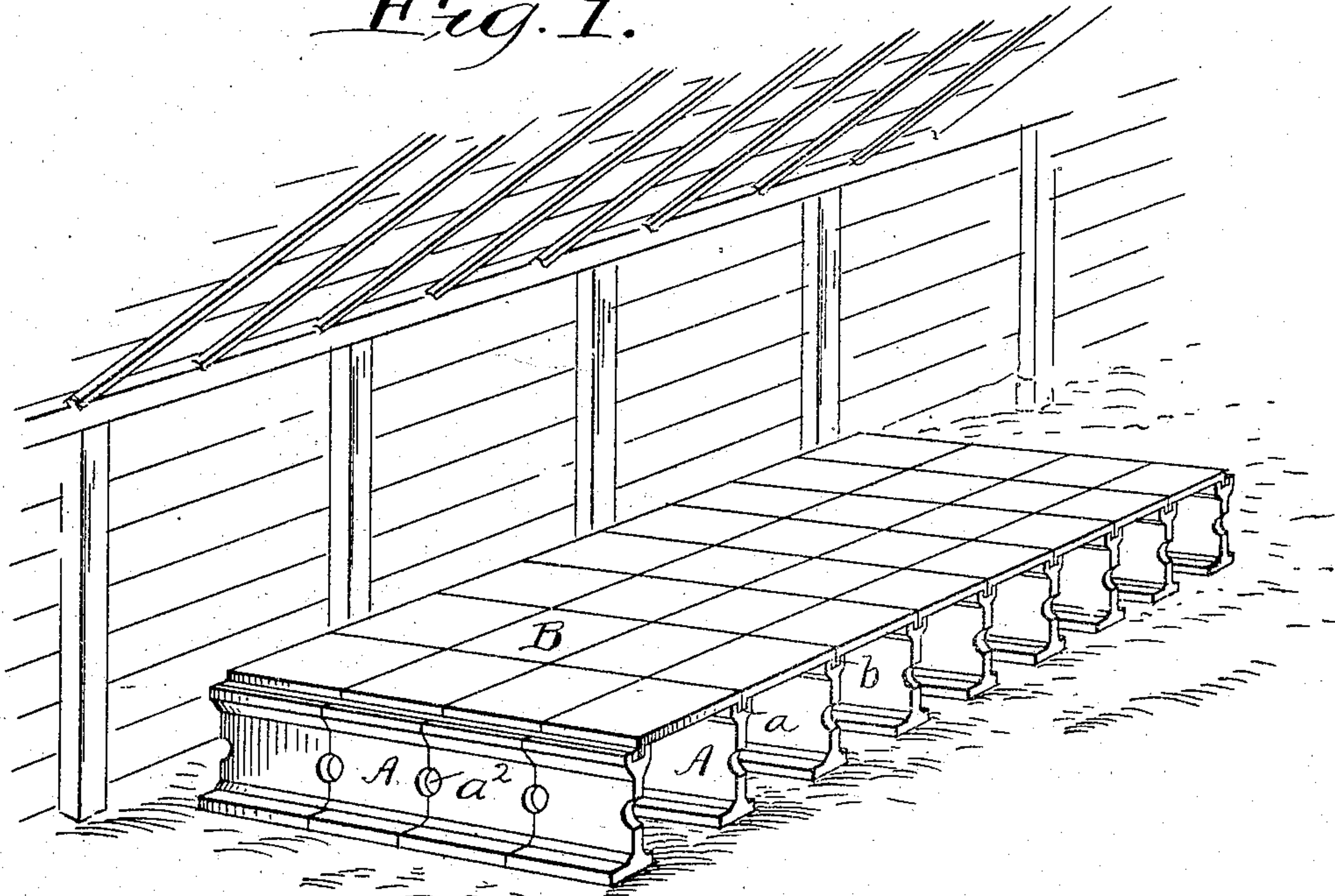


Fig. 2.

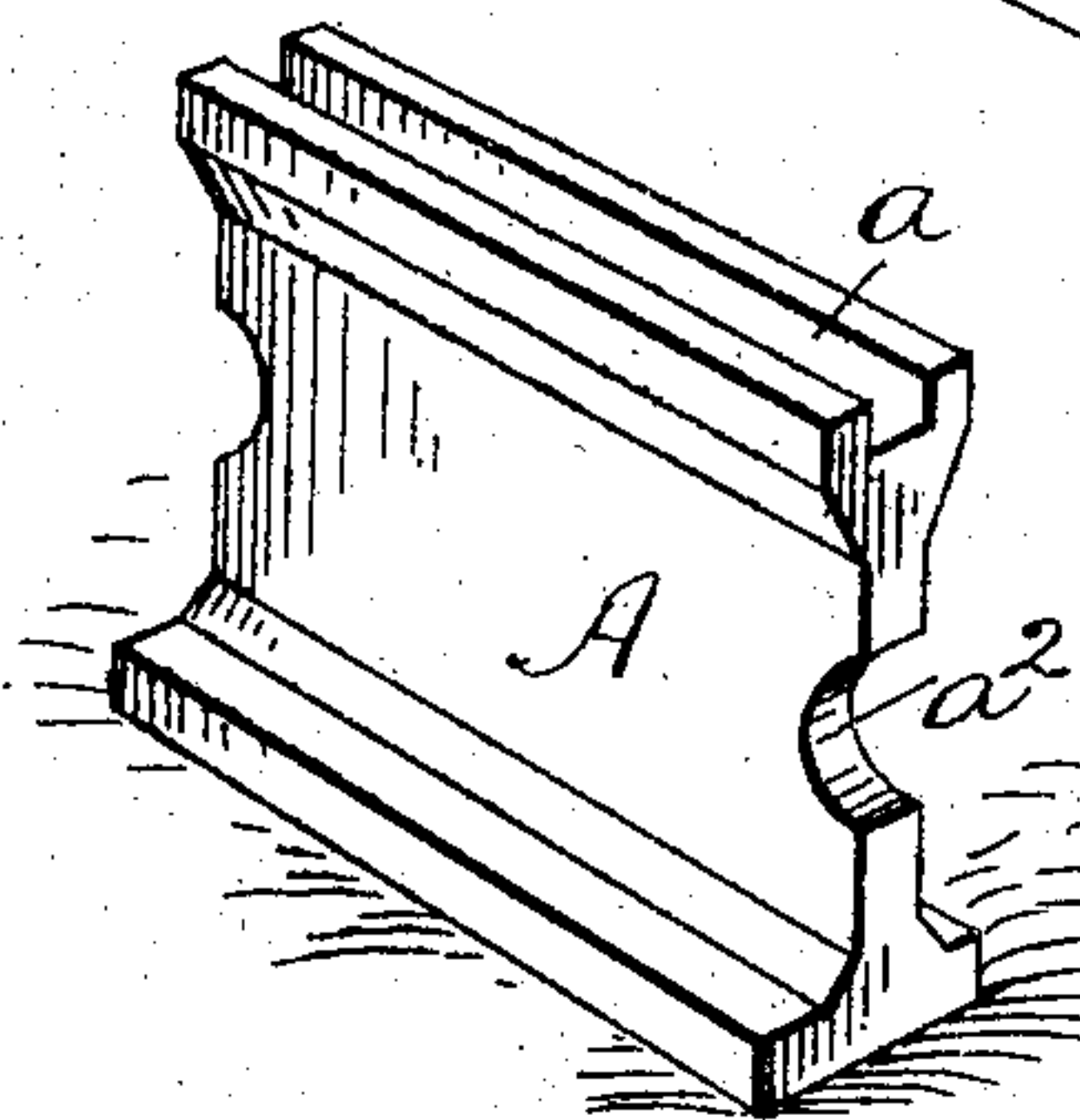
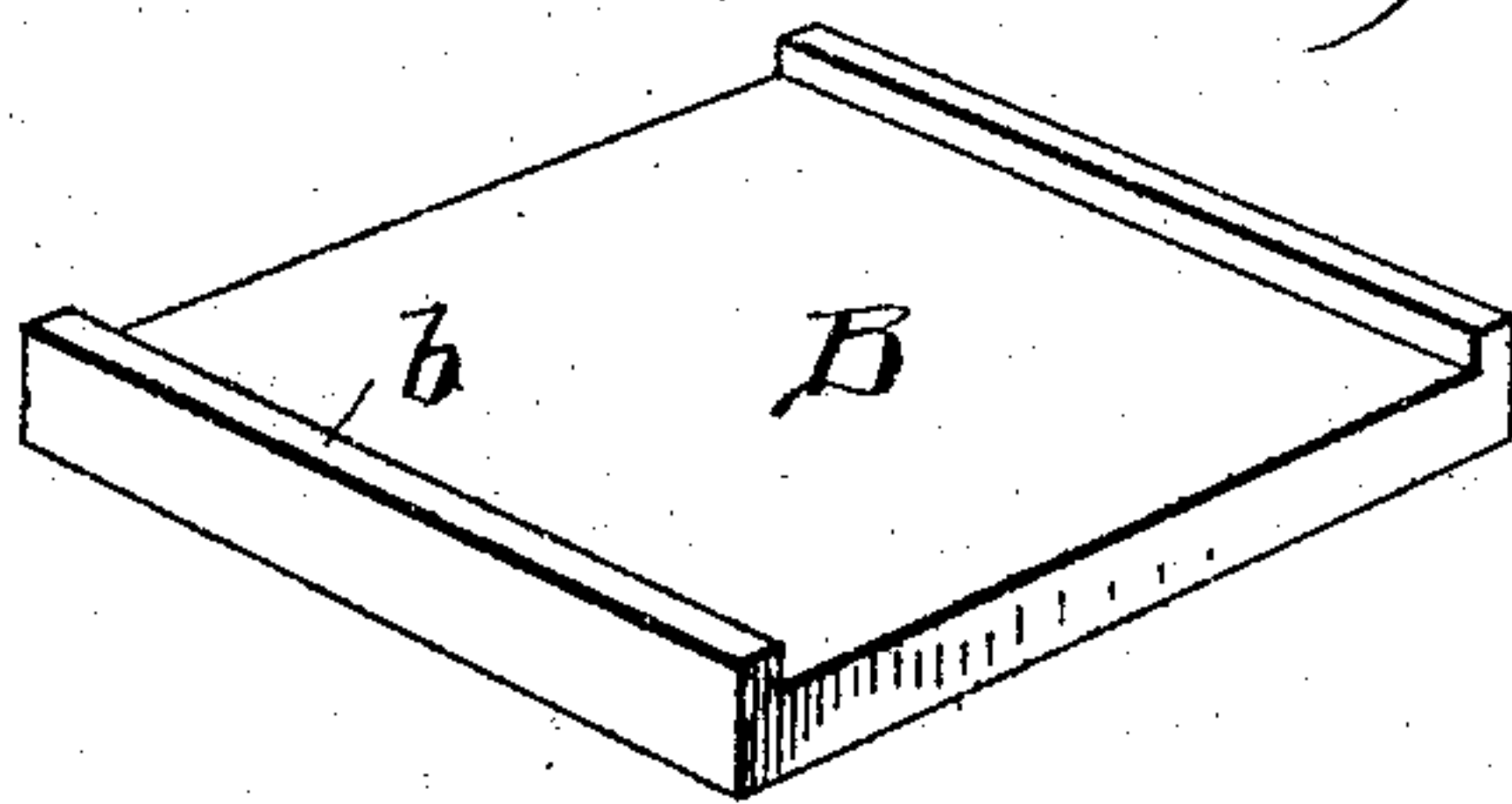


Fig. 3.

Witnesses.
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UNITED STATES PATENT OFFICE.

WARWICK GUY BATE, OF EAST CLEVELAND, OHIO.

TILE BENCH FOR GREENHOUSES.

SPECIFICATION forming part of Letters Patent No. 780,774, dated January 24, 1905.

Application filed April 18, 1904. Serial No. 203,617.

To all whom it may concern:

Be it known that I, WARWICK GUY BATE, a citizen of the United States, residing at East Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Tile Benches for Greenhouses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of this invention is to provide a greenhouse-bench of what may be termed the "knockdown" type—that is, it is one which is built up of suitable standards and spanning members which may be readily removable to form a bench of any convenient size or shape to meet the required conditions and after being so built up may be taken down at any time as readily as it was set up.

It is also the object of the invention to arrange the cooperating parts in such a manner that this knockdown feature may be fully carried out.

In carrying out the above objects the invention contemplates the use of vertical standards made of tiling, which are provided upon their upper ends with suitable grooves which freely receive the end portions of spanning members which are placed thereon. It is also important that these plates may be capable of being lifted off from the standards without in any way injuring the parts which form the connection. Then, too, it is of great importance to arrange these spanning members in a manner such that when one is entirely surrounded on all edges with other spanning members such a one can be removed without going to the trouble of removing the others about it. For instance, in case that one of the tiles in the middle of the bench—that is, with respect to the front and back—should become broken then another one may be put into its place without removing the others in front or in the rear of it.

Greenhouse-benches have heretofore been made of wood or iron, or both, and sometimes they have tile tops supported by wood or iron frames; but the wood portions of such benches rot, so as to become unsafe and useless in a comparatively short time, while the iron is

expensive and rusts rapidly. Of course deterioration of both said substances may be retarded by the use of paint; but this also is expensive.

The bench constituting my invention is made wholly of tile, which neither rusts nor rots and is an ideal material for absorbing moisture. It is light and the parts are easily assembled and has in a high degree one characteristic which is of great importance to greenhouse men—to wit, it is cheap.

The invention consists of the combination of upright tile standards and a top composed of tile plates spanning the interval between said standards and resting upon them and interlocking with them.

It also consists in a tile bench having other characteristics of construction, which are shown in the drawings, and hereinafter pointed out and claimed.

In the drawings, Figure 1 is a perspective view of a complete bench made up of a large number of standards and plates. Fig. 2 is a perspective view of the under side of one of the tile plates, and Fig. 3 is a perspective view of one of the standards.

Referring to the parts by letter, A represents a standard having a laterally-widened foot or lower edge. These standards are preferably as long as the tile plates B, which rest upon them, and they are preferably widened laterally at their upper edges. In the top of the upper edge of each standard is a longitudinal groove *a*, which receives freely the rib *b* on the under side of the edges of the tile plates.

In the simplest embodiment of the invention, which is that shown in the drawings, each plate B has a downwardly-projecting rib *b* at opposite side edges. The standards are arranged in rows, and these tile plates span the interval between the rows, and their edges rest upon the tops of the standards, and the ribs *b* enter the grooves *a*. These grooves and ribs are of such relative width that the two ribs substantially fit and fill the groove without binding at this point, whereby any of the tile plates or spanning-plates may be readily removed without interfering with or

disturbing those around it. This of course substantially prevents the sidewise falling of all or any of the standards and the consequent collapse of the bench. These standards and tile plates may be used, as described, to make benches of any width or length, and the size of the bench may be increased or decreased at will by taking away or adding the required standards and plates.

10 A notch a^2 is formed in the upright edge or in both upright edges of the standards. When the standards are assembled in rows, as shown, these notches form holes through which the steam-pipes may pass, and they also afford

15 passage-ways for transverse air-currents.

Having described my invention, I claim—

1. A greenhouse-bench consisting of substantially vertical tile standards, tile plates spanning the intervals between said standards and resting upon the upper ends thereof, and a tongue-and-groove connection between said standards and said plates whereby any of said plates may be readily removed without interfering with those about it.

25 2. A greenhouse-bench consisting of a plurality of vertical standards, tile plates spanning the intervals between said standards and resting upon the upper ends thereof, said standards having grooves upon their upper ends, and tongues carried by said tile plates for fitting into said grooves, said tongues and said grooves having straight sides whereby

any of said plates may be readily removed without interfering with those about it.

3. A knockdown greenhouse-bench consisting of a plurality of rows of vertical tile standards, combined with tile plates spanning the intervals between said rows and resting upon the upper ends of said standards and interlocking therewith.

4. A knockdown greenhouse-bench consisting of a plurality of vertical tile standards having each a longitudinal groove in its top combined with tile plates whose edges rest upon the tops of said standards, spanning the intervals between them, and have downwardly-projecting straight-sided ribs which enter said grooves.

5. A knockdown greenhouse-bench consisting of a plurality of rows of vertical tile standards each having a groove in its top and having a notch in one or both of its vertical edges, combined with tile plates whose edges rest upon the tops of said standards, spanning the intervals between them, and have downwardly-projecting straight-sided ribs which fit and fill said grooves.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

WARWICK GUY BATE.

Witnesses:

E. L. THURSTON,
B. W. BROCKETT.