

F. C. McCASLIN.
GREENHOUSE BENCH MOLD.
APPLICATION FILED MAR. 31, 1909.

974,685.

Patented Nov. 1, 1910.

3 SHEETS—SHEET 1.

Fig. 1—

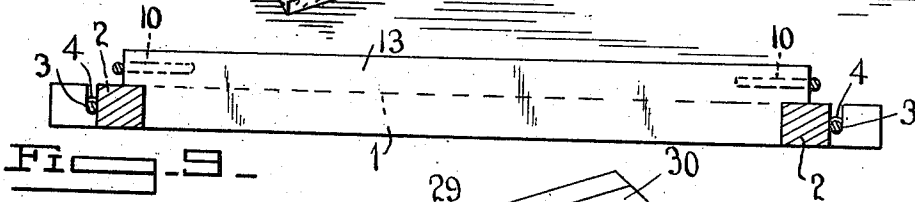
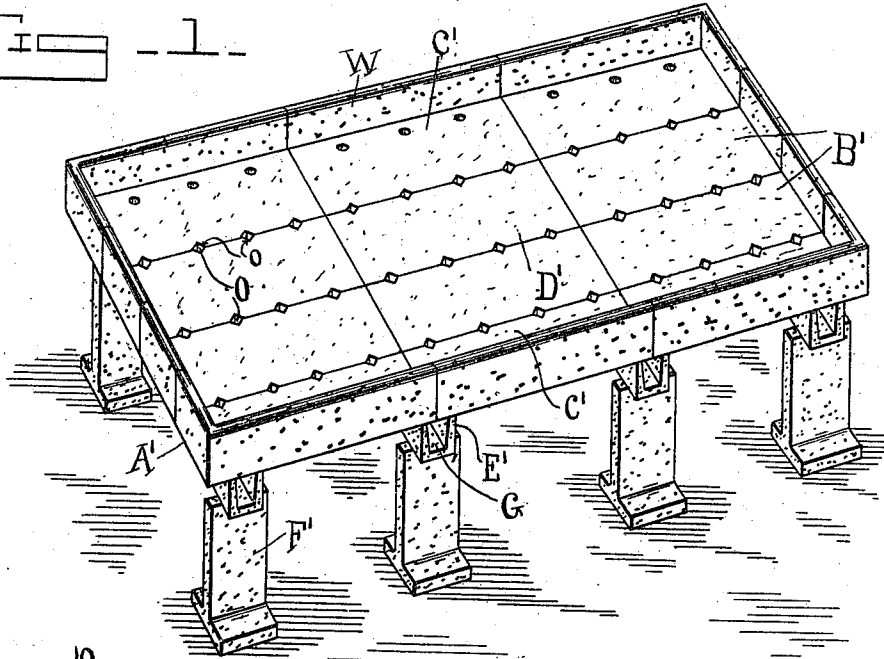
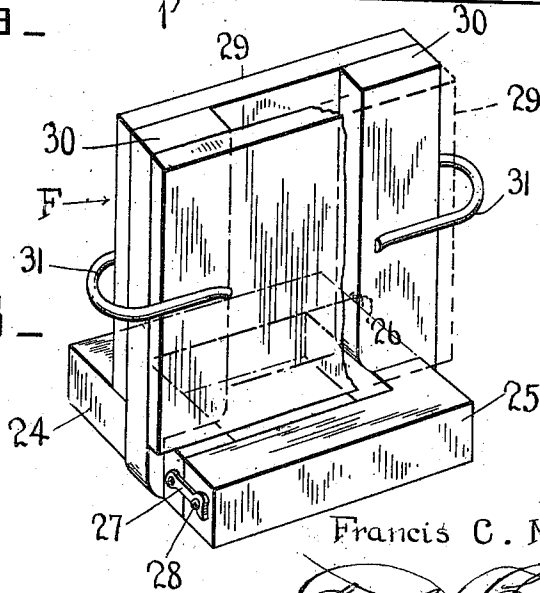


Fig. 3—



Witnesses

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By

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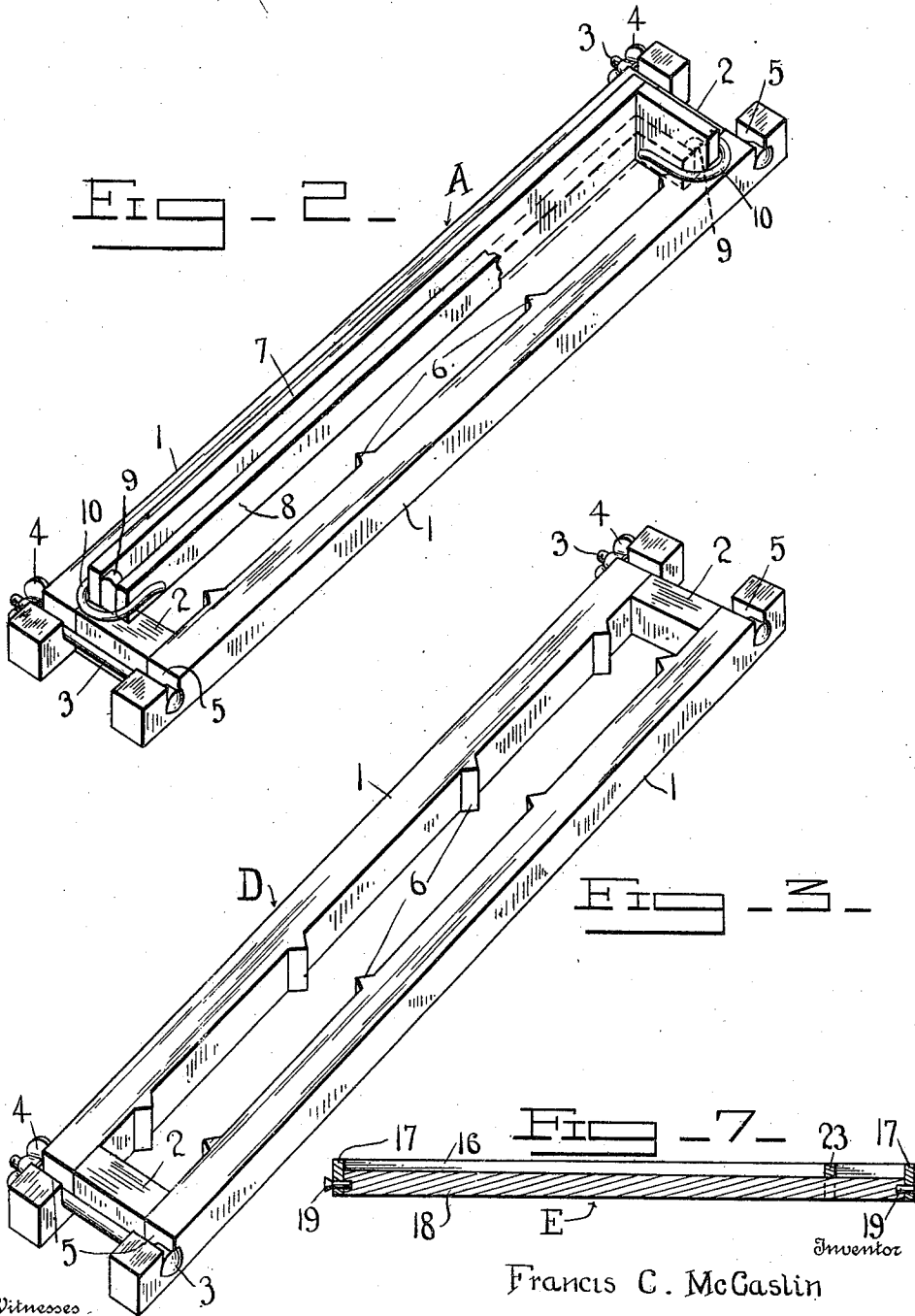
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3 SHEETS—SHEET 2.



Witnesses

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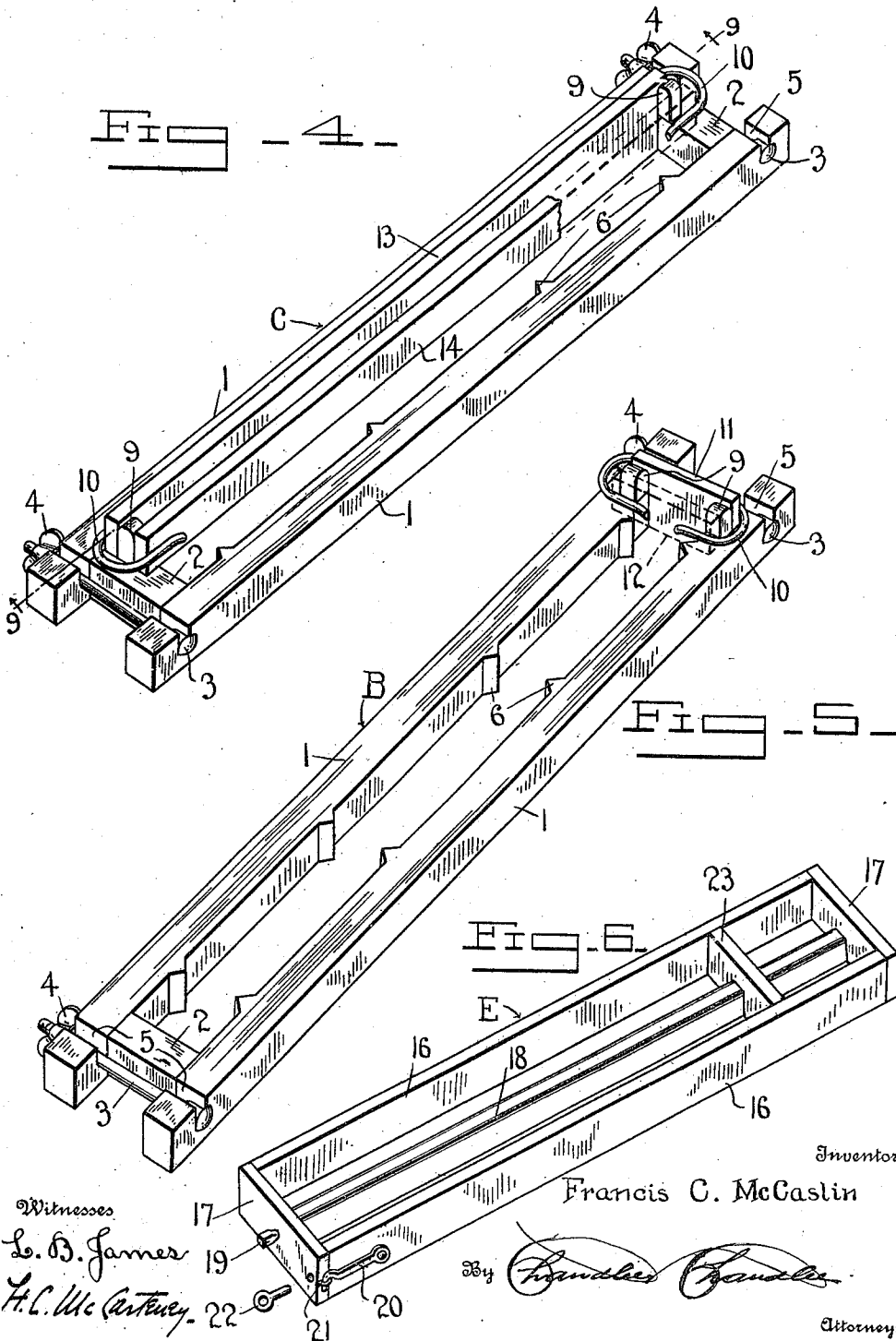
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3 SHEETS-SHEET 3.



UNITED STATES PATENT OFFICE.

FRANCIS C. McCASLIN, OF ZANESVILLE, OHIO.

GREENHOUSE-BENCH MOLD.

974,685.

Specification of Letters Patent.

Patented Nov. 1, 1910.

Application filed March 31, 1909. Serial No. 486,985.

To all whom it may concern:

Be it known that I, FRANCIS C. McCASLIN, a citizen of the United States, residing at Zanesville, in the county of Muskingum, State of Ohio, have invented certain new and useful Improvements in Greenhouse-Bench Molds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to improvements in molds for concrete benches, and particularly for benches designed for greenhouse use, and it has for its general object the production of an extremely simple and inexpensive mold made up, as a whole, of a plurality of independent sections for separately casting the various members of a bench of that character.

More especially, however, the invention comprehends the production of a bench mold of the type specified in which each section thereof includes one or more spacing blocks, the employment of which enables castings of various sizes to be made. In the particular construction and arrangement of the spacing blocks with reference to each other and to the other parts of the mold sections in which they are used, the invention primarily resides, although it also resides to a material extent in the particular construction of the clamps which retain the said blocks in place.

The invention further resides in the provision of means for forming recesses in the side edges of the bases of the castings, which recesses mate with each other when the castings are set up and unite in forming drain openings.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein,

Figure 1 is a perspective view of a completed bench whose various members are cast in the sections of the improved mold. Fig. 2 is a perspective view of the section in which the corner members are cast. Fig. 3 is a similar view of the section in which the body member, or members, is cast. Figs. 4 and 5 are similar views of the sections for forming portions of the sides and ends, respectively, of the bench, Fig. 4 having a part thereof broken away. Fig. 6 is an inverted perspective view of the mold for forming the channeled supporting members. Fig. 7 is a longitudinal vertical sectional

view of Fig. 6. Fig. 8 is a similar view of the mold for forming the legs of the bench. Fig. 9 is a section on line 9—9 of Fig. 4.

Reference being had to said drawings, and to the designating characters marked thereon, A indicates the section in which are cast the four corner members A' of the bench shown in Fig. 1; B, in like manner, that in which the end members B' are cast; C, that for casting the sides C'; D, that for casting the center or body members D'; E, that for casting the channeled supporting members E'; and F, that for casting the legs F'.

The mold form A comprises, as shown in Fig. 2, two main beams or sides 1 held in spaced parallel relation to each other by means of a pair of similar spacing blocks 2, the various parts being clamped together by a pair of headed bolts 3, each of which is provided with a wing nut 4. These bolts fit in transverse recesses 5 formed in the upper faces of the beams. The inner side face of the right hand beam 1 has secured thereto at equal distances apart a series of vertically arranged cleats 6, which are triangular in cross section. These cleats are utilized for the purpose of forming the several recesses in the bases of the castings, the recesses mating with each other when the bench is set up, and thus uniting to form the drain openings O.

The completed bench is provided at its edges as shown, with a continuous vertical wall W, each of the several castings which go to make up the body of the bench with the exception of the castings D' being formed with a portion of said wall. This wall is formed between pairs of plates, as herein-after described. In the section A under consideration, these two plates are L-shaped and are designated by the numerals 7 and 8. Said plates are arranged in spaced parallel relation to each other and are held in such position by spacing blocks 9 positioned between the mutually-adjacent ends thereof. The outer or larger plate 7 is rigidly secured in any preferred manner to the inner side face of the left hand beam 1, while the inner or smaller plate 8 is completely separable from the first mentioned plate and is connected therewith by U-shaped spring clips 10, which straddle the two ends of the plates and the interposed blocks 9. Thus it will be seen that by making use of spacing blocks having a greater or less length than that of the blocks 2 shown, the width of the

casting may be varied while its length may be regulated by moving said blocks toward or from each other. In like manner, the thickness of that portion of the wall W formed between the plates 7 and 8 may be regulated by employing spacing blocks 9 of different widths. In casting the bench member the mold section is placed upon a flat baseboard, and then filled with cement in a dry state, after which the cement is tamped in any desired manner.

In the section B shown in Fig. 5, the wall portion is formed between a pair of plates 11 and 12 located at one end of said section, said plates being maintained the requisite distance apart from each other by interposed spacing blocks and held against displacement by clips. Otherwise, the construction of this section is the same as that of the section A already described, for which reason further description is omitted, corresponding parts in these two and the subsequently mentioned sections being designated by the same reference characters. Both beams 1 of section B, however, are provided with cleats 6, and the two plates 11 and 12 are arranged transversely of said section, the outer plate 11 being secured to the adjacent spacer 2.

In the side forming section C, shown in Fig. 4, the plates 13 and 14 between which the wall portion is formed, are located longitudinally thereof, the outer plate 13 being secured to the inner side face of the left hand beam 1.

The mold section D shown in Fig. 3, in which the center members D' of the bench are cast, does not include a wall forming portion, and hence merely comprises the two side beams 1 and spacing blocks 2, and the bolts 3 and nuts 4 by which these parts are clamped together.

The various corner, side, and end members, and the body members D' are supported by a series of transversely arranged members E' each of which has formed in its upper face a channel G extending from end to end thereof and having a gradually increasing depth from its left to its right hand end. These members are cast in the mold sections E shown in Fig. 6, where in 16—16 indicate the two sides, 17—17 the two ends, and 18 the channel forming bar. The last mentioned element which is wedge shaped in cross section has its top face flush with the top edges of the sides, and is supported in spaced parallel relation to the sides by means of a pair of pins 19, which fit in openings formed in the ends 17 and have their stems extending into openings formed in the ends of the bar, as shown in Fig. 7, said bar increasing slightly in height from its left to its right hand end. The sides and ends of the section E are connected together by means of latches 20 pivoted to said sides and arranged for engagement in keepers 21 se-

cured to said ends and further, by means of screws 22 whose stems extend through openings in the ends and into registering openings in the sides. The length of the castings formed in this section may be regulated by means of a sliding spacer 23 which fits between the sides 16 and is formed with a recess whose shape corresponds with that of the cross sectional shape of the bar. This spacer may be moved toward either end piece 17, as will be apparent.

The castings E' above described, are designed to rest upon the tops of the legs F', which latter are formed in the section F shown in Fig. 8. This section consists of a base portion comprising two oppositely disposed L-shaped beams 24 and 25 hinged together at one end, as indicated by the numeral 26, and arranged for separable connection at the other end by means of a hook 27 and keeper 28. The vertical portion of each leg is formed between a pair of parallel plates 29 held in spaced relation by blocks 30 secured to the base blocks, the plates being clamped against the spacing blocks by spring clips 31, which are identical in construction with the clips 10 already described. The thickness of said vertical portions may be regulated at will by using spacing blocks of different widths.

The bench itself forms no part of this case, but will be made the subject of a separate application to be filed hereinafter. Hence no extended description of the bench is necessary.

What is claimed, is:—

1. In a greenhouse bench mold, a section comprising in combination a pair of parallel side beams, spacing blocks interposed between the ends of said beams, means for clamping said beams and blocks together, and a wall forming device including a pair of spaced members, one of which is disposed between and above and the other upon said spacing blocks, separate spacing blocks interposed between the ends of said members, means for clamping said members and blocks together, said means consisting of U-shaped spring clips arranged to straddle the ends of said plates and interposed blocks.

2. In a greenhouse bench mold, a section comprising, in combination, a pair of parallel side beams, spacing blocks interposed between the ends of said beams; means for clamping said beams and blocks together; and a wall forming device connected to said section and including a pair of spaced L-shaped plates having the major portions thereof arranged parallel with said beams, and the minor portions at right angles to the same, the major portion of one of said plates being rigidly secured to the adjacent beam; blocks interposed between the ends of said plates; and means for clamping said plates and last mentioned blocks together.

3. In a greenhouse bench mold, a section comprising in combination a pair of parallel side beams, spacing blocks between the ends thereof in a common plane therewith, and
5 clamping means securing said beams and blocks together, and a wall forming device comprising a pair of side plates, spacing blocks between the ends thereof and clamping means securing said plates and spacing
10 blocks together, one of the plates of said wall forming device being of a width exceeding the width of the side beams of the first named section, and being provided in its lower corners with angular recesses to re-
15 ceive the spacing blocks thereof, so that the lower edge of said plate lies in the same plane with the lower side of said section and

the upper edge of said plate is above the plane of the upper side of said section, the other plate of said wall forming device be- 20
ing narrower than the first named plate, and having its lower edge in the plane of the upper side of said section and its upper edge in the plane of that of the first-named plate, the said spacing blocks of the said wall 25
forming device bearing on those of the said sections.

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

FRANCIS C. McCASLIN.

Witnesses:

IRVING A. WILFORE,
C. S. MOORE.