

No. 699,625.

Patented May 6, 1902.

C. F. LANCASTER.
MOLD FOR CONCRETE STRUCTURES.

(Application filed Nov. 14, 1901.)

(No Model.)

3 Sheets—Sheet 1.

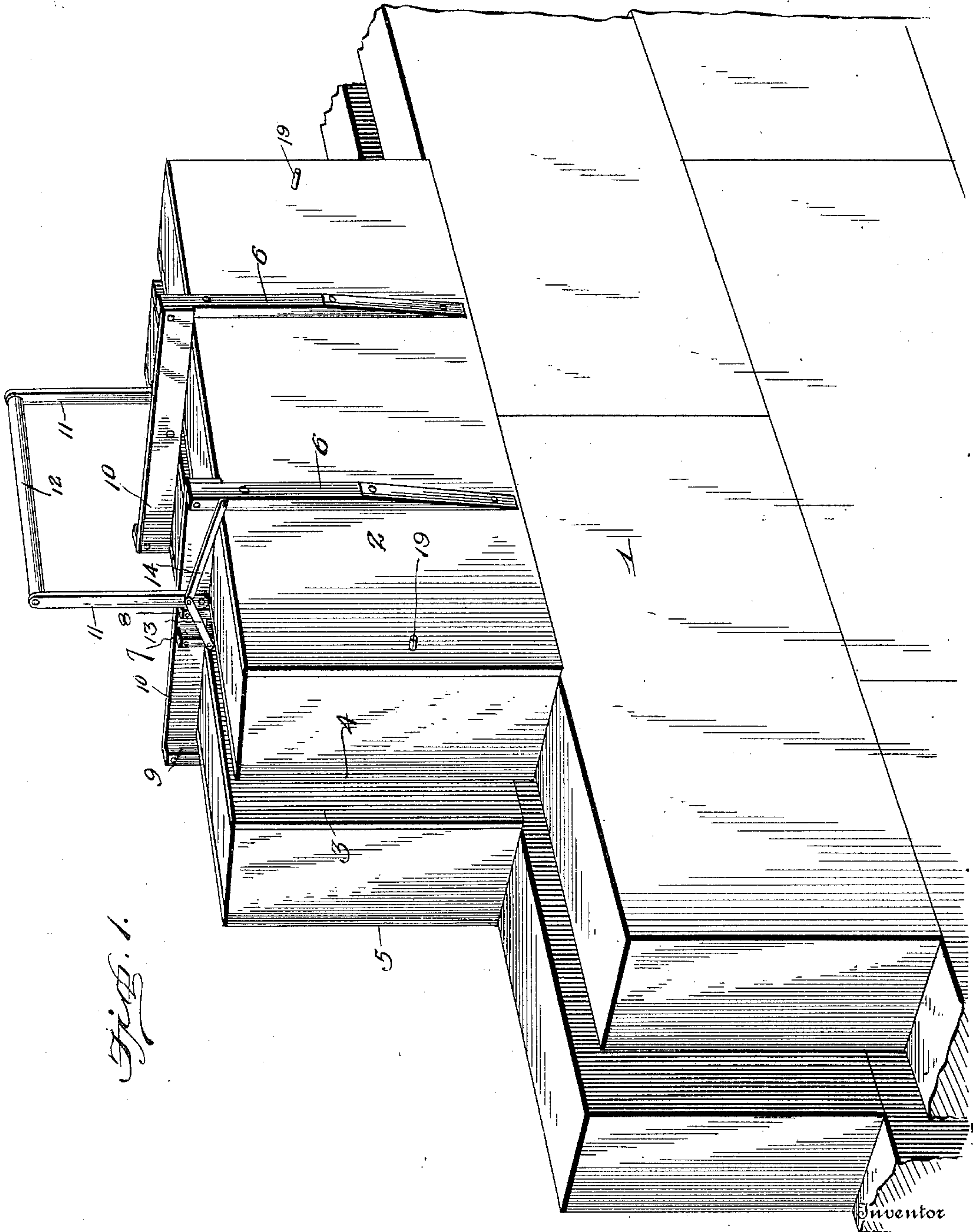


Fig. 1.

Witnesses

E. Hunt
J. Wilson

By

C. F. Lancaster
A. B. Wilson & Co.

Attorneys

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Fig. 2.

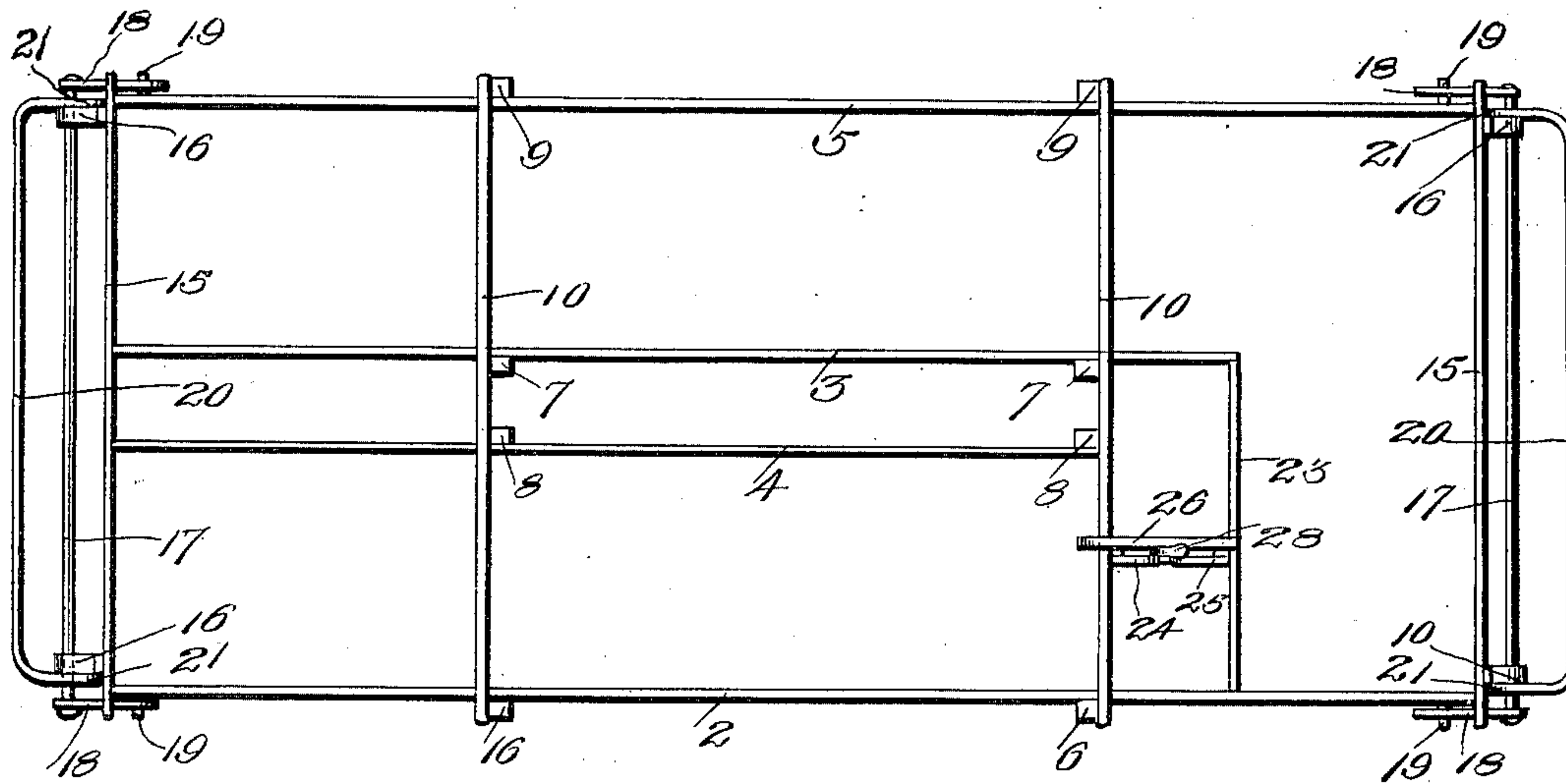
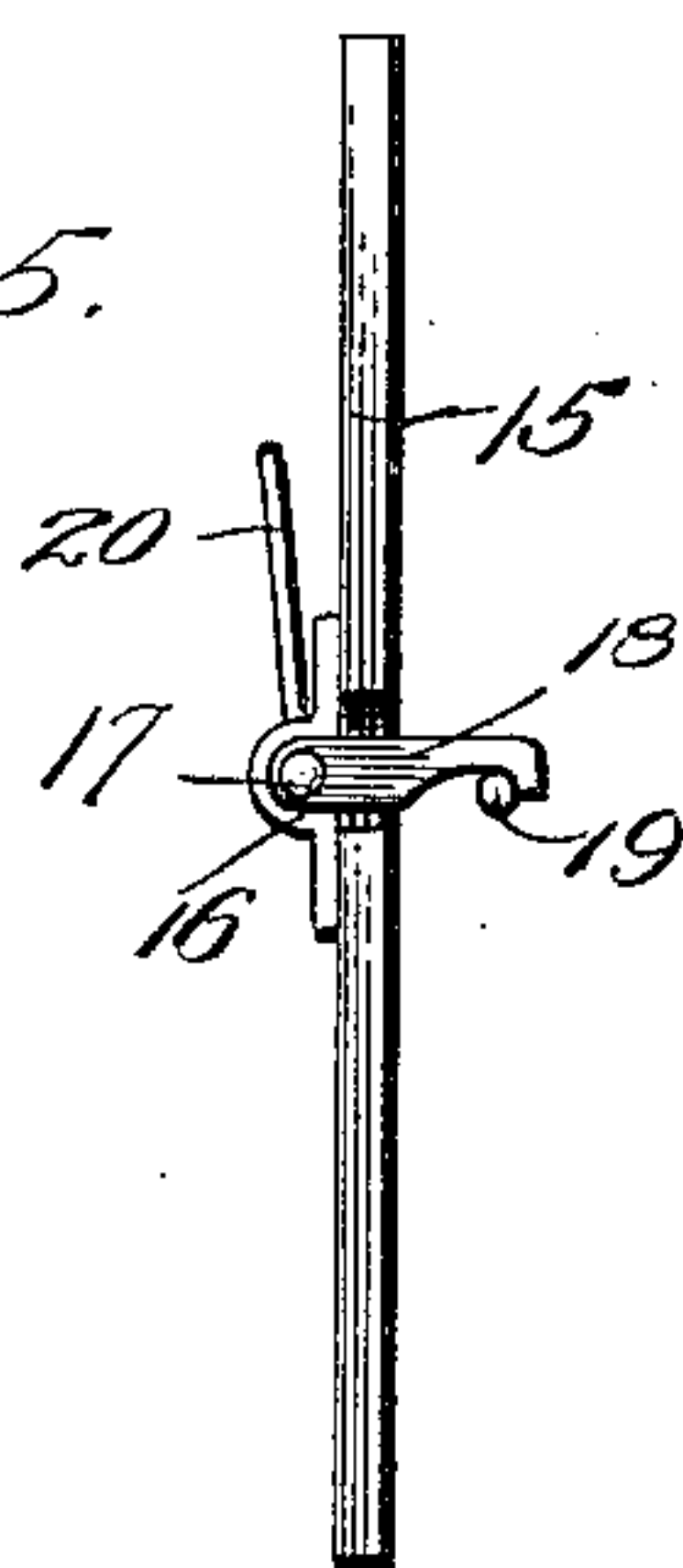


Fig. 5.



Inventor

C. F. Lancaster

Witnesses

E. C. Hunt
J. H. Wilson

By

A. B. Wilson & Co.
Attorneys

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3 Sheets—Sheet 3.

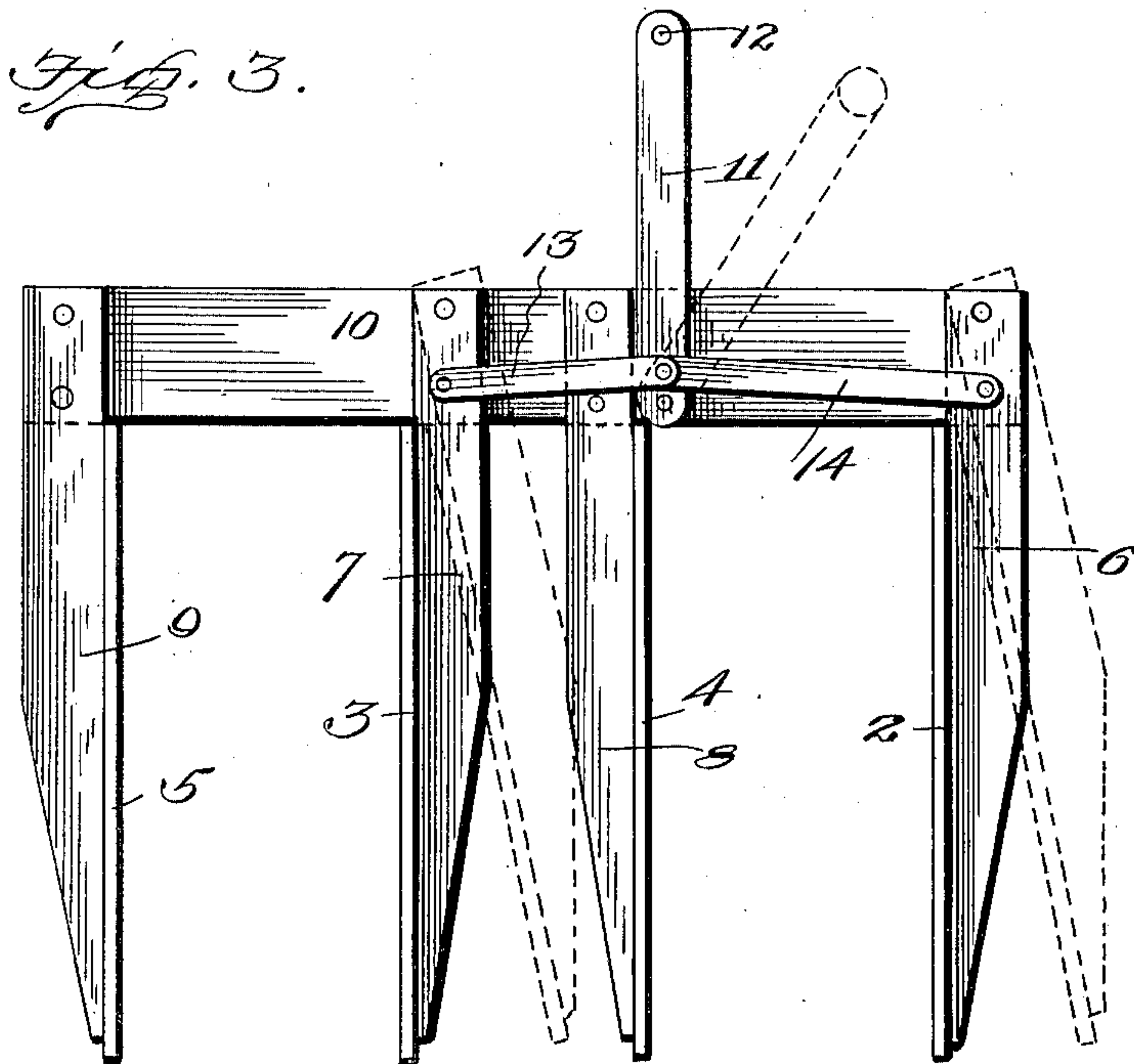
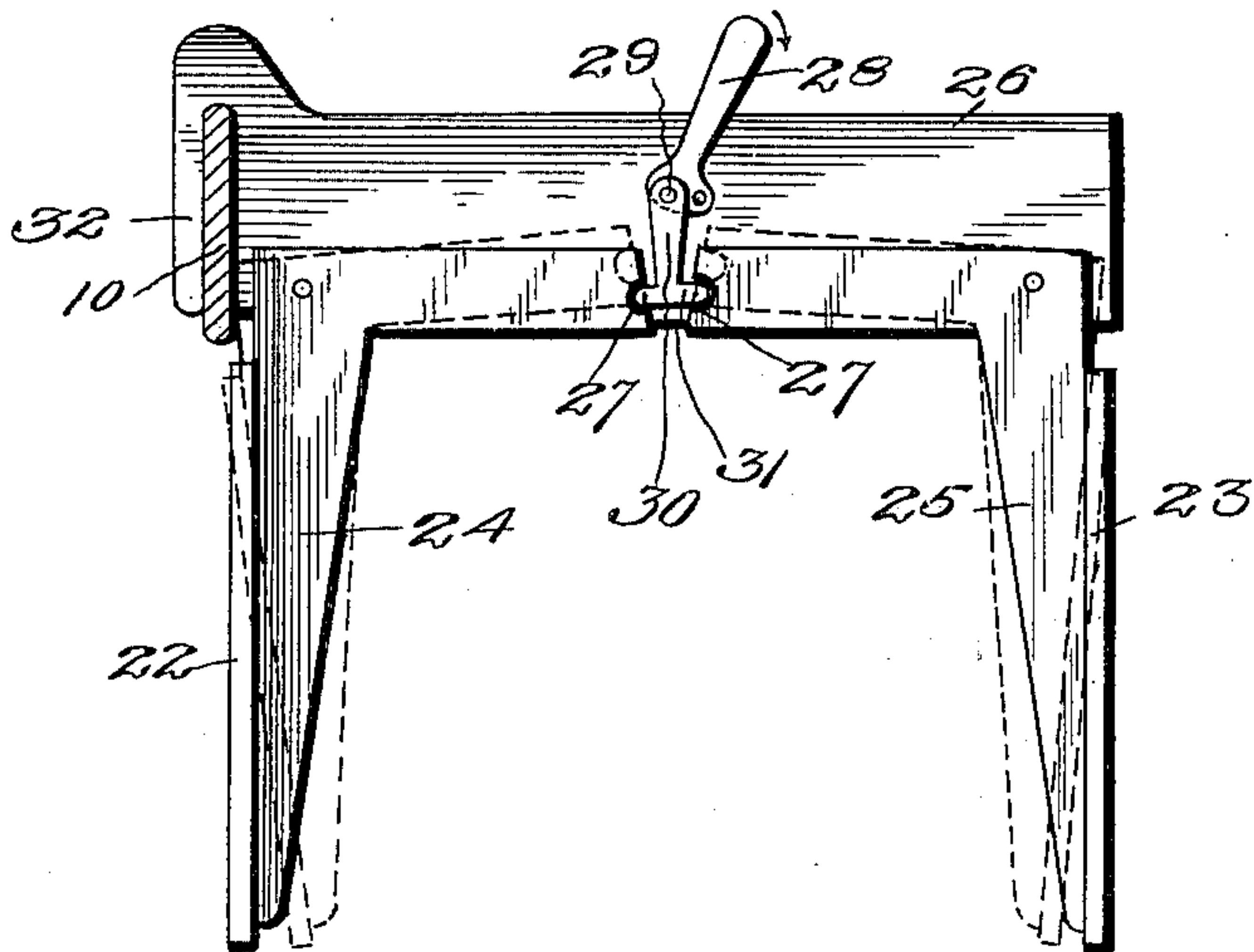


Fig. 4.



Inventor

C. F. Lancaster

Witnesses

C. F. Hunt
J. E. Wilson

By

A. B. Wilson & Co

Attorneys

UNITED STATES PATENT OFFICE.

CHARLES F. LANCASTER, OF PETOSKEY, MICHIGAN, ASSIGNOR OF ONE-HALF TO FRED D. DAVIS, OF PETOSKEY, MICHIGAN.

MOLD FOR CONCRETE STRUCTURES.

SPECIFICATION forming part of Letters Patent No. 699,625, dated May 6, 1902.

Application filed November 14, 1901. Serial No. 82,279. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. LANCASTER, a citizen of the United States, residing at Petoskey, in the county of Emmet and State of Michigan, have invented certain new and useful Improvements in Molds for Concrete Structures; and I do 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 invention relates to molds for concrete structures.

In building walls and other structures of concrete the material is confined and kept in form by the mold until set.

The object of my invention is to provide a mold for this purpose which shall be simple of construction, durable in use, comparatively inexpensive of production, and capable of being removed at intervals as the structure advances and being again employed for continuing the work.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view illustrating the application of my invention. Fig. 2 is a top plan view showing the corner and end sections of the mold in position. Fig. 3 is an end view of the side pieces of the mold, showing the manner of operating the same. Fig. 4 is an end view of the corner-sections of the mold, illustrating the manner of operating the same; and Fig. 5 is an end view of one of the end pieces of the mold.

Referring to the drawings, 1 represents a wall of a building in the course of construction, said wall being provided with an intervening air-space. The mold for forming a wall of this construction consists of the outer side pieces 2 and 3 and the inner side pieces 4 and 5 of proper length and height. To the side pieces 2 and 3 are fixed posts or standards 6 and 7, respectively, and to the side pieces 4 and 5 are fixed posts or standards 8 and 9, respectively. The upper ends of the

posts or standards 8 and 9 are fixed to a cross-bar 10, and the upper ends of the posts 6 and 7 are pivoted to said cross-bar. As shown in Fig. 1, these posts are illustrated in duplicate or are in two sets, each set being similarly connected to its cross-bar. 11 denotes levers pivoted at their lower ends to said cross-bar, and 12 denotes a handle connecting the upper ends of said levers.

13 denotes links pivoted to the posts 7 and to the levers 11, and 14 denotes similar links pivoted to the posts 6 and to the levers 11.

This completes the description of the parts forming that part of the model to be used for building the side walls of a concrete structure, and the operation is as follows: In the position illustrated in full lines in Fig. 3 the sides of the mold are shown in position to receive the plastic mass to form the structure. This mass is filled in between the sides 2 and 4 and 3 and 5, and after it has remained a suitable period and becomes sufficiently set the levers 11 are rocked to the position shown in dotted lines in Fig. 3, which frees the side pieces from the two sections constituting the wall and permits of the mold-sections being moved longitudinally to form a continuation of the wall in that direction or moved vertically, as the case may be, and in either be clamped to the set sections of the wall in position to receive a fresh charge of plastic composition.

15 denotes the end piece of the mold, which in height corresponds to the height of the side pieces and in length sufficient to reach across from the ends of the side pieces 2 and 5 and is provided with lugs 16, in which is loosely journaled a shaft 17, to the end of which are loosely secured hooks 18, which are adapted to engage lugs 19, projecting from the ends of the side pieces 2 and 5. A bail-shaped lever 20 is journaled upon the rod 17 and is provided with heads 21, which are adapted to engage the end piece of the mold and when pressed downward force said end piece firmly against the ends of the mold-sections 2, 3, 4, and 5 and lock said end piece in proper position, the bearings 16 permitting of a sliding movement of the shaft 17 therein.

In molding a corner the side pieces 3 and 4 of the mold are shortened, the side pieces

4 being slightly shorter than the side piece 3, as shown in Fig. 2. The corner-mold consists of mold-boards 22 and 23, secured to angular posts or standards 24 and 25, which are
 5 pivoted to a cross-bar 26 and have their inner horizontal projecting ends extending close toward each other, as shown more clearly in Fig. 4. The adjacent ends of these horizontal extensions are provided with recesses 27
 10 for a purpose hereinafter to appear.

28 denotes a lever pivoted to the cross-bar 26 and provided with a crank-pin 29, and 30 denotes a bar having a laterally-extending head 31, which projects downwardly and be-
 15 tween the horizontal ends of the standards and into the recesses 27. By rocking this lever 28 it is evident that the boards or side pieces 22 and 23 of the mold will be moved from the position shown in full lines to the
 20 position shown in dotted lines, whereby it may be freed from the wall of the structure when said wall is set. The cross-piece 26 is provided at one end with a hook or other fastening means 32, which is adapted to hook
 25 over the cross-piece 10 of the mold, as shown in Fig. 2, in placing the corner-mold in position to receive its charge of material.

From the foregoing description, taken in connection with the accompanying drawings,
 30 the construction, mode of operation, and advantages of my invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and details of construction may be made with-
 35 in the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof. For instance, instead of using four sides to form two spaced-apart
 40 wall-sections I may employ but two sides, in which event but one wall-section will be formed.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a mold for concrete work, the combination with the side pieces, a cross-bar and posts or standards secured to the side pieces, one fixedly connected at its upper end to the cross-bar and the other pivotally connected
 45 to said cross-bar, of means for moving one side piece toward and away from the other, said means comprising a lever pivoted to the cross-bar and a link connected to the movable side piece, substantially as set forth. 55

2. In a mold for concrete work, the combination with an inner set of side pieces and an outer set of side pieces, posts or standards secured to said sets of side pieces, cross-bars to which the upper ends of the posts of one set
 60 of side pieces are fixed and the upper ends of the posts of the other set of side pieces are pivoted, of levers pivoted to said cross-bars and links pivoted to said levers and to the movable sets of side pieces, substantially as
 65 set forth.

3. In a mold for concrete work, the combination with an inner set of side pieces and an outer set of side pieces, posts or standards secured to said sets of side pieces, cross-bars
 70 to which the upper ends of the posts of one set of side pieces are fixed and the upper ends of the posts of the other set of side pieces are pivoted, of levers pivoted to said cross-bars, links pivoted to said levers and to the
 75 movable sets of side pieces, and a handle connecting said levers, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES F. LANCASTER.

Witnesses:

SAMUEL R. TUCKER,
 FRED R. MING.