

C. H. F. DYHRKOPP.

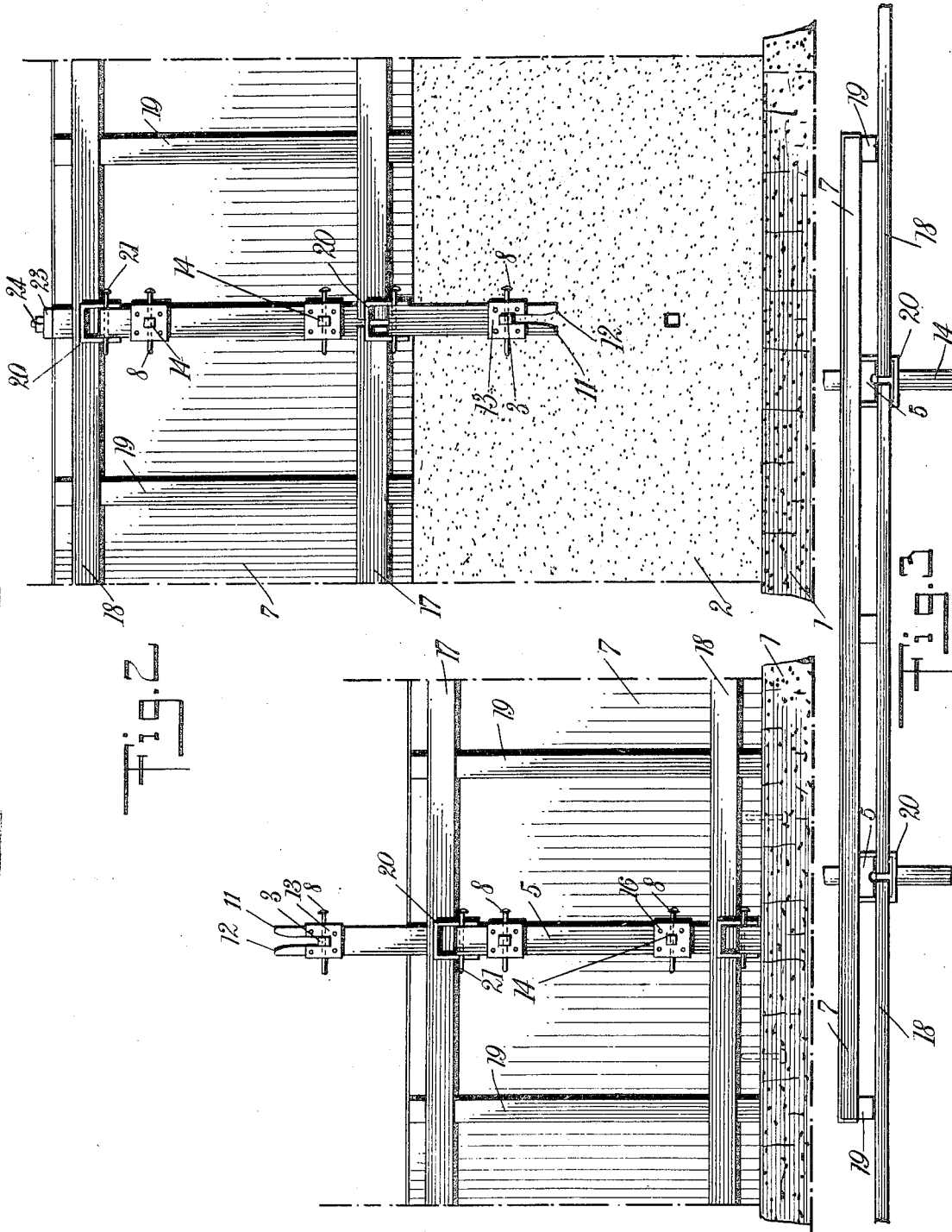
CONCRETE MOLD.

APPLICATION FILED JULY 11, 1911.

Patented Aug. 20, 1912.

2 SHEETS—SHEET 1.

1,036,468.



WITNESSES

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Fig. 1

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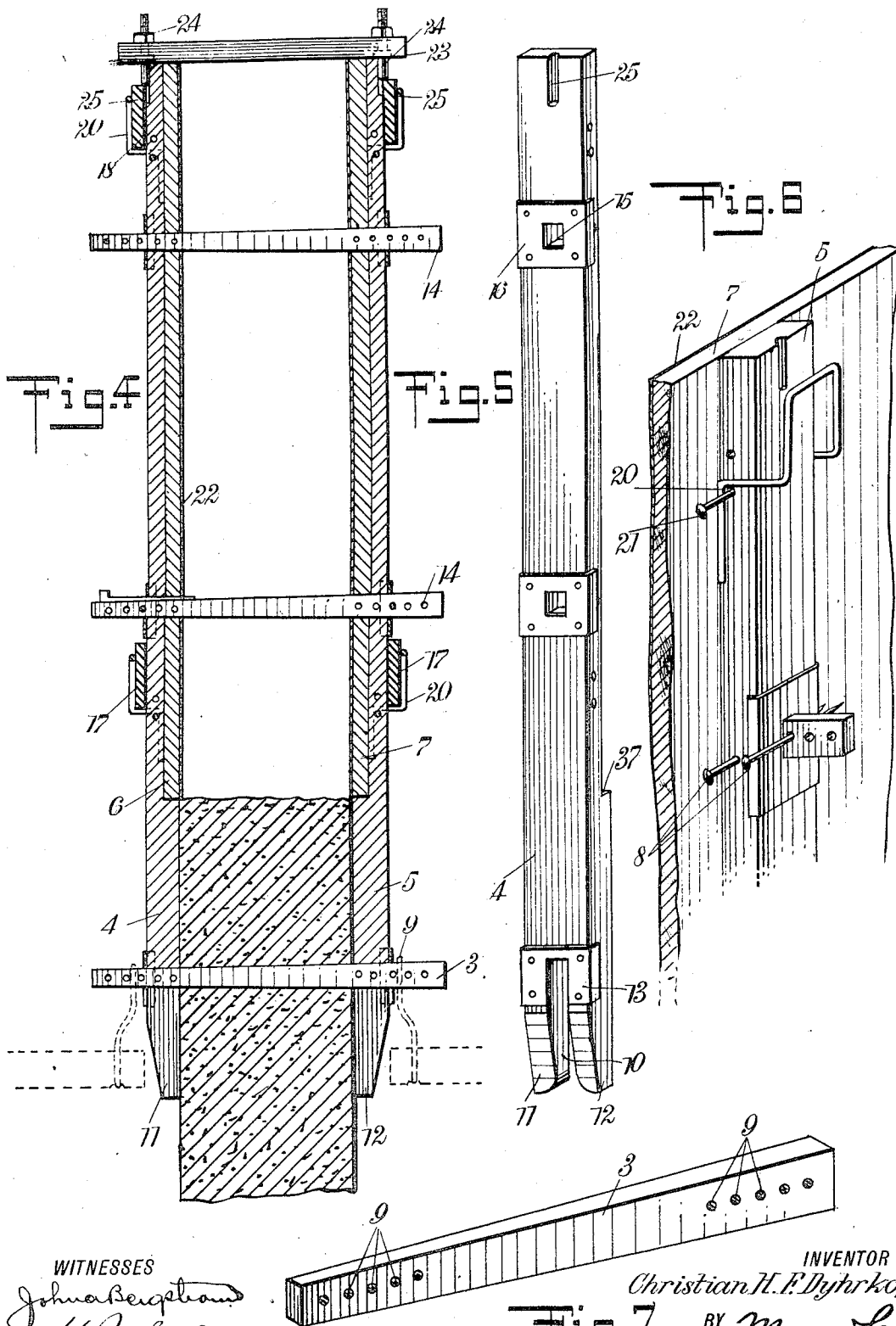
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WITNESSES

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UNITED STATES PATENT OFFICE.

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CONCRETE-MOLD.

1,036,468.

Specification of Letters Patent.

Patented Aug. 20, 1912.

Application filed July 11, 1911. Serial No. 637,884.

To all whom it may concern:

Be it known that I, CHRISTIAN H. F. DYHRKOPP, a citizen of the United States, and a resident of Spencer, in the county of Clay and State of Iowa, have invented a new and Improved Concrete-Mold, of which the following is a full, clear, and exact description.

This invention relates to a new and improved mold for forming concrete, cement or other like walls of plastic material.

An object of this invention is to provide a mold having upright posts for supporting the mold boards, secured together by ties which are tapering, so that they can be readily knocked out without disturbing the material of which the wall is formed, and further, so that they can be replaced in the openings thus formed readily without jamming.

A further object of this invention is to provide a mold for making walls of concrete, cement or the like, which will be simple in construction, inexpensive to manufacture, strong, durable, and readily set up in place and easily detached and taken down.

These and further objects, together with the construction and combination of parts, will be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a side view in elevation, showing the arrangement for the first tier of the wall; Fig. 2 is a view similar to Fig. 1, showing the arrangement for the upper tiers; Fig. 3 is a fragmentary top plan view; Fig. 4 is a vertical transverse section; Fig. 5 is a detached perspective view of one of the uprights or posts; Fig. 6 is a fragmentary perspective view; and Fig. 7 is a detached perspective view of one of the ties.

Referring more particularly to the separate parts of this invention as embodied in the form shown in the drawings, 1 indicates the base wall, formed of concrete or the like, which is utilized to form a support for the mold in building the first tier.

2 indicates one of the lower tiers, which is likewise utilized to form a support for the mold, in building the upper tiers of the side walls. In the latter case, there has been previously provided an opening through the

concrete, in which extends a tie rod 3. A particular thing to be noted about this tie rod is that it tapers on its sides and top so as to be somewhat wedge-shaped, whereby it can be readily removed from the concrete before the latter has completely hardened, by tapping on the narrow end of the tie and forcing it out through the wedge-shaped opening thus provided. This tie is used to secure at the bottom two parallelly-disposed posts 4 and 5, arranged in spaced relation from each other, corresponding to the thickness of the wall desired, and forming uprights to support the mold boards 6 and 7 of the mold, the posts being rabbeted at 37 for this purpose. Of course, it is to be understood that the number of ties 3 and upright posts 4 and 5 may be more than one, and may be arranged at suitable spaced intervals, according to the length of wall it is desired to construct at a single operation. It is desirable that the ties 3 should be of sufficient linear magnitude to project on both sides beyond the exposed surfaces of the posts 4 and 5, so that these posts can be secured to the ties and to each other by pins or spikes 8 passing through any one of a plurality of apertures 9 in the ties 3, and either face the outer side of the posts 4 and 5, or else pass through suitable apertures provided therein. It will be noted by reference to Fig. 4 that the ties 3 may provide suitable supports for scaffolding, indicated in dotted lines, whereby the material to be placed between the mold boards, and also the workmen, if desired, can be supported in juxtaposition to the mold.

It will be noted by reference to Figs. 1, 2, and 5, that the bottom end of each post is bifurcated by a slot 10, so as to form two forks 11 and 12, which are adapted to extend on opposite sides of the tie 3, and can be inserted thereon from above. Suitable bearing plates 13 may be provided on the face of the posts, against which the pins 8 may rest. One of the plates 13 forms a reinforcement for the bifurcation of the post, to prevent its splitting as clearly shown in Fig. 5.

In addition to the ties 3 arranged at the bottom of the post, there may be provided other ties 14, arranged at suitable spaced intervals from each other and from the ties 3, which are similar in form and act to hold the upper portions of the posts together. To permit these ties to pass through these

posts and through the mold boards, suitable openings, indicated at 15, are provided, and the posts may be reinforced by facing plates 16 at the location of these openings, as mentioned in connection with the bifurcated portions of the posts. In order to hold the posts in alinement, there may be provided a plurality of longitudinally-extending bars 17 and 18, extending in back of the mold boards 6 and 7 and engaging ribs 19 provided thereon. These bars 17 and 18 are supported on the posts 4 and 5 by means of suitable hangers 20, which in this instance are shown in the form of U-shaped members, bent, with an intermediate portion extending at right-angles to two portions arranged in parallel spaced relation with respect to each other, so as to form a step, the legs of which may extend over suitable pins or spikes 21 passing through openings provided in the posts 4 and 5 at vertically-spaced intervals.

The mold boards 6 and 7 may be provided with a facing sheet 22 of any suitable material, such as sheet-metal, which will give the desired finish to the surface of the wall.

In addition to the ties mentioned, the top edges of the mold may be secured together by braces 23, provided with adjustable screw pins 24, which engage in sockets 25 provided at the upper ends of the posts 4 and 5.

It will thus be seen that there is provided a simple and inexpensive mold, which can be readily set up in place, either at the base to form a first tier of the wall, or upon one of the previously-formed tiers to form an upper tier, which will be simple in construction, readily accessible, and easily detached and taken down after the section of the wall has been completed.

While I have shown one embodiment of my invention, I do not wish to be limited to the specific details thereof, but desire to

be protected in various changes, alterations and modifications which may come within the scope of the appended claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. The combination with spaced posts, of ties for securing said posts together, said posts being bifurcated at their lower ends to engage said ties, pins passing through said ties, for securing said posts from movement relative to each other, mold boards supported on said posts, hangers supported on said posts, ribs on said mold boards, longitudinally-extending bars supported by said hangers and engaging said ribs to support said mold boards, a brace for securing the tops of said posts together, said tops of said posts having sockets extending longitudinally in the outer faces of the posts, and pins on said brace engaging said sockets.

2. A mold comprising spaced posts, a tie for securing said posts together, mold boards supported on the posts, said posts being provided with series of transverse openings arranged to extend parallel with the mold boards, supporting members adapted to be extended through selected ones of said openings, U-shaped hangers formed of wire and having their extensions provided with offset portions adapted to engage the selectively positioned supporting members, and longitudinal bars disposed within, and supported by, said hangers, said bars bearing against portions of said mold boards between the posts.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHRISTIAN H. F. DYHRKOPP.

Witnesses:

J. A. MILLER,
J. E. STEELE.