No. 849,760. PATENTED APR. 9, 1907.

W. E. VARNEY.

MOLD FOR CEMENT POSTS.

APPLICATION FILED SEPT. 5, 1906.

2 SHEETS—SHEET 1.

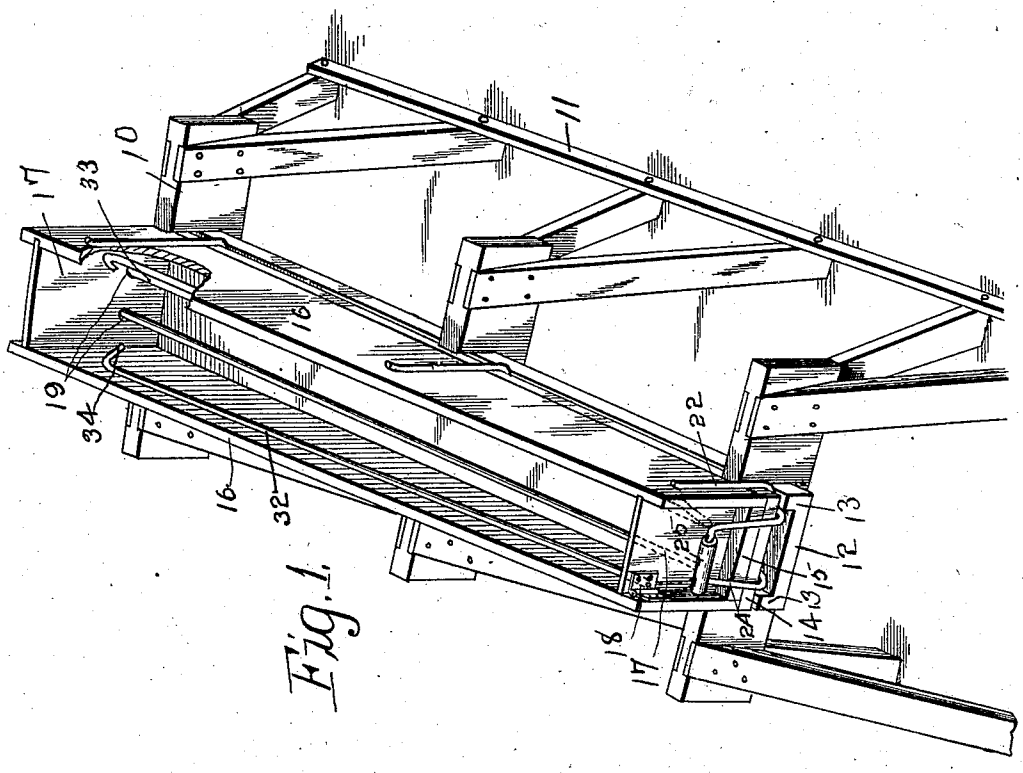

Fig. 1.

Witnesses.
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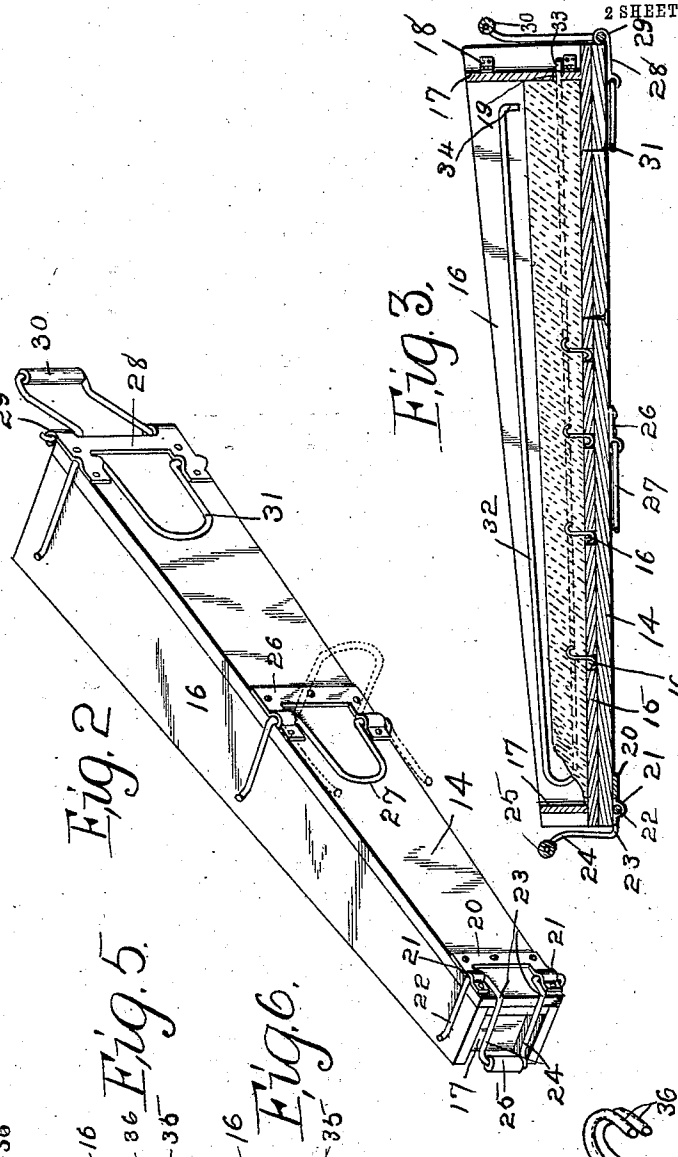

Fig. 3.

Fig. 2.

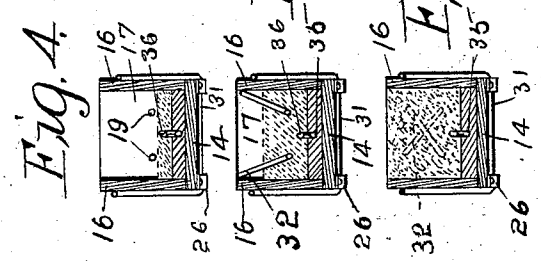

Fig. 4.

Fig. 5.

Fig. 6.

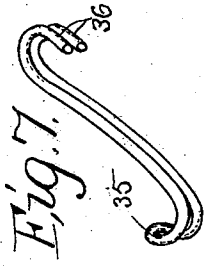

Fig. 7.

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UNITED STATES PATENT OFFICE.

WILLIAM E. VARNEY, OF WELLMAN, IOWA.

MOLD FOR CEMENT POSTS.

No. 849,760. Specification of Letters Patent. Patented April 9, 1907.

Application filed September 5, 1906. Serial No. 333,726.

To all whom it may concern:

Be it known that I, WILLIAM E. VARNEY, a citizen of the United States, residing at Wellman, in the county of Washington and State of Iowa, have invented a certain new and useful Mold for Cement Posts, of which the following is a specification.

The object of my invention is to provide a mold of this class of simple, durable, and inexpensive construction so arranged that strengthening or reinforcing wires or rods may be conveniently and easily placed in the posts during their formation in such manner as to furnish a maximum of strength and so arranged that the said wires will not interfere with the placing of material in the mold or with tamping it therein and also so arranged that the operation of tamping the material in the molds will not be interfered with by the reinforcing wires or rods and the said wires in turn will not be displaced by such tamping.

A further object is to provide a mold of this kind in which the mold, with the completed post, may be conveniently handled and carried by the operator and the finished post quickly and easily removed from the mold.

A further object is to provide a mold which may be quickly and easily assembled ready for use after a post has been removed therefrom.

A further object is to provide improved means for temporarily supporting wire-holding devices in the mold while the material is being placed therein.

A further object is to provide an improved method of placing reinforcing-rods in cement posts.

My invention consists in the construction, arrangement, and combination of the various parts of the mold whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of a complete mold embodying my invention. Fig. 2 shows a perspective view of the mold proper detached from its base to illustrate the arrangement of the devices for connecting the mold sides and ends with the bottom and also for carrying the mold. The dotted lines in said figure show the central one of these side-holding devices in position for permitting the removal of the sides. Fig. 3 shows a central longitudinal sectional view of the mold proper without the base and partially filled with post-making material. Fig. 4 shows a transverse sectional view through the mold proper, showing it partially filled before the insertion of reinforcing-wires. Fig. 5 shows a similar view with the reinforcing-wires in their first position and the mold approximately three-fourths full of material ready to permit the reinforcing-wires to be turned inwardly and downwardly to rest on top of said material. Fig. 6 shows a similar view with the post completed, the position of the reinforcing-wires being indicated by dotted lines; and Fig. 7 shows a detail perspective view of one of the wire-holding devices for the post.

Referring to the accompanying drawings, the base or support of the mold is composed of three trestles 10, connected by the longitudinal braces 11, attached to the legs of the trestles. Each trestle is provided with a central recess to receive a base-board 12, having upwardly-projected edges 13.

The mold proper is of a size and shape to fit into the recesses in the trestles and comprises a bottom board 14. On top of the bottom board 14 is a plate 15, having a series of openings 16 therein to receive fence-wire-supporting devices, as will hereinafter appear. The sides of the mold are indicated by the numeral 16 and are detachably placed on the bottom 14 to rest against the side edges of the plate 15. The mold ends are indicated by the numeral 17 and are hinged at 18 to swing outwardly. Their movement when the parts are assembled is restricted by means of the notches formed in the side 16 opposite from the side to which the said ends are hinged, as clearly shown in Fig. 1. In one of said ends 17 are two openings 19 for purposes hereinafter made clear.

I have provided for holding the sides together when being filled as follows: Near one end of the mold is a plate 20, secured to the base 14 and having loops 21 therein. A rod is mounted in said loops and comprises straight end portions 22 to normally stand parallel with the sides 16. Adjacent to the ends 22 the rods extend inwardly through the loops 21. After passing through the loops 21 said rod extends outwardly through the base 14 at the points marked 23 and then upwardly adjacent to the end of the mold at the points marked 24, and a handle 25 is placed on said rod. Obviously by grasping this

handle and moving the parts 24 of the rod downwardly toward the base the parts 22 will pass to position out of engagement with the sides 16. At the center of the mold is a plate 26, similar to the plate 20 and having a rod therein similar to the rod in the plate 20, except that the central portion of the rod consists of a single loop 27 to normally lie flat against the bottom of the mold, as clearly shown in Fig. 2. At the other end of the mold is a plate 28, similar to the plate 26, except that it is provided with loops 29 to receive a pivoted handle 30. The said plate 28 also has a rod therein (indicated by the numeral 31) similar to the rod in the central plate. In use with this portion of the device and assuming that all of the rods are in the position shown in Fig. 2, then the sides are firmly held in position by the end portions of said rods. If it is desired to bear off the mold, the operator may grasp the handles 25 and 30, and when it is desired to discharge the post the wire-holding devices may all be turned to the position shown by dotted lines in Fig. 2, so that the ends of the rods will stand clear of the sides of the mold. In the post-retaining wires or rods it is well known that in order to retain a maximum of strength with a minimum of material the wires or rods should each be formed of a single piece of material doubled at its central portion, with its ends substantially parallel and with one side placed adjacent to one corner of the post and its other side adjacent to the diametrically opposite corner. However, considerable difficulty has been experienced heretofore in so placing the rods, because when in such position they interfere very materially with placing material in the mold, and they prevent access to the interior of the mold for purposes of tamping. By means of my improved mold, however, this may be easily and quickly accomplished without interfering with filling the mold or with tamping the material, as follows: Two reinforcing-rods are provided for each post, each rod consisting of a single piece of material doubled at its central portion and comprising two sides 32 and 33, the side 32 having a right-angled end 33 and the side 33 having a straight end longer than the side 32. The straight ends 33 are extended through the openings 19 in the end 17, and the side 32 of both rods are placed in the position shown in Fig. 1, resting against the sides of the mold, so that the entire interior of the mold is so free from rods as to be readily accessible. Then at a proper stage of the mold-filling process the sides 33 are turned inwardly and downwardly to rest on top of the material in the mold, and when in this position the opposite sides of each rod will be at diametrically opposite sides of each post, and then the rest of the material may be placed in the mold and firmly tamped. The process by which I preferably carry out the filling of the mold is as follows: Referring to Fig. 4 of the drawings, I first place in the mold a quantity of material to fill the mold to about the level of the openings 19. This much of the material may then be tamped. I then place the reinforcing-rods in position with their ends 33 extending through the openings 19 and the sides resting against the sides of the mold. I then complete the filling of the mold until it is about three-fourths full, as shown in Fig. 5, when the material may be again tamped. I then turn the sides 32 of the rods inwardly until they rest on top of the material, and I then complete the filling and tamping of the mold.

The devices for supporting wires on the posts each comprise a single piece of flexible wire doubled at its central portion and having formed at its central portion a loop 35 and also having formed at its ends a loop 36, the said loop 35 being placed in the openings 16 of the plate 15 and the loops 36 projecting in the interior of the mold. When the mold is filled and the post completed, the loops 36 will firmly hold in the post, while the loops 16 will project from the post and furnish a support for fence-wires. By having said supports made of flexible wire they may be bent and fitted to the fence-wires to firmly hold them.

In practical use the board 12 on the trestles serves as a support for the mold, and the trestles hold this board supported in such position that an operator may conveniently and easily fill and tamp the material in the mold. The mold is preferably filled in the manner hereinbefore described, and the reinforcing-rods placed in position, as shown. After the post is thus completed the operator grasps the handles and bodily removes the mold proper and the post. Then the rods that hold the sides 16 of the mold are turned to position adjacent to the bottom of the mold, and when one side is removed the ends may freely swing outwardly from their edges, so that the other side may be detached from the post, and then the parts are reassembled and returned to the supporting-base.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In a cement-post mold, the combination of a base, sides pivotally connected with the base and a holding device for the sides, comprising a plate fixed to the base, a rod pivoted in the plate with its end portions normally standing against the sides and its central portion formed with a loop normally lying flat against the base and extended upwardly at the end of the mold and spaced from said end to form a handle, said handle when turned to position projecting below the base throwing the ends of the rod to position below the sides.

2. The method of making a reinforced cement post, which consists in first providing a mold, then providing a reinforcing-rod doubled at its central portion with its sides approximately parallel, then pivotally connecting one of said sides at one end to the mold, then partially filling the mold and covering one side of the rod, then turning the rod to position with its other side resting on top of the material and then completing the filling of the mold.

3. The method of making reinforced cement posts, which consists in first providing a mold, then providing two reinforcing-rods, each doubled at its central portion and having approximately parallel sides, then pivotally connecting one side of each reinforcing-rod to one end of the mold with the other side of the same rod resting against the adjacent side of the mold, then partially filling the mold and then turning both of said rods to position with their remaining sides resting on top of the material and then completing the filling of the mold.

4. The method of making a reinforced cement post, which consists in first providing a mold, then placing a layer of material in the mold, then providing two reinforcing-rods, each made of a single piece of material doubled at its central portion and having approximately parallel sides, then placing one side of each rod on top of the material and pivotally connecting the end of said side with the adjacent end of the mold, then filling the other layer of material, then turning both rods downwardly and inwardly in the mold to rest on top of the material and then completing the filling.

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Witnesses:
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