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MOLD FOR CONCRETE POSTS AND THE LIKE

Filed Feb. 24, 1925

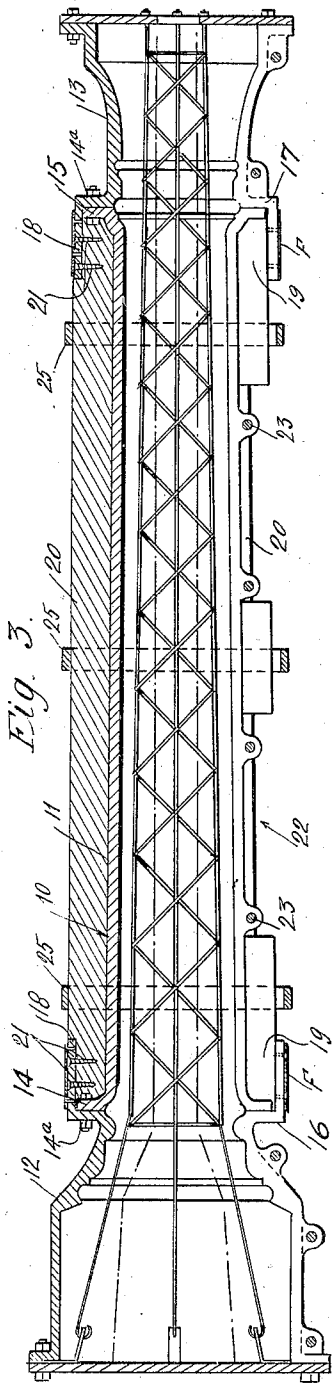


Fig. 3.

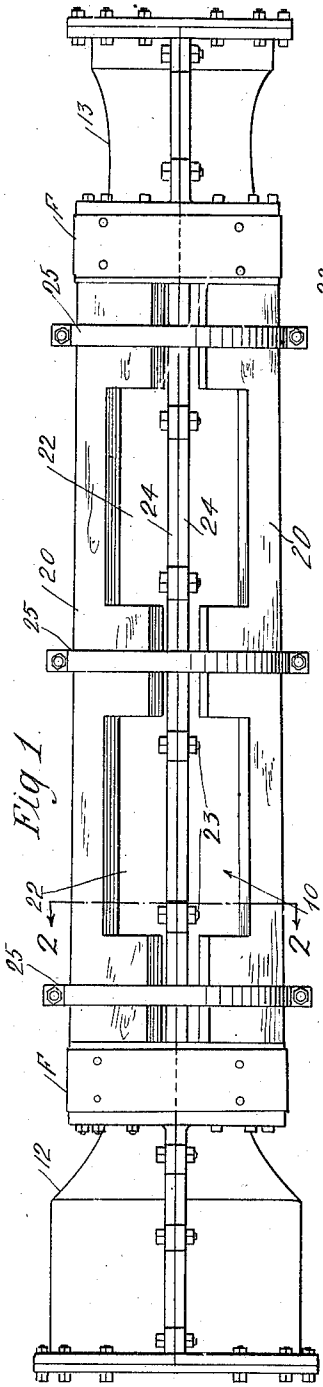


Fig. 1.

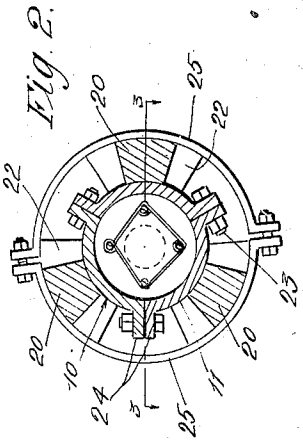


Fig. 2.

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UNITED STATES PATENT OFFICE.

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MOLD FOR CONCRETE POSTS AND THE LIKE.

Application filed February 24, 1925. Serial No. 11,052.

This invention relates generally to molds and more particularly to metal molds used in forming concrete light posts and the like by the centrifugal method.

In order to stand up under the severe service conditions incident to this method of molding concrete, and also in order that the working faces of the molds may long retain their original configuration in spite of the abrasive action of the concrete during repeated molding operations, it is found highly desirable to use cast iron molds, the working faces of which are tool finished. The molds are often of great weight and must frequently be handled by block and tackle. After being filled with concrete they are grasped at each end by the chucks of a centrifuge and revolved at very high speed. The vibrations set up in the mold during operation of the centrifuge tend to crystallize the metal with consequent danger of failure.

Therefore, I have provided metal molds with wooden sheathing which not only protects them while being handled prior and subsequent to their rotation, but also absorbs and dampens much of the vibration set up during rotation, with obvious advantage.

The wood sheathing also presents a better surface to the hooks or chains of hoisting tackle than does the bare metal of the mold, there consequently being less danger of tackle slippage.

I have also provided a novel type of end connection between the metal shell and wood sheathing, one of the connecting elements being provided in such form that it is adapted to take the chuck of a centrifuge.

Other features of novelty and objects of the invention will be made apparent in the following detailed description, reference being had to the accompanying drawings, in which:

Fig. 1 is a side elevation of an assembled mold equipped with wooden sheathing;

Fig. 2 is a transverse section on line 2—2 of Fig. 1; and

Fig. 3 is a longitudinal section through the mold on line 3—3 of Fig. 2.

In the drawings I have illustrated a mold for casting concrete lamp posts having well defined base and cap portions but it will be understood the invention, in its broader aspects, is equally applicable to molds for casting shafts of uniform or gradually diminishing diameter throughout their longitudinal extent.

The metal shell of the mold is parted longitudinally to form a plurality of separable sections 10. Each section is made up of shaft portion 11, base portion 12 and cap portion 13, the portions being bolted together more or less permanently so each section may be handled as a unit during the assembly and knocking down of the mold. In other words, while each section is made up of separable parts, the parts are not usually uncoupled except for replacement or repair.

It is not necessary to the present invention that the provisions for joining the section portions be of the type illustrated, although the drawings show a connection which is particularly well adapted for use with the sheathing of my invention. Therefore, while I will describe the illustrated connection between the portions this is not to be construed as limitative on my broader claims.

Shaft portions have end flanges 14, 15 which are adapted to be bolted at 14^a to end flanges 16 and 17 of base portions 12 and 13, respectively. Extending from flanges 16 and 17 are band flanges 18 which extend over the edges of flanges 14, 15 and overhang the outer peripheral faces of shaft portions 11 to provide sockets 19 at both ends of each shaft portion.

A strip of wood sheathing 20 extends longitudinally over each shaft portion, the ends of the strip being seated in sockets 19 and secured in place by screws 21 which are countersunk in flanges 18. The inner faces of the strips are formed substantially complementary to the outer face of the mold, while the outer faces of the strips are substantially arcuate. The strips are cut away or notched at 22 to give access to bolts 23 which connect the side flanges 24, the latter extending longitudinally along the parting lines of the mold. These bolts serve to hold the several mold sections 10 in assembly during casting operations and are removed to allow the mold to be opened up after the concrete therein has taken sufficient set.

After the several mold sections are bolted together, bands 25 are clamped therearound

to hold the sheathing snugly to the metal shell at points intermediate their end attachment. There is then no liability of the sheathing becoming loosened or moving away from the metal shell when the mold is being revolved by the centrifuge.

The outer peripheral faces of band flanges 18 are preferably covered with bands of heavy fabric F to provide a better gripping surface for the centrifuge chucks (not shown) which engage the mold only at these points. Thus flanges 18 serve not only as keepers for the ends of the sheathing strips but also as chuck engagement members.

The wood sheathing not only protects the metal shell from damage during assembly and transportation of the mold to and from the centrifuge, but also tends to absorb and dampen the vibrations of said shell during rotation of the mold, thereby materially prolonging the useful life of the structure.

It will be understood the invention is not limited to the precise structure and arrangement illustrated, and I do not wish to be limited to this structure and arrangement except as I may specifically limit the claims.

Having described a preferred form of my invention, I claim:

1. A mold for posts embodying a plurality of metal shell sections adapted to be joined together to form a tubular shaft mold, detachable means for so joining the sections, a sheathing for each section, there being a socket formed at the ends of each section and opening towards the center thereof, the ends of said sheathing being adapted to extend into said sockets, and means for holding said sheathing ends against movement through said sockets.

2. A mold for posts embodying a plurality of metal shell sections adapted to be joined together to form a tubular shaft mold, detachable means for so joining the sections, an annular flange overhanging and spaced from the peripheral face of the assembled shaft mold at its ends, sheathing extending from end to end of each section, the ends of the sheathing being secured in the sockets defined by said flange and peripheral face.

3. A mold for posts embodying a plurality of metal shell sections adapted to be joined together to form a tubular shaft mold, a mold member secured to the end of each section, a wooden sheathing extending from end to end of each section, and means on said members for holding the sheathing to the sections.

4. A mold for casting posts in a centrifuge, embodying a multi-part tubular metal shell, a centrifuge chuck engagement member secured to the shell and spaced from the peripheral face thereof, and a wood filler positioned in the space defined by the engagement member and peripheral face of the shell.

5. A mold for casting posts in a centrifuge, embodying a multi-part tubular shell, a centrifuge chuck engagement member secured to each end of the shell and spaced from the peripheral face thereof to form sockets about the shell, the socket mouths being disposed towards the center of the shell, and sheathing secured to one of the shell parts and with its ends disposed and secured in said sockets.

6. A mold for posts embodying a metal shaft member, a mold member secured to the end of the shaft member, a wooden sheathing extending from end to end of the shaft member, and means on said mold member adapted to hold the sheathing to the shaft member.

7. A mold for posts embodying a metal shaft member, a centrifuge chuck engagement member secured to the shaft member and having a band spaced from the peripheral face thereof, and a wood filler positioned in the space defined by the band and the peripheral face of the shaft member.

In witness that I claim the foregoing I have hereunto subscribed my name this 19th day of January, 1925.

HENRY BARKSCHAT.