

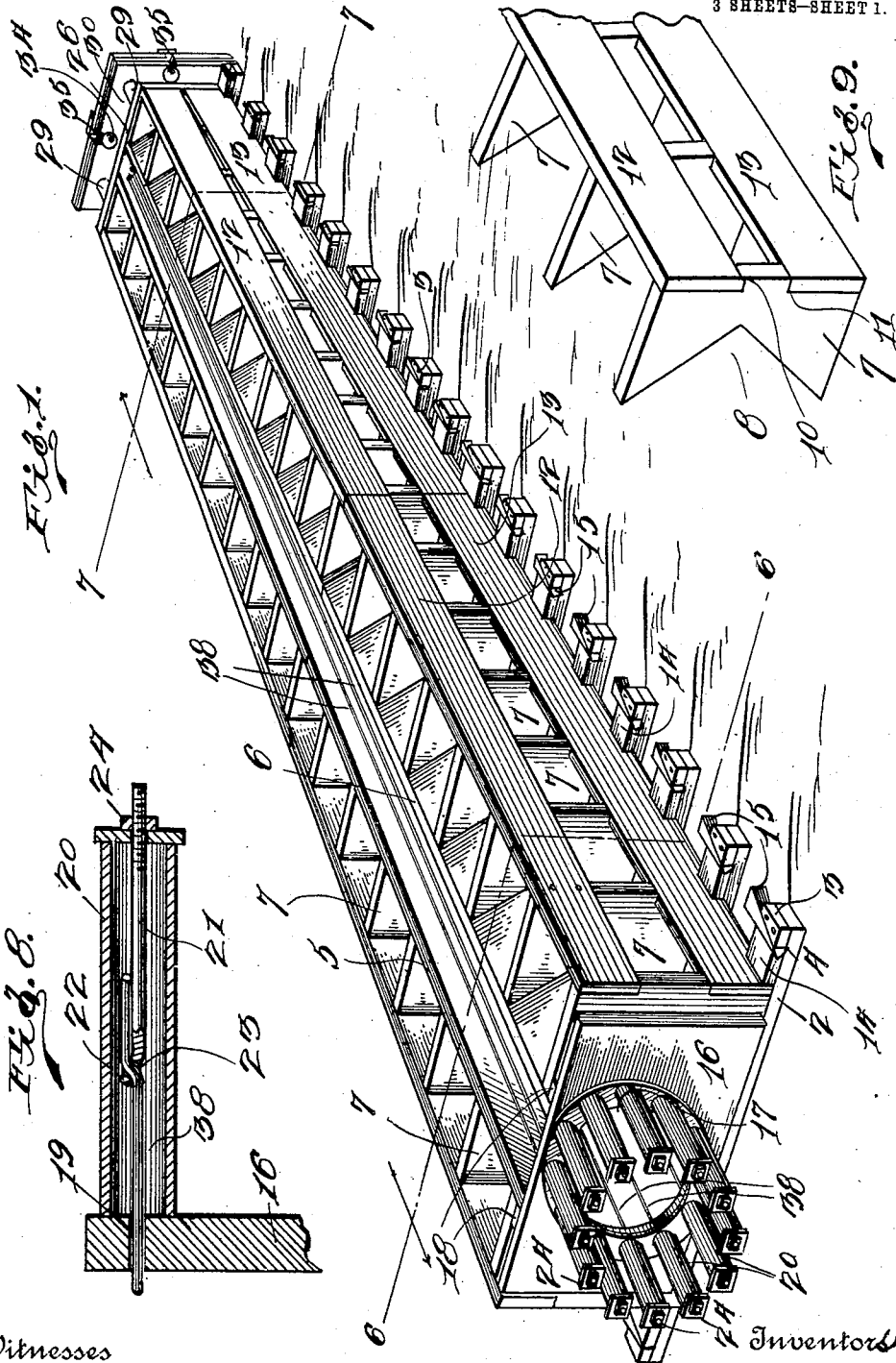
F. H. TIDNAM & J. N. GRAVES.
MOLDING APPARATUS.

APPLICATION FILED JAN. 25, 1910.

Patented Nov. 29, 1910.

977,345.

3 SHEETS—SHEET 1.



Witnesses

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By E. E. Vrooman, Attorney.

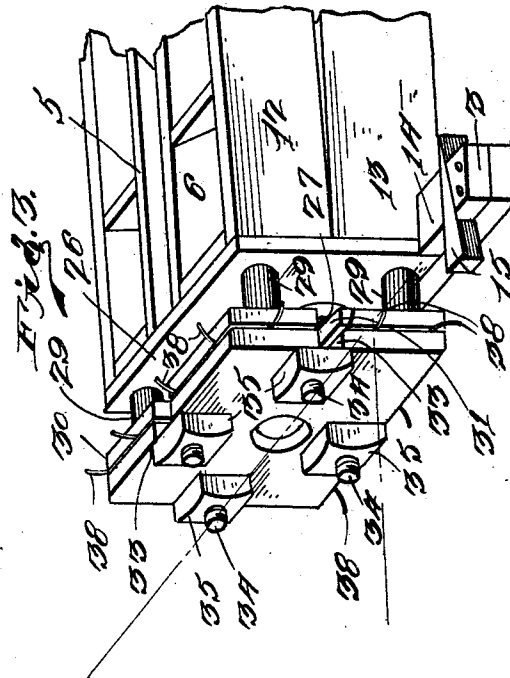
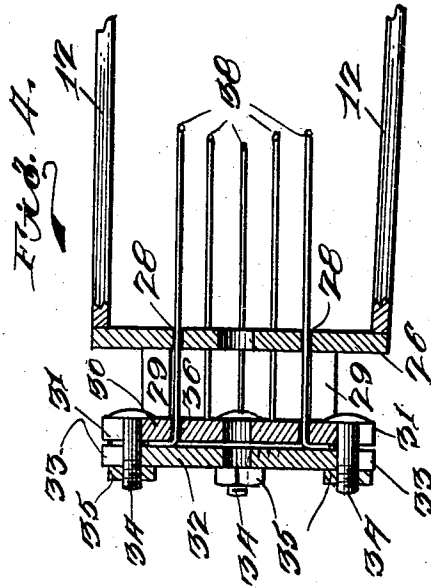
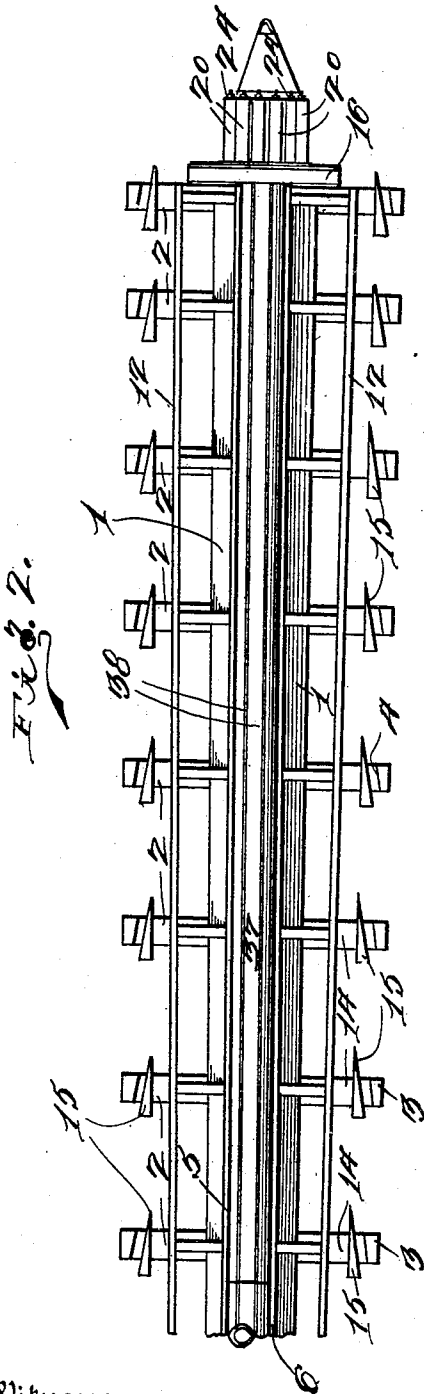
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Witnesses

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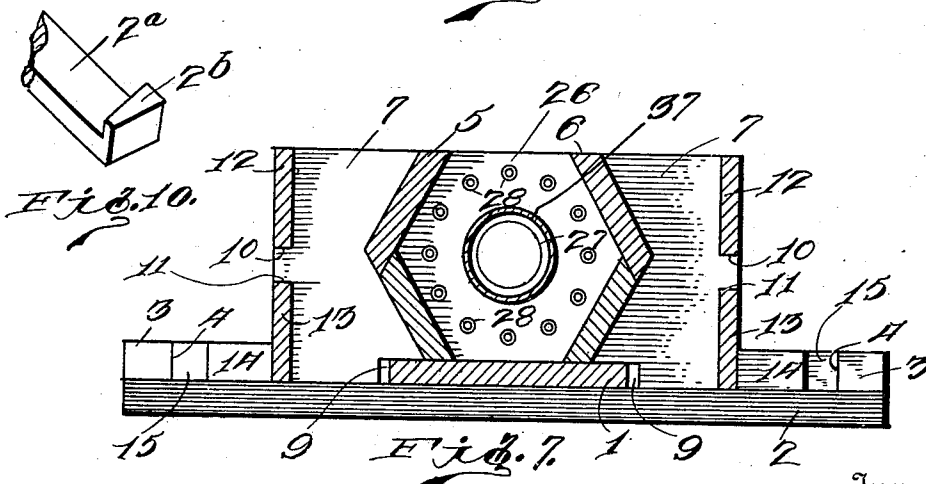
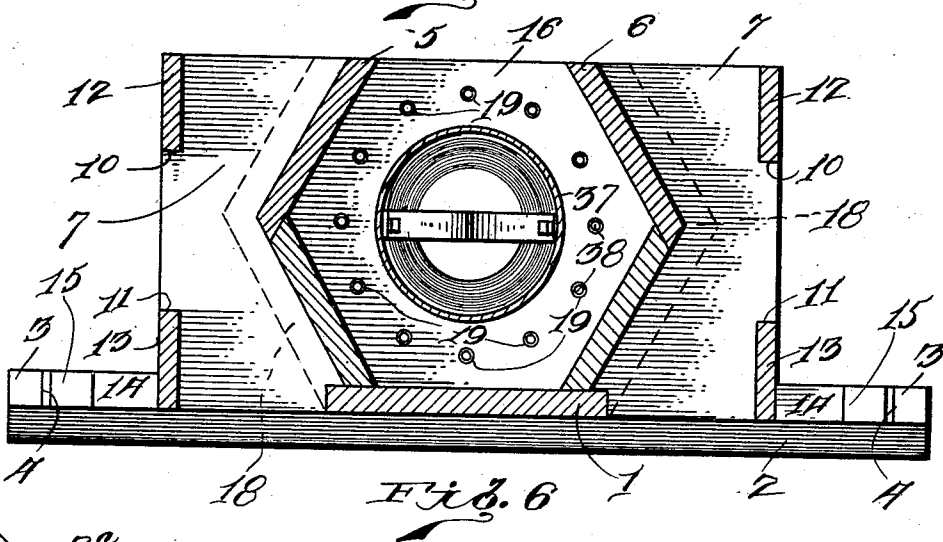
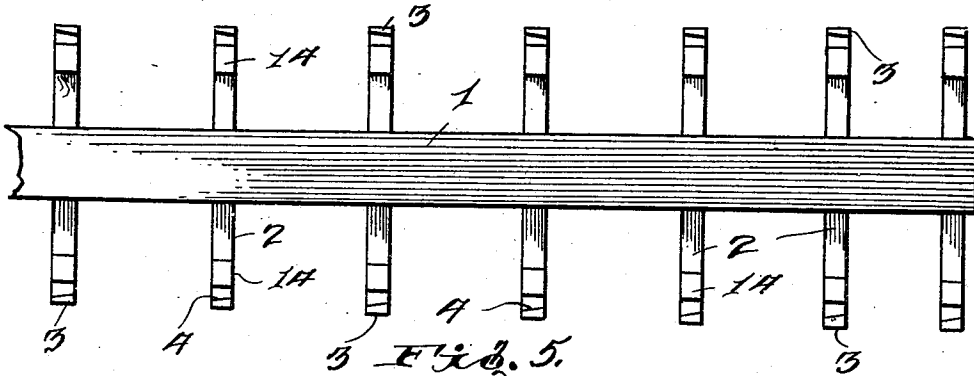
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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MOLDING APPARATUS.

977,345.

Specification of Letters Patent.

Patented Nov. 29, 1910.

Application filed January 25, 1910. Serial No. 540,048.

To all whom it may concern:

Be it known that we, FREDERICK H. TIDNAM and JOHN N. GRAVES, citizens of the United States, residing at Oklahoma city, in the county of Oklahoma and State of Oklahoma, have invented certain new and useful Improvements in Molding Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to molds especially adapted for use in connection with posts, and the principal object of the same is to provide a mold of the character stated which may be readily set-up or taken apart, means being provided for rigidly holding the mold in a set-up position, and means being also provided whereby reinforcing wires that are to be embedded in the post may be tightened so that sagging thereof is prevented.

In carrying out the object of the invention generally stated above it will be understood, of course, that the essential features thereof are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying drawings, wherein:—

Figure 1 is a perspective view of the improved mold. Fig. 2 is a top plan view thereof. Fig. 3 is a fragmentary view of the rear end of the mold. Fig. 4 is a horizontal sectional view taken on the line 4—4, Fig. 3. Fig. 5 is a fragmentary top plan view of the mold pallet, showing its transverse supporting strips or sleepers. Fig. 6 is a transverse vertical sectional view taken on the line 6—6, Fig. 1. Fig. 7 is a similar view taken on the line 7—7, Fig. 1. Fig. 8 is a detail sectional view of one of the wire tighteners. Fig. 9 is a fragmentary detail perspective view of one of the side supports for the mold. Fig. 10 is a detail fragmentary perspective view of a modified support or sleeper for the pallet.

Referring to said drawings by numerals 1 designates the flat pallet which forms the base of the improved mold, said pallet being preferably formed of one or more boards arranged longitudinally and being supported upon the regularly spaced apart transversely arranged sleepers 2 the ends of which project beyond the sides of the pallet and have a block 3 fast upon the outer end of their

upper surface, the inner face 4 of each block 3 being on an incline.

The side members 5—6 of the mold may be each formed of two boards the lower one of which rests directly upon the pallet 1, the upper board resting on the lower board, and said board being longitudinally arranged and relatively inclined so that they present a substantially V-shaped cross-section. In assembling the side members on the pallet, they are spaced apart the required distance and are retained in proper position by the bracing blocks 7 which have one face 8 notched to correspond with and engage over the outer surface of said side members 5—6. The blocks 7 are supported upon the sleepers 2 and have their base portion cut-away or notched as indicated at 9 to engage over the outer longitudinal edge of the pallet 1. The outer vertical edge of each block 7 is provided with an upper and a lower seat 10—11 for the boards 12—13 which connect said blocks, the lower board 13 having its lower longitudinal edge resting on the sleepers 2. A loose block 14 is placed upon each sleeper in contact with the outer surface of the lower board 13, and by means of a wedge-shaped block 15 that is forced across each sleeper between the fast end blocks 3 and loose blocks 14, pressure may be exerted upon the sides of the mold to adjust the same relative to the pallet 1 as will be readily understood.

The head 16 of the mold is provided with a central core-opening 17 and on its rear face is provided with cleats 18 for engagement over the ends of the side members 5—6. Said core-opening 17 is surrounded by an annular row of regularly spaced apart openings 19, the outer end of each opening 19 communicating with an outstanding tube 20 into which an adjusting rod 21 projects whose inner end 22 is upturned and provided with an opening 23. The other end of said rod projects through and beyond the head of its tube and is threaded for the reception of a nut 24 so that by rotating said nut, rod 21 will be moved longitudinally.

A board 26 is provided for the rear ends of the side members 5—6, said board having a central core-opening 27 and a surrounding annular row of smaller openings 28. Said board 26 is preferably held in position by means of the loose blocks 14 carried by

the sleeper 2 at the rear end of the mold, as is shown more clearly in Fig. 3. Bars 29 project from the outer surface of end board 26 and retain the inner member 30 of wire or rod clamping means spaced therefrom. Said inner member 30 is preferably a flat piece of board the edges of which are provided with notches 31 so that an outer member 32 also provided with edge notches 33 may be adjustably clamped to the inner member 30 by the bolts 34 that pass through said notches 31—33 and the lock nuts 35 for said bolts. Inner clamping member 30 is provided with an annular row of openings 36 that aline with the openings 28 of end board 26.

Preferably the mold tapers longitudinally to adapt the same for use in forming elongated posts, such as those used for telegraph and telephone wires, and as is shown more clearly in Fig. 1 the connecting boards for the side supporting blocks, the side members, and the pallet may be formed in sections so that the length of the mold may be increased or decreased as desired.

The core 37 for the mold may be of the telescopic tapering formation as fully set forth in our companion application executed of even date herewith, and is supported by the core-opening at the head and rear of the mold.

In use, the mold being assembled and the core in position, reinforcing wires or rods 38 are passed through the mold, one of their ends being passed through the annular row of openings in the head of the mold and are placed into hooked engagement with the end opening of adjusting rods 21 of tubes 20. The other ends of said wires or rods are passed through the annular row of openings of the rear board 26 and through the similar openings of clamping member 30 and placed between said member and member 32 and clamped therebetween by manipulating lock nuts 35.

It will be obvious from the foregoing that by manipulating the nuts 24, rods 21 will move longitudinally of their tubes and thereby regulate the tension of the reinforcing wires or rods.

It will be seen that the improved mold may be readily assembled or knocked-down, and that the described provision of the means for tightening the reinforcing wires or rods assures of the same being retained in proper position within the mold.

In Fig. 10 the sleeper 2^a has been shown provided with an integral end abutment 2^b, said end abutment obviously performing the same function as the end blocks 14.

What we claim as our invention is:—

1. A mold comprising a body, end closures therefor provided with openings for the passage of reinforcing rods, a tube communicating with each opening and into which said

rods extend, an adjusting rod projecting into each tube and adapted to engage with the rod therein, a nut for each adjusting rod, and clamping means carried by the other end closure for holding said reinforcing rods.

2. A mold comprising a pallet, spaced apart transversely arranged supporting sleepers therefor, longitudinally arranged spaced apart side member on said pallet, and supporting means loosely mounted on said sleepers and provided with means for interlocking engagement with said side members.

3. A mold comprising a pallet, transversely arranged spaced apart supporting sleepers therefor, spaced apart side members on said pallet, a supporting block on each sleeper provided with a notch for interlocking engagement with the side members, means for connecting the blocks at each side of the mold, and means for detachably holding said blocks in engagement with the side members.

4. A mold comprising a pallet, transversely arranged supporting sleepers therefor, spaced apart side members on said pallet, a pair of bracing blocks on each sleeper arranged to engage the outer surface of each side member, holding blocks at each end of said sleeper, a loose block arranged adjacent each holding block, and a wedge adapted to be forced between said blocks to adjust the pressure of the bracing blocks.

5. A mold comprising a body, a clamping plate carried by one end thereof, a second clamping plate adjustably and detachably connected to the first mentioned plate, said clamping plates adapted to engage reinforcements, and means at the other end of said body for regulating the tension of reinforcements.

6. A mold comprising a body having openings in one end for the passage of reinforcements, a plate carried by said end and provided with registering openings, a second plate adjustably and detachably connected to the first mentioned plate, said plates adapted to clamp reinforcements, and reinforcement adjusting means at the other end of said body.

7. A mold comprising relatively spaced sleepers, a pallet therein, side members mounted on said pallet, supporting blocks adapted for interlocking engagement with the outer surfaces of said side members, and wedges carried by the ends of each sleeper for adjusting said supporting blocks.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

FREDERICK H. TIDNAM.
JOHN N. GRAVES.

Witnesses:

F. W. CASE,
WALTER BOZARTH.