No. 680,432. Patented Aug. 13, 1901.

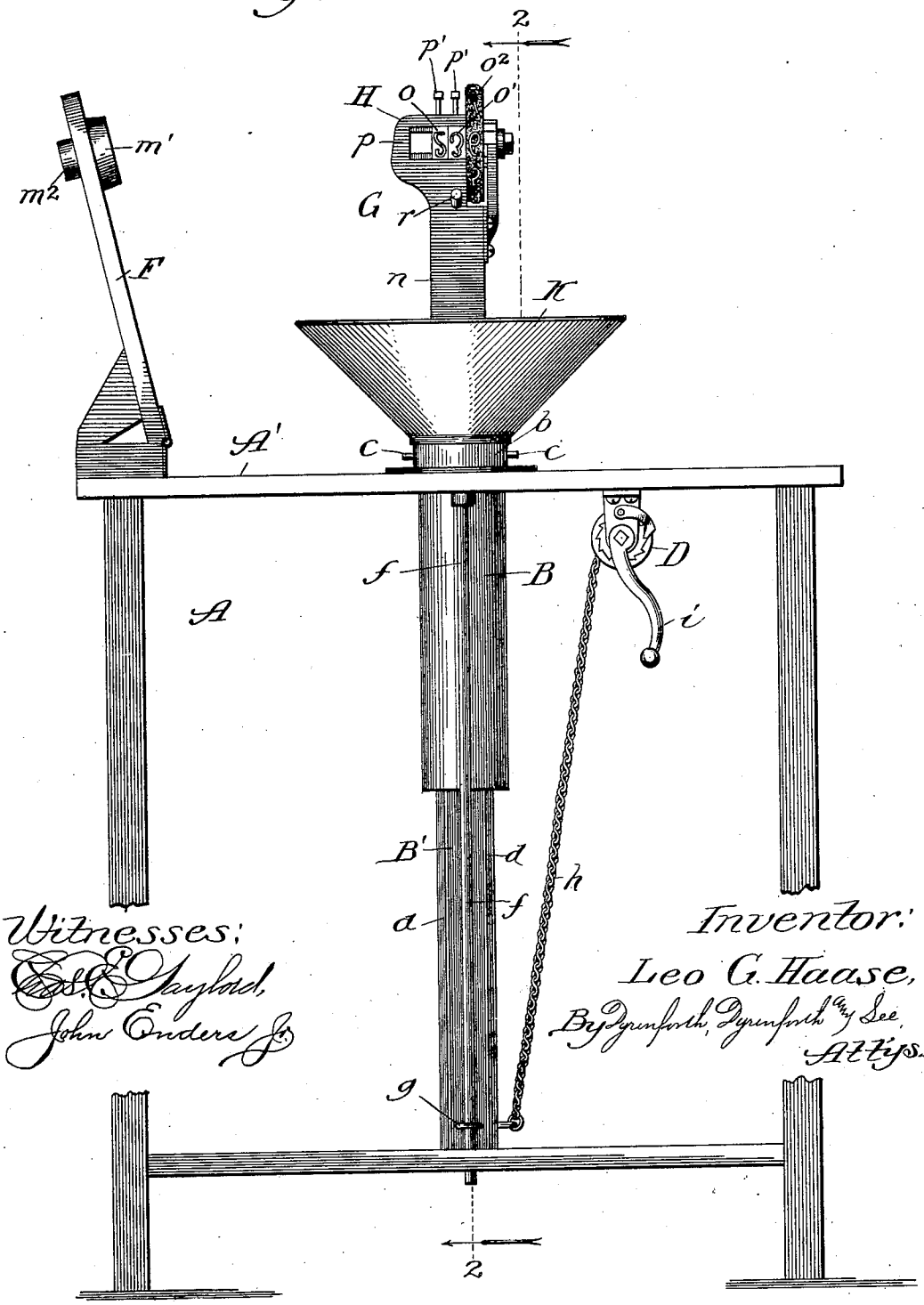
L. G. HAASE.

CEMENT POST MOLDING MACHINE.

(Application filed Apr. 1, 1901.)

(No Model.) 3 Sheets—Sheet 1.

Fig. 1.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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Fig. 3.

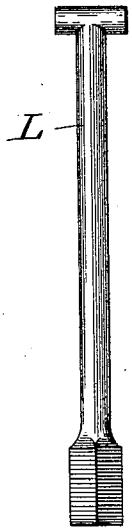
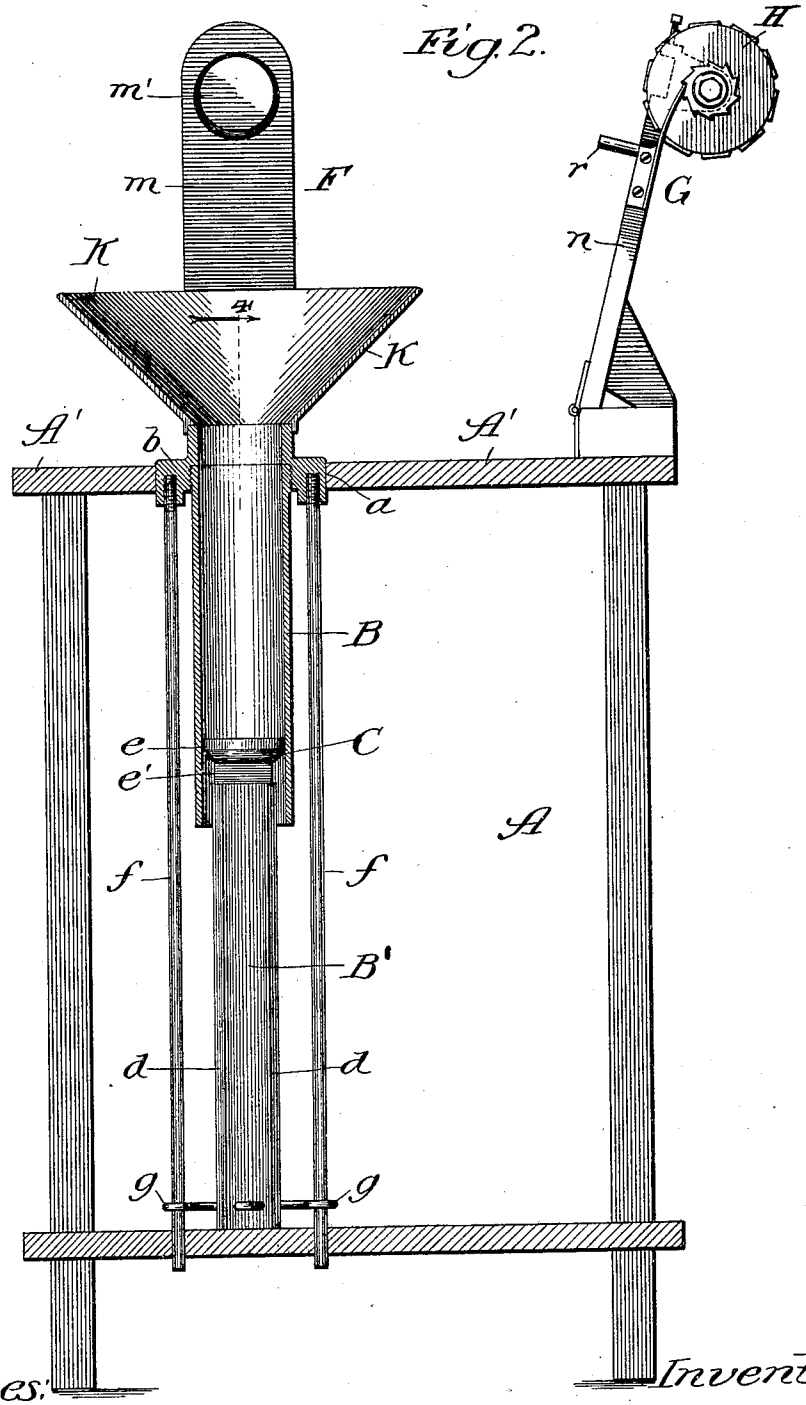


Fig. 2.



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Fig. 9.

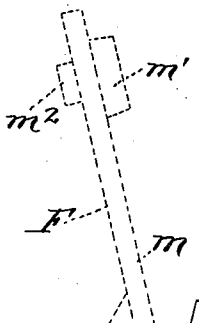
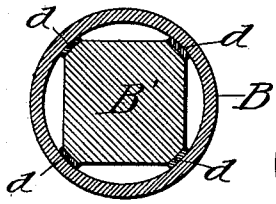


Fig. 8.



Fig. 4.



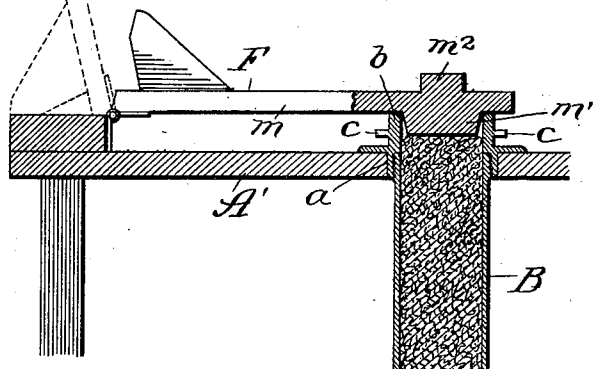


Fig. 7.

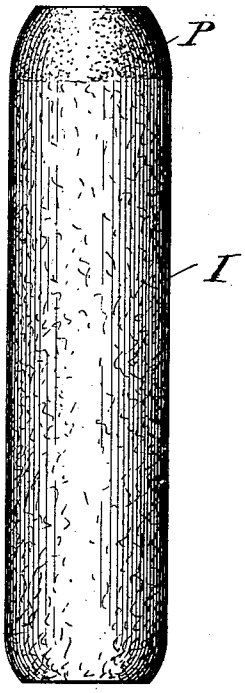


Fig. 5

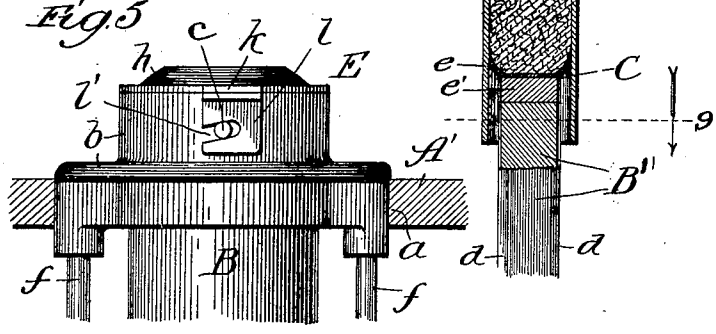


Fig. 6.

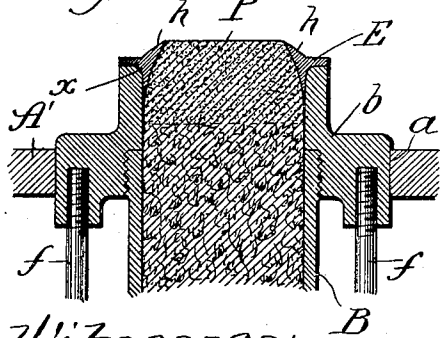
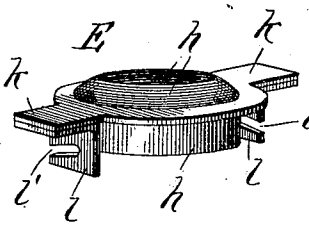


Fig. 10.



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UNITED STATES PATENT OFFICE.

LEO G. HAASE, OF OAKPARK, ILLINOIS.

CEMENT-POST-MOLDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 680,432, dated August 13, 1901.

Application filed April 1, 1901. Serial No. 53,862. (No model.)

To all whom it may concern:

Be it known that I, LEO G. HAASE, a citizen of the United States, residing at Oakpark, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Cement-Post-Molding Machines, of which the following is a specification.

My invention relates to improvements in the construction of a machine which I have more particularly designed for molding plastic compositions that harden into artificial stone into posts, especially the variety of posts used for marking graves and lots.

The more important objects of my invention are to adapt the molding-machine to produce the post manufactured by it with a rounding upper end, thereby to avoid a sharp-cornered construction of the top, which is liable to chip, and to provide compacting and stamping adjuncts on the machine which shall materially add to its efficiency.

My invention consists in the general as well as the more specific construction of parts whereby the aforesaid and other objects are accomplished.

Referring to the accompanying drawings, Figure 1 is a front elevation of the entire machine; Fig. 2, a section taken at the line 2 2 on Fig. 1 and viewed in the direction of the arrow; Fig. 3, a view in elevation of a suitable tamping implement for use with my machine; Fig. 4, a section taken at the line 4 on Fig. 2 and viewed in the direction of the arrow and showing the molding operation in progress; Fig. 5, an enlarged view, in side elevation, of the upper portion of the tubular mold; Fig. 6, a central vertical sectional view of the same, showing the molding operation completed; Fig. 7, a view in elevation of a post molded in the machine; Fig. 8, a plan view of the post, showing characters stamped in its upper end; Fig. 9, a section taken at the line 9 on Fig. 4 viewed in the direction of the arrow and enlarged and illustrating the preferred cross-sectional shape of the plunger; and Fig. 10 a perspective view of the post-finishing flanged ring.

A is the frame of the machine, of general rectangular form and which may be built of wood or metal. The top of the frame forms a table A′, provided with an opening *a*, in which is suspended and firmly secured in a vertical position at its flanged head *b* a tube or mold-cylinder B, preferably of metal, open at both ends. From opposite points on the head *b* of the cylinder, which projects beyond the top of the table A′, extend laterally the studs *c c* for the ring-locking purpose hereinafter described.

B′ is a plunger which may be formed of wood and the length of which should correspond with or be somewhat greater than that of the mold-cylinder. This plunger is best formed rectangular (or otherwise angular) in cross-section, with the longitudinal corners cut away to flatten them and covered with packing, such as leather strips *d*, to extend the flattened sections to the interior diameter of the cylinder, and thereby cause the plunger to fit the same snugly and adapt it to be moved therein, under guidance, without binding. On the upper end of the plunger is removably seated a mold-base C, which is best formed of a block of wood *e′*, having secured upon its upper side a disk *e* of metal the diameter of which should be such as to cause it to fit movably, but snugly, within the mold-cylinder and which is preferably dished, as shown, to round the base of the post I, formed in the mold. The disk *e* is best formed of zinc or some other metal that will not corrode under the effect of the moist material to be molded. Between the bottom of the frame A and the tube-head *b* extend the rods *f f* at opposite sides of and parallel with the cylinder B to afford guides for the plunger, from the lower end of which eyes *g g* project laterally to surround the guide-rods. The plunger is connected from its lower end, as by a chain *h*, with a drum D, journaled in a suitable support adjacent to the cylinder on the bottom of the table A′ and provided with a crank *i* for turning it.

E is the post-finishing ring for the top of the mold-cylinder. It is a flat ring, preferably of metal, formed with an interior annular flange *h*, projecting beyond the upper and lower edges of the ring and tapering upwardly, as also by preference slightly concave in cross-section on its inner surface. The outer surface of the lower section of the flange *h* is shown rounded concavely in cross-section at *x* in Fig. 6 to conform to the inner circular edge of the top of the mold-cylinder,

which should be rounded convexly in cross-section, as represented, to save it from the wear to which it would be subjected if the inner edge were sharp-cornered. From diametrically opposite points on the ring E ears *k k* project, and clips *l l* depend from them, having longitudinal recesses *l'* extending into them from respectively opposite ends to form hooks for engaging in opposite directions with the studs *c* on the cylinder-head *b*, as and for a purpose hereinafter described.

F is a compacting-tool comprising an arm *m*, hinged at one end upon the table A' to reach at its opposite end over the top of the cylinder B, to coincide with which the arm carries on its under side the compacting-boss *m'*.

G is an adjustable stamp comprising an arm *n*, hinged upon the table A' to extend at a right angle to the arm of the compacting-tool and provided at its free end with a device H for marking with characters, as numerals, the top of a post I, molded in the cylinder B. To this end the marking device H is represented as having removable type *o* and *o'*, respectively for hundreds and tens, removably held in place in a frame by set-screws *p'*, and a rotatable wheel o^2, with numbers from "0" to "9" on its periphery for the units. When the stamp is adjusted into horizontal position, the marking device upon it coincides with the upper end of the mold-cylinder. On the under side of the arm *n* is provided a stop *r* to prevent penetration of the marking characters of the device H to an undue depth into the upper end of the post being molded.

The operation is as follows: Starting with the plunger B' raised, by turning the drum D in one direction till the upper surface of the plunger is on a level with the top of the mold-cylinder the block *e'* is imposed upon the plunger, which is then lowered by turning the drum D in the opposite direction to bring the device C to the bottom of the cylinder, where it will form the mold-base, in which position the plunger may bear at its lower end against the bottom of the frame A. A hopper K, containing the supply of the composition to be molded (as concrete) sufficient for a post, is then applied to the top of the cylinder B, and the material is forced in small quantities into and tamped in the cylinder, as by a tamping-tool L. When the cylinder is full to overflowing, the hopper is removed and the arm *m* is turned down to cause its boss *m'* to bear on the top of the material in the cylinder, and then a blow is struck with a hammer upon the head m^2 on the lever to compact the material, driving it down to a fraction—say about one-forth—of an inch below the upper edge of the cylinder. Thereupon the compacting-tool F is raised and the finishing-ring E is adjusted in place by imposing it upon the upper end of the cylinder and turning it thereon to engage the hooks *l* with the studs *c*, and thereby lock the ring. With the ring thus adjusted a supply of cement material P, Fig. 5, of richer composition than that for the body of the post being molded is filled well into the circular cone-shaped cavity below the ring and leveled off at the top of the ring with a smooth trowel, when the arm *n* is lowered on its hinge to imprint prearranged characters on the device H in the material of the upper end of the post. Upon raising the arm *n*, the ring E is turned back to unlock it from the studs *c* and removed, and the crank *i* is turned to raise the plunger B' and lift the post out of the cylinder, which is thereupon carried away to be left to harden, the operator taking care to handle it in a manner to exert the greatest pressure against the device C (on which the post is removed) to avoid injury to the molded article, which is still more or less soft. The machine is then in condition to be used again in the manner described for molding another post.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a post-molding machine, the combination with a supporting-frame, of a molding-tube supported in vertical position on said frame, a ring for rounding the top portion of the post molded in said tube, said ring being removably seated on the upper end of said tube, a plunger supported to be raised in said tube to discharge from its upper end the molded post, said plunger forming at its upper extremity, in its normal lowered position, the mold-base for shaping the base of the post, and means for raising and lowering the plunger.

2. In a molding-machine, the combination with a supporting-frame, of a cylindrical molding-tube supported in vertical position in said frame, a plunger supported to be reciprocated in said tube, means for raising and lowering the plunger, and a mold-base for the tube removably seated upon the upper end of said plunger and comprising a block carrying on its upper face a dished metal disk fitting within said tube.

3. In a molding-machine, the combination with a supporting-frame, of a molding-tube supported in vertical position in said frame, a plunger supported to be reciprocated in said tube of angular cross-section with the corners flattened and faced with packing, means for raising and lowering the plunger in said tube, and a mold-base for the tube removably seated on the upper end of the plunger.

4. In a molding-machine, the combination with a supporting-frame, of a molding-tube supported in vertical position in the top of said frame, vertical guide-rods at opposite sides of said tube, a plunger reciprocable in said tube and having guides extending laterally from it to engage said rods, a drum journaled on said frame and provided with a crank for operating it, and a chain connecting said plunger and drum to actuate the plunger by rotating the drum.

5. In a molding-machine, the combination

with a frame, of a molding-tube supported in vertical position in the frame-top, and an adjustable stamp comprising an arm hinged on said top and carrying on its free end, to extend over the upper end of said tube, a marking device.

6. In a molding-machine, the combination with a frame, of a molding-tube supported in vertical position in the frame-top, and an adjustable stamp comprising an arm hinged on said top and carrying on its free end, to extend over the upper end of said tube, a marking device and, adjacent thereto, a stop.

7. In a molding-machine, the combination with a frame, of a molding-tube supported in vertical position in the frame-top, and an adjustable stamp comprising an arm hinged on said top and carrying on its free end, to extend over the upper end of said tube, a marking device composed of a frame provided with printing-type removably held in their frame by set-screws, and a rotatably-supported wheel provided about its periphery with imprinting characters.

LEO G. HAASE.

In presence of—
WM. B. DAVIES,
ALBERT D. BACCI.