(No Model.)

N. W. STOWELL.

MOLD FOR MAKING CEMENT PIPE.

No. 270,704. Patented Jan. 16, 1883.

Fig. 1.

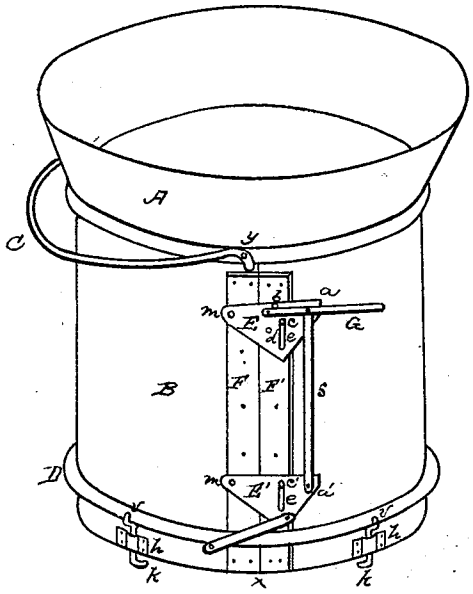
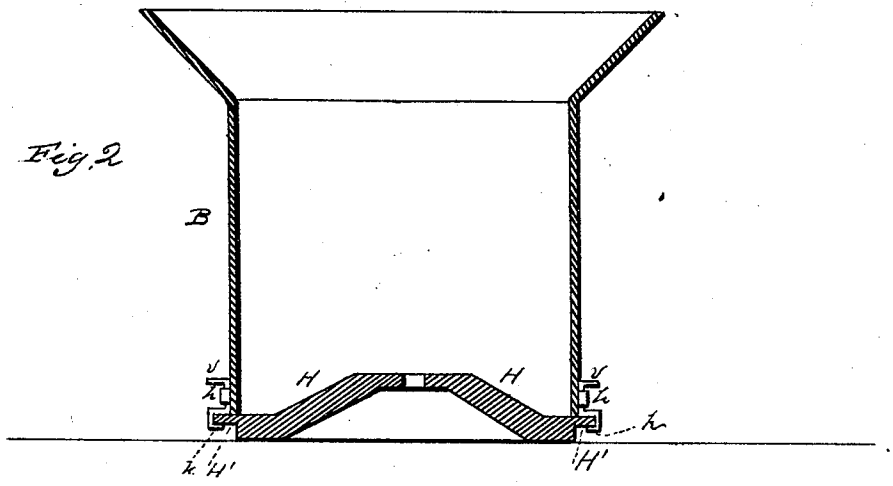


Fig. 2.



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MOLD FOR MAKING CEMENT PIPE.

SPECIFICATION forming part of Letters Patent No. 270,704, dated January 16, 1883.

Application filed September 30, 1882. (No model.)

To all whom it may concern:

Be it known that I, NATHAN W. STOWELL, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Molds for Making Cement Pipe; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to certain improvements in molds for making cement pipe; and it consists in certain details of construction, to be hereinafter described in the specification, and shown in the drawings.

Figure 1 represents a view of my mold when closed. Fig. 2 is a vertical sectional view of the base of the mold and the bottom-former.

In the drawings, B is an elastic metallic case or cylinder, having a vertical opening or joint extending along its entire length. The line *x* represents this opening. On the top of the case B is placed the flaring cylindrical hopper A, large enough to encircle the upper periphery of the case; and this hopper is provided with a curved lever, C, attached to its lower rim by studs *y*, so that when the lever is raised the curved ends below the studs *y* will press against the top of the plate F and a projection on the opposite side of the case and lift the hopper from the case.

F and F′ are two metallic plates, riveted to the case, one on each side of the joint *x*, and one of these plates overlaps and covers said joint.

E and E′ are two triangular plates of metal, attached by studs *m* to the plate F, and slotted to receive and move along the studs *c c′* in plate F′.

e e represent the slots in the plates E and E′. The plates E E′ are connected by the rod *s*.

G is a lever attached to plate E by the fulcrum pin or pivot *a*. By raising the outer end of lever G the opposite or inner end is brought down upon the stud *c*, turning the plates E E′ upon their pins *m m* and forcing the case open at the joint *x*. The lever G is allowed to rest upon the stud or projection *c*, so that sufficient leverage may be obtained to start the plates, as in practice it is found difficult to move them, but when raised the lever strikes against the stud *d* in plate E, by which means the cylinder is opened.

b is a stop, against which lever G rests and presses when reversed to close the case B.

D is a metallic ring, encircling the case near the bottom and connected by the rod *g* with the plate E′. When the plate E′ is lifted, through the agency of the lever G, the ring D partially revolves, and the rods *k*, working in the slots *v*, cause the projections at the lower end of *k* to pass under case B, and also under the "bottom-former" (which is used to form the female end of the pipe) H, and overcomes the tendency of the case to rise. These rods *k k* have projections upon their lower ends, and a crank or elbow upon their upper ends at right angles to the projections and working in the slots *v* of the ring D. This is provided with a projection, H′, extending all around the cast-iron ring, forming the bottom end of the pipe, which engages with a similar projection on the bottom of the case B; or it may be acted upon by the rods *k k*.

h h are clips fastened on the lower end of the case, which serve to hold the rods *k* in position.

In order to open the case or cylinder, raise the lever C, when its bent ends, striking against the top of the plate F and the projection on the opposite side, will lift the hopper from the case, then by raising lever G the plates E E′ will move on their pins *m*, and the case will be forced open along the joint *x*.

Having thus described my invention and discovery, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The combination of the bent lever C, turning on the supports *y*, with the hopper A and case or cylinder B, for the purpose of removing the hopper from the case.

2. An elastic cylindrical case, in combination with the plates E E′, connected by the rod *s*, and the lever G, all as described, and for the purposes specified.

3. The combination of the case or cylinder B, slotted or jointed its entire length, and having the clips *h* and rods *k*, with the encircling

ring D, rod *g*, rock-plates E E′, rod *s*, and lever G, substantially as and for the purposes specified.

4. The combination of the pipe-forming case or cylinder B with the plates E E′, and the studs *c c′* and *m m*.

5. The combination of the pipe-forming cylinder B with the bottom-former H and the clips *h h*, and the anchor-rods *k*, all as herein-before described.

In testimony whereof I affix my signature in presence of two witnesses.

NATHAN W. STOWELL.

Witnesses:

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