No. 772,292. PATENTED OCT. 11, 1904.

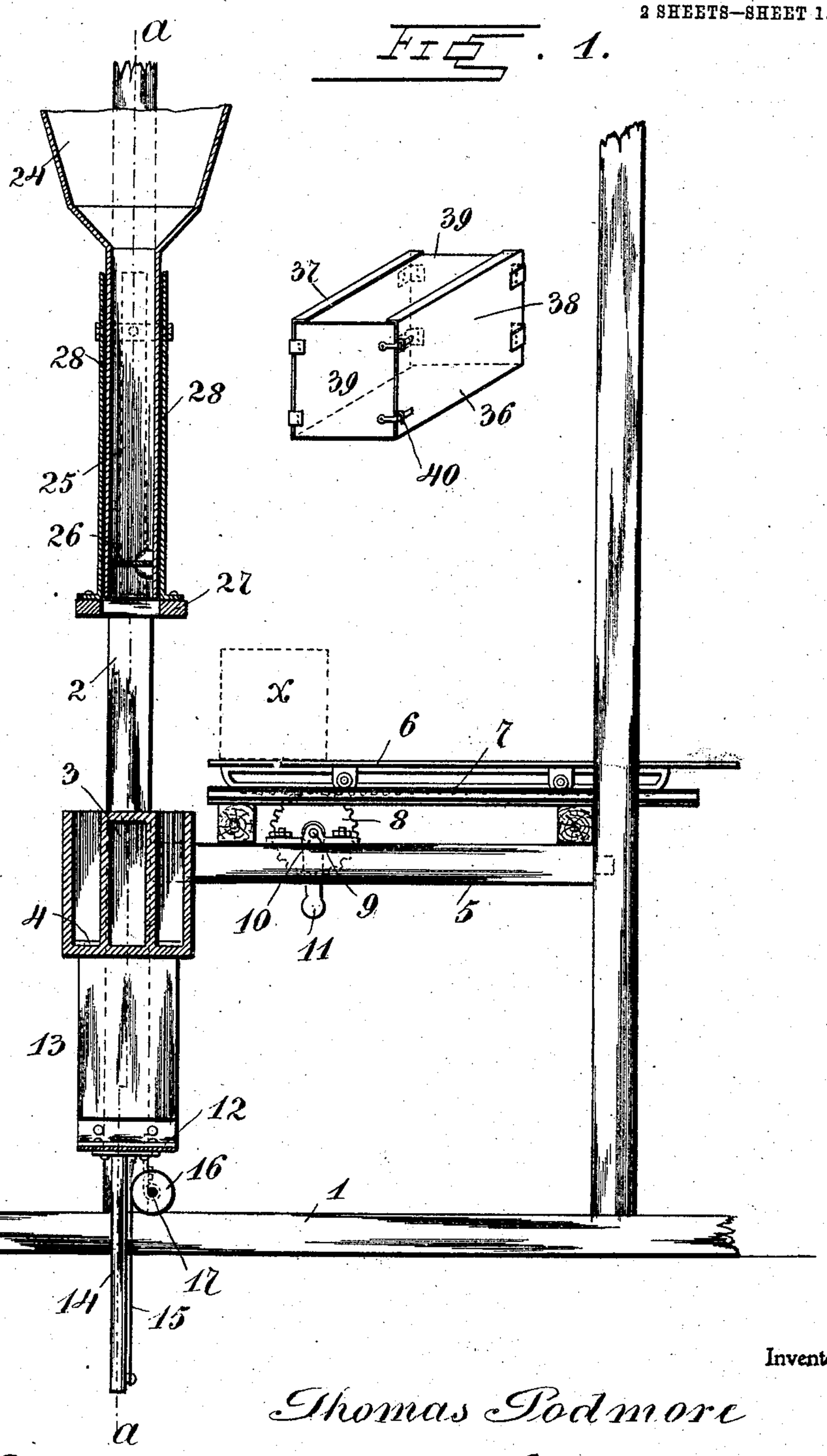
T. PODMORE.

MACHINE FOR MOLDING ROUGH CONCRETE BLOCKS.

APPLICATION FILED FEB. 8, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2.

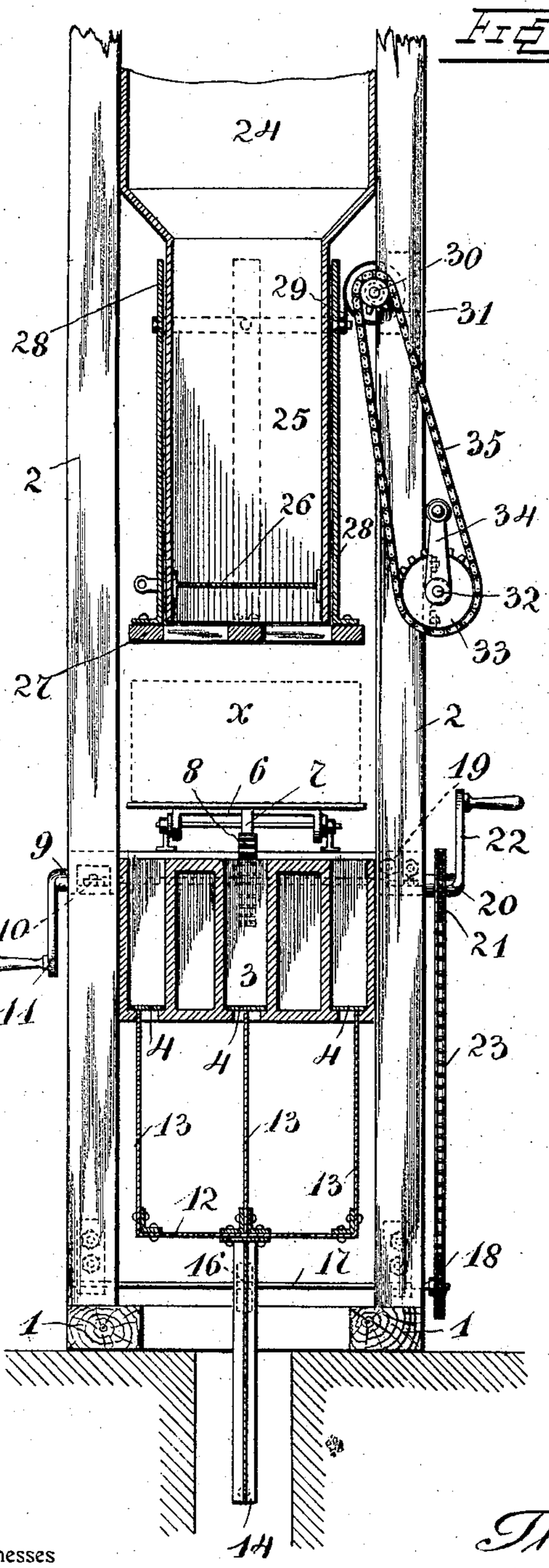
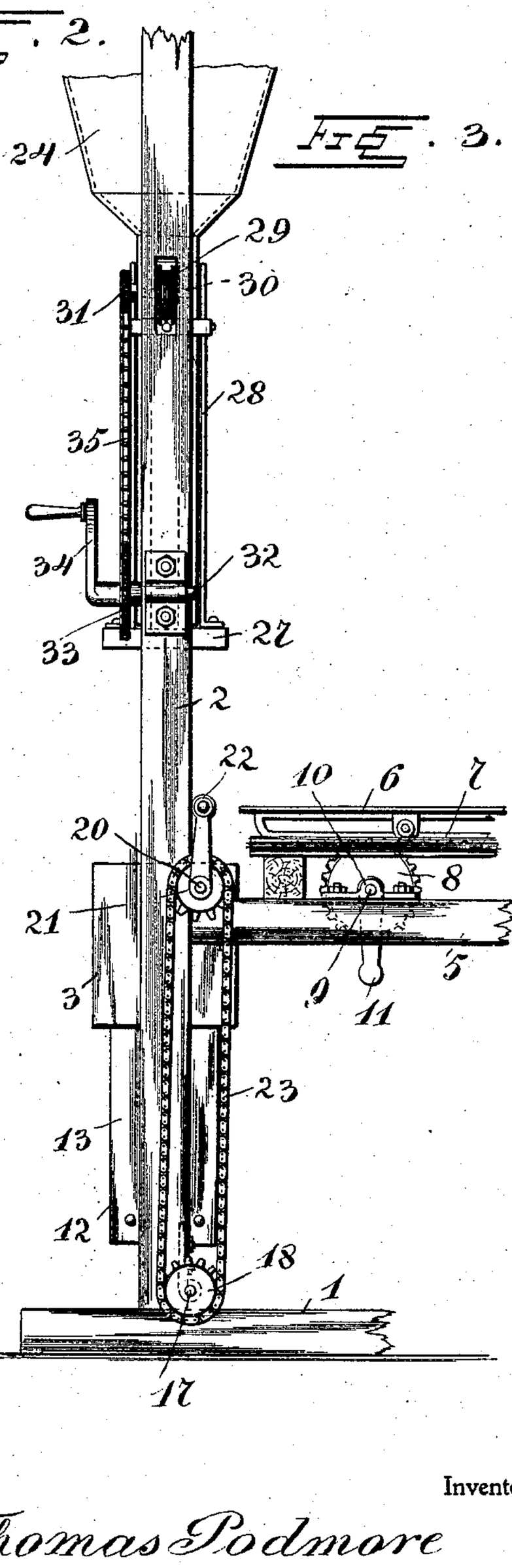


Fig. 3.



Witnesses

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No. 772,292. Patented October 11, 1904.

UNITED STATES PATENT OFFICE.

THOMAS PODMORE, OF WILKESBARRE, PENNSYLVANIA.

MACHINE FOR MOLDING ROUGH CONCRETE BLOCKS.

SPECIFICATION forming part of Letters Patent No. 772,292, dated October 11, 1904.

Application filed February 8, 1904. Serial No. 192,593. (No model.)

To all whom it may concern:

Be it known that I, THOMAS PODMORE, a citizen of the United States, residing at Wilkesbarre, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Molding Rough Concrete Blocks; 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.

My invention is an improved machine for making rough concrete building-blocks and other similar articles; and it consists in the construction, combination, and arrangement of devices herein described and claimed.

In the accompanying drawings, Figure 1 is a vertical longitudinal sectional view of a molding-machine embodying my improvements. Fig. 2 is a vertical transverse sectional view of the same, taken on a plane indicated on the line *a a* of Fig. 1. Fig. 3 is a partial side elevation of the same.

In the embodiment of my invention here shown a pair of sills, suitably spaced apart and embedded in or secured to suitable concrete or other foundation, are shown at 1. From these sills rise uprights 2, the upper ends of which may be secured to the roof of the building in which the machine is installed or may be otherwise secured. These uprights form the corner-posts of the main frame. Between the uprights 2, at one end of the frame, is secured a horizontally-disposed mold 3, which is here shown as of the form adapted for molding a rough hollow concrete building-block. The mold is open both on its upper and lower sides, and in the lower side of the mold are plates 4, which form closures therefor and are adapted to be moved vertically therein. A horizontal frame 5 connects the uprights 2 and extends longitudinally of the machine, and on the said frame is mounted a longitudinally-movable traveler 6, which may be moved by any suitable mechanism. For this purpose I here show a rack-bar 7, carried by the traveler, and a pinion 8 on a shaft 9, which has its bearings 10 supported by the frame 5 and is provided with a crank 11, whereby it may be operated. Within the scope of my invention any suitable means may be employed for operating the traveler, and I do not limit myself in this particular.

Below the mold is a vertically-movable hoisting-frame or ejector 12, which is provided with vertical arms 13, which are adapted to bear under the plates 4 and to move the latter upwardly and downwardly in the mold by the movement of the hoisting-frame. Within the scope of my invention any suitable means may be employed for operating the hoisting-frame. I here show it provided with a depending bar 14, to which is attached a cord or chain 15, the opposite end of which is attached to a winch or drum 16 on a shaft 17. The latter has its bearings on the sills 1 and is provided with a sprocket-wheel 18. In the bearing 19, which is secured to one of the uprights 2, is mounted a stub-shaft 20, which has a sprocket-wheel 21 and a crank 22, whereby it may be revolved. An endless sprocket-chain 23 connects the sprocket-wheels 18 and 21, and it will be understood that when the shaft 17 is rotated by turning the shaft 20 the hoisting-frame may be moved upwardly or downwardly, according to the direction of rotation of said shaft 17. It will be further understood that when the hoisting-frame is moved upwardly it will move the plates 4 with it and cause said plates to raise the molded article from the mold and eject the same therefrom. At a suitable distance above the mold is a feed-hopper 24, which may be of any suitable construction; but I provide it with an elongated vertically-disposed contracting discharge-neck 25, which is disposed above the center of the mold and is of suitable size and shape.

A slide 26 forms a cut-off device for the discharge-neck of the feed-hopper by means of which the said discharge-neck may be open or closed to permit of cutting off the discharge of material therefrom. A vertically-movable plunger 27 of suitable size and shape, which enters the mold from its upper side and compresses the material therein, is disposed to travel vertically on the discharge-neck of the feed-hopper, as shown. Within the scope of my invention any suitable means may be employed for operating the plunger. For the

purposes of this specification I show the same provided with a cord or chain attached to a drum 29 on a shaft 30, which has its bearings in one of the uprights 2 and is further provided with a sprocket-wheel 31. A stub-shaft 32, which is also journaled in a bearing in the said upright, is provided with a sprocket-wheel 33 and a crank 34, whereby it may be revolved. An endless sprocket-chain 35 connects the wheels 31 33.

In the operation of the device, the hoisting-frame being in its lowered position and the plunger being raised, the slide 26 is open and permits the discharge of a suitable quantity of material from the discharge-neck of the feed-hopper into the mold. The plunger is then operated to compress the material suitably in the mold, and when the mold is set the hoisting-frame is raised, thereby causing the molded article to be lifted from the mold and carried to such a point that it may be readily moved longitudinally from the plates 4 onto one end of the traveler 6, as shown in Fig. 1, the molded article being indicated at *x*. A case 36, having hinged sides 37 38 and hinged ends 39 and provided with securing device 40 at one of its corners, is then placed around the molded article *x* to permit the same to retain its shape while being conveyed to a drying-platform by means of the traveler.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. In a molding-machine of the class described, in combination with a relatively fixed mold open on opposite sides, an ejector operating from one side of the mold, a feed-hopper having a discharge-neck spaced from and disposed opposite the opposite side of the mold, and a plunger, guided on the neck of the hopper and adapted to operate in the mold, substantially as described.

2. In a molding-machine of the class described, the combination of a relatively fixed mold, ejecting-plates movable therein, means, disposed at one side of the mold, to actuate the said plates, a feed-hopper having a discharge-neck disposed opposite and spaced from the opposite side of the mold, a plunger guided on the neck of the hopper and adapted to operate in the mold, and a traveler, to receive the molded article from the ejector-plates and convey the same from the mold, substantially as described.

3. In a molding-machine in combination with a mold, a feed-hopper having a discharge-neck spaced from one side of and to supply material to the mold, and a plunger operating on and guided by said discharge-neck.

4. In a molding-machine of the class described, in combination with a relatively fixed mold, open on opposite sides, means spaced from one side thereof to feed material thereto and a plunger to enter the mold from one side, movable plates forming closures for the opposite side of the mold and adapted to travel therein, and a movable frame having arms in the said open side of the mold to bear against said movable plates to operate them.

5. In a molding-machine of the class described, in combination with a relatively fixed mold, open on opposite sides, means spaced from one side thereof to feed material thereto and a plunger to enter the mold from one side, movable plates forming closures for the opposite side of the mold and adapted to travel therein, means to operate said plates to eject a molded article, and a traveler to convey the molded article ejected from the mold upon the said plates and frame.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

THOMAS PODMORE.

Witnesses:
HARRY F. GEDDES,
ELTON M. GOFF.