

A. STRÖH.  
MACHINE FOR MAKING CEMENT BUILDING BLOCKS.  
APPLICATION FILED OCT. 3, 1907.

907,299.

Patented Dec. 22, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

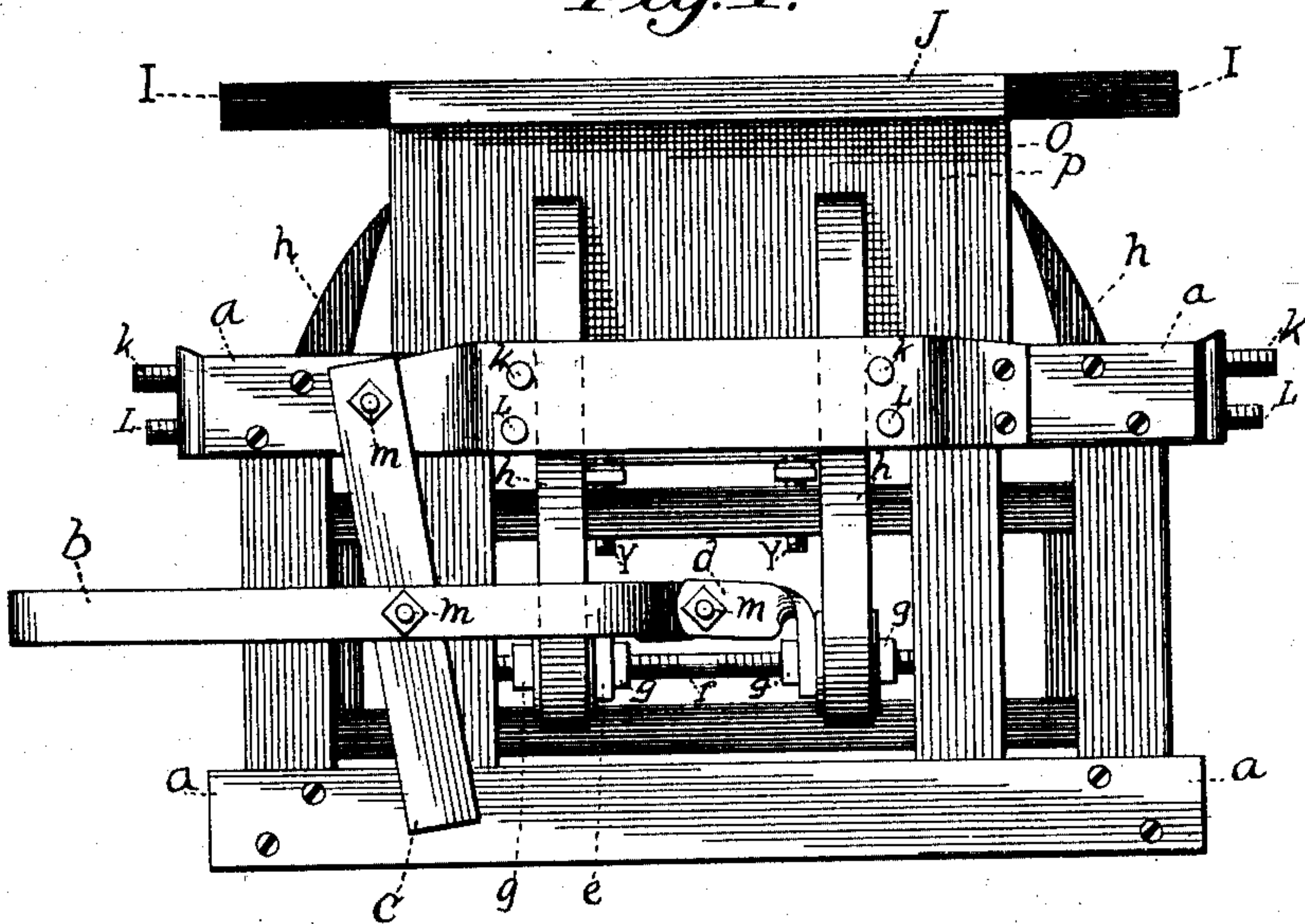
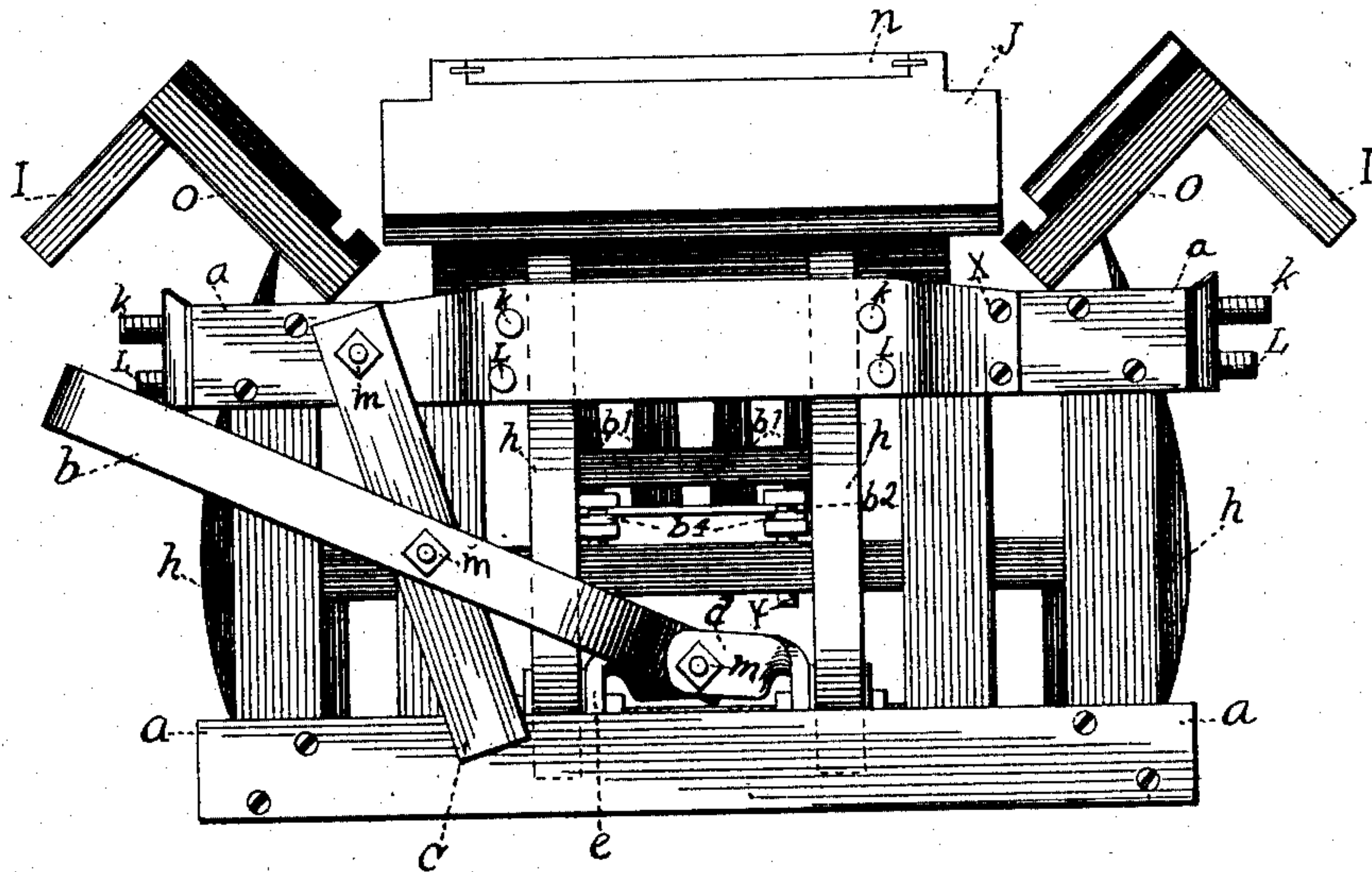


Fig. 2.



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Inventor:

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2 SHEETS—SHEET 2.

Fig. 3.

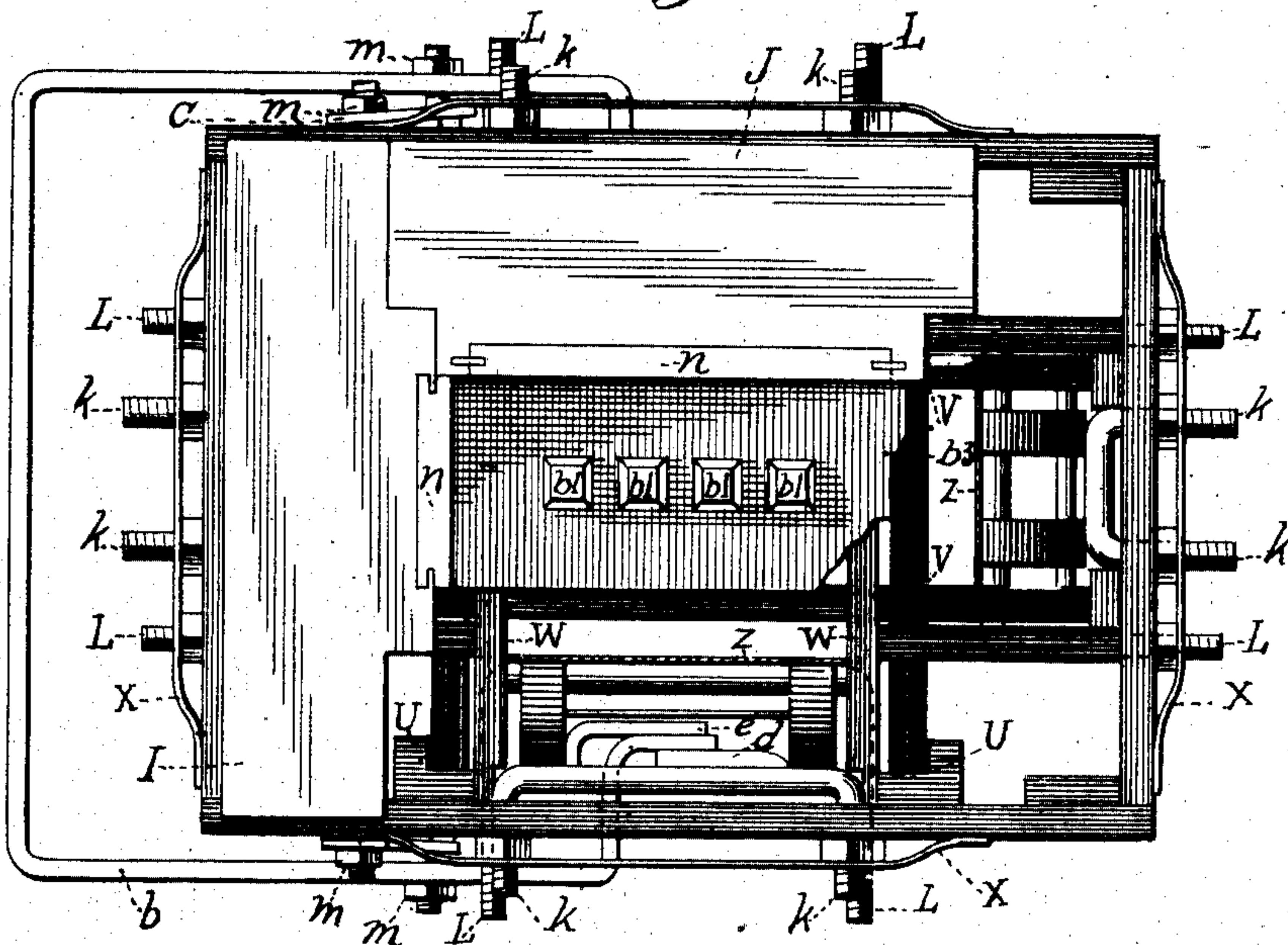
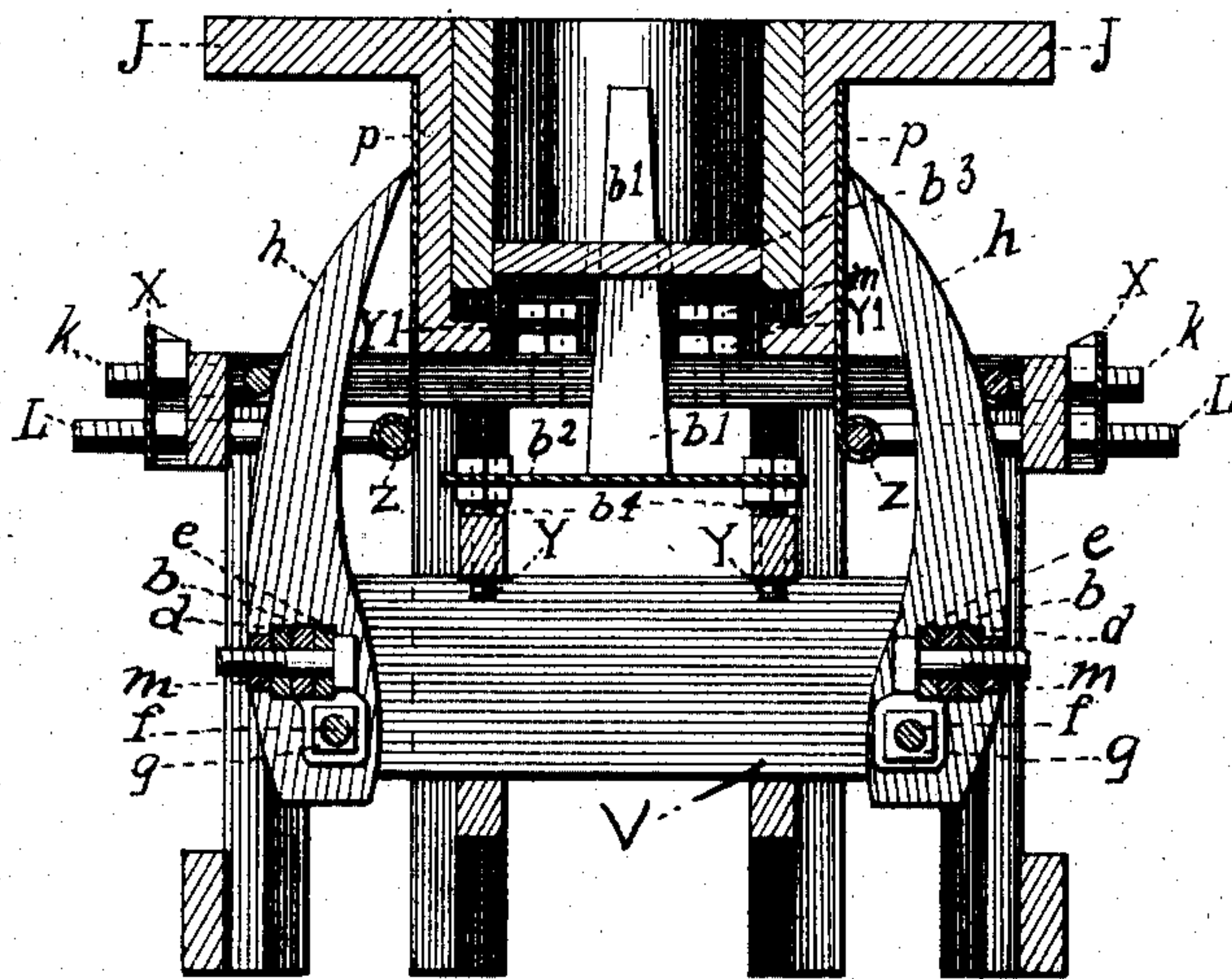


Fig. 4.



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# UNITED STATES PATENT OFFICE.

ALFRED STRÖH, OF HOOPER, NEBRASKA.

## MACHINE FOR MAKING CEMENT BUILDING-BLOCKS.

No. 907,299.

Specification of Letters Patent.

Patented Dec. 22, 1908.

Application filed October 3, 1907. Serial No. 395,806.

*To all whom it may concern:*

Be it known that I, ALFRED STRÖH, a citizen of the United States, residing at Hooper, in the county of Dodge and State of Nebraska, have invented an Improved Machine for Making Cement Building-Blocks, of which the following is a specification sufficiently clear to enable those skilled in the arts to which it appertains to make and use the same.

My invention relates to an improved machine for making cement building blocks. Its object is:—

1. The production of a machine for molding cement building blocks which machine will by one motion of a single lever handle remove the core and sides from the molded block and leave it ready and convenient for removal for drying.

2. The production of a machine for molding cement building blocks the mold of which may be assembled and the core inserted in position all ready for the molding of blocks, by one motion of a single lever handle.

3. The production of a rigid matrix and core for molding cement building blocks the sides and core of which are collapsible by one movement of a lever handle saving much time and labor in removing the molded blocks.

These purposes are attained in my invention by certain novel combinations of materials, parts and construction which will be hereinafter described and claimed.

My invention is illustrated in the accompanying drawings,

Figure 1 is a side view of my machine showing the matrix closed. Fig. 2, is a side view of my machine, showing the matrix open. Fig. 3 shows a top view of my machine with some parts cut away showing the construction below. Fig. 4 shows a cross-sectional end view of my machine.

Similar letters refer to similar parts throughout the several views.

I make the frame of my machine of suitable metal or wood with the sides and ends rectangular in shape as shown at "a" Fig. 1. On the inner side of each end and side I secure, vertically, two elevator guides, or tracks, which I make of angle-iron or other suitable metal, or of wood as shown at "u," Fig. 3.

I make my elevator frame-work rectangular in shape, of iron, or other suitable metal,

or of wood, which I form into four crosses, "v" Fig. 3, allowing the ends to project into the elevator tracks, "u", as shown in Fig. 3, so as to permit the elevator to move freely up and down in the elevator tracks. Through the two projecting ends of the elevator frame, at each end and side, I securely fasten with burs the threaded rods "f", Fig. 1 and upon each of which threaded rods I likewise secure two curved, bear claw, shaped, wedges "h" Figs. 1, 2, 3 and 4, which wedges I make of iron or other suitable metal, or of wood with the outer curve and point metal shod. Between the two wedges, at each side, I secure adjustably by burs to the threaded rod two metal arms "d" and "e", Fig. 3, by which arms the elevator, "V" Fig. 4, is suspended by means of a bolt from the ends of the heavy metal handle "b" Figs. 1—2 and 3. I make the lever handle "b", of heavy wagon tire iron, preferably in the general shape of the letter "U" with each end offset inwardly and movably attach the lever handle at each side to the arms "e" so as to swing from the upper part of the machine frame by means of the bolt "M". The two end pieces "O" and the two side pieces "P" of the matrix, Figs. 1, 2 and 4 are made of either wood or metal, metal preferred, and are hinged below on the metal staple or rod "L" (Fig. 4). The rod "L" is made in the shape of a large staple, the two ends being bent at right angles and parallel to each other are threaded and pass through and are adjustably attached to the frame of the machine by means of burs and are stiffened and strengthened in that position by means of metal plates "X" Figs. 1, 2 and 3, through which the rod "L" passes and against which its burs are tightened, the metal plates being secured to the machine frame. The end tables "I" and the side tables "J", I make either of metal or wood, preferably of metal, and securely fastened to the top of the sides and ends respectively of the matrix. I adjust the curved wedges by means of the rod "K" Figs. 1, 2 and 3, which I make in the shape of a large staple by bending the two ends at right angle making them parallel to each other and which I thread and attach to the frame adjustably by means of burs so as to force the points of the wedges against the sides and ends of the matrix closing same solidly when the heavy lever "b" is in a horizontal



position. I stiffen and strengthen the rod "K" in its position by means of the metal plate "X" through holes in which its threaded ends pass and against which its burs are tightened. I adjust my machine so that when the lever "b" is horizontal, the elevator has been raised, pushing the points of the curved wedges against the ends and sides of the matrix, closing the matrix and pushing the core up through its pallet in position for molding the blocks. I make the core all metal or the core proper of wood on a metallic base, the core base resting on the set-screws "Y" Fig. 4 which pass through and are adjustably attached to the elevator frame. The core pallet forms the bottom of the matrix and rests on two bolsters, the bolsters resting on the set-screws "Y" which pass through the two transverse beams "W" (Fig. 3) which transverse beams are immovably attached to the frame of the machine.

In using my machine I press down on the handle "b" until it assumes a horizontal position in which position the core has been shoved up through its pallet and the matrix closed ready for molding the block. I then fill the mold with the wet cement and sand tamping same solidly as it is filled, then raise the handle "b" causing the ends and sides of the matrix to swing open, or collapse, and the core to drop through the molded block and the pallet (by the force of gravity as the elevator descends) until the machine is in the position shown in Fig. 3, in which position the molded block may be readily removed (on its pallet) to dry. After removing the molded block on its pallet I place another pallet in position, press down the handle "b" again closing the matrix and raising the core ready for the molding of another block.

To all cement block makers the great economy in time and labor in making blocks with my machine will be at once apparent.

I am aware that my invention will suggest many equivalents, all of which I reserve the rights to. I am also aware that cement block machines have heretofore been made with the sides and ends of the matrix hinged, I therefore do not claim such feature broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is:—

1. In a cement block machine, a machine frame and a collapsible cement block matrix, a metal staple attached horizontally and adjustably by means of threads and burs on its ends to each end and side of the machine frame, the side and end walls of said matrix being separately hinged from beneath to the machine frame, an elevator composed of four pieces, two end pieces parallel to each other and two side pieces parallel to each other, the two side pieces inter-

secting and secured to the two end pieces at right angles leaving projecting arms thereof at each end and side, vertical elevator tracks attached to each end and side of the machine frame for the reception of the projecting elevator arms, bolts threaded their entire length passing through and attached by burs to the projecting arms on each end and side of the elevator, curved wedge shaped members pivoted on said bolts between each pair of elevator arms and positioned adjustably by burs thereon, guides for said curved members, said guides consisting of metal staples attached horizontally and adjustably to each end and side of the machine frame by burs on the threaded ends of said staples, two metal arms, said arms having their ends provided transversely with holes at right angles to each other and being held adjustably between the curved wedge shaped members by burs on the threaded bolts which connect the side arms of the elevator, a U shaped lever handle, said handle having each end bolted movably to the free end of the two metal arms on either side of the elevator, and straight metal members swingingly bolted to the top of the machine frame and loosely bolted midway the length of said members to the sides of the U shaped lever handle approximately midway the length of said sides.

2. In a cement block machine, a machine frame and a collapsible cement block matrix, a metal staple attached horizontally and adjustably by means of threads and burs upon its ends to each side and end of the machine frame, side and end walls of said matrix being each separately hinged, from beneath, by said staples to the machine frame, an elevator composed of four pieces, two end pieces parallel to each other and two side pieces parallel to each other the two side pieces intersecting and secured to the two end pieces at right angles leaving projecting arms thereof at each side and end, elevator tracks attached vertically to each side and end of the machine frame for the reception of the said projecting elevator arms, bolts threaded their entire length passing through and attached by burs to the projecting arms on each side and end of the elevator, curved wedge shaped members pivoted on said bolts between each pair of elevator arms and positioned adjustably by burs thereon, guides for said curved members said guides being metal staples attached horizontally to each end and side of the machine frame by burs on the threaded ends of said staples, two metal arms on each side of said elevator each of said arms being provided transversely with a hole in each end the said holes being at right angles to each other and the said arms being held adjustably between the curved wedge shaped members by burs on the threaded bolts which connect the side



arms of the elevator, a lever handle said handle being shaped like the letter U with end offset inwardly and bolted movably to the free ends of the two metal arms at each  
5 side of the elevator, a metal member composed of a straight piece of metal provided with holes, one at the end and one approximately midway its length, for the reception of bolts, swingingly bolted to the machine  
10 frame at each side and loosely bolted to the U shaped lever at each side and approximately midway the length of said sides, two bolster seats on each side of the elevator said bolster seats being composed of bolts  
15 threaded their entire length and passing up, projecting through and being attached to the side of the elevator by burs, two bolsters said bolsters being made of straight pieces of metal or other suitable material and provided at each end with a hole for the recep-  
20 tion of said bolster seats and seated adjustably thereon by means of burs, an interchangeable cement block core, said core being made with a base provided with slits for the  
25 reception of said bolster seats and seated

upon the said bolsters, two transverse beams, said beams being attached to each side of the machine frame, above and parallel to the ends of the elevator and parallel to each  
other, two core pallet seats above each end 30 of the elevator, said core pallet seats being composed of bolts threaded their entire length and passing up, projecting through and being attached to each of the two transverse beams by bolts, two core pallet bolsters, 35 the said core pallet bolsters being made the same as the core bolsters and seated adjustably on burs on the core pallet seats, and an interchangeable core pallet seated on the said core pallet bolsters directly above 40 and in line with the said core forming the bed of said matrix.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED STRÖH.

Witnesses:

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