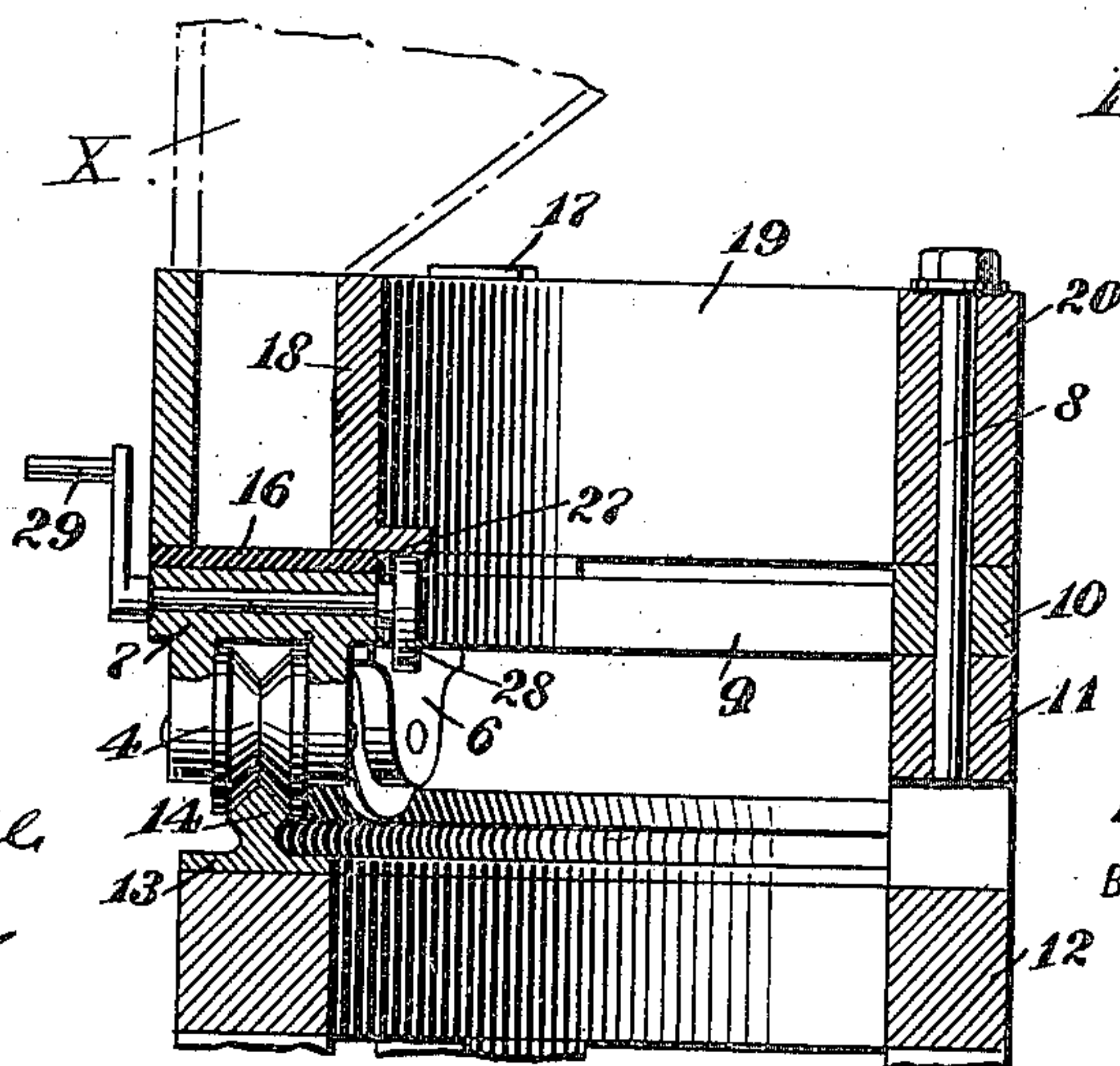
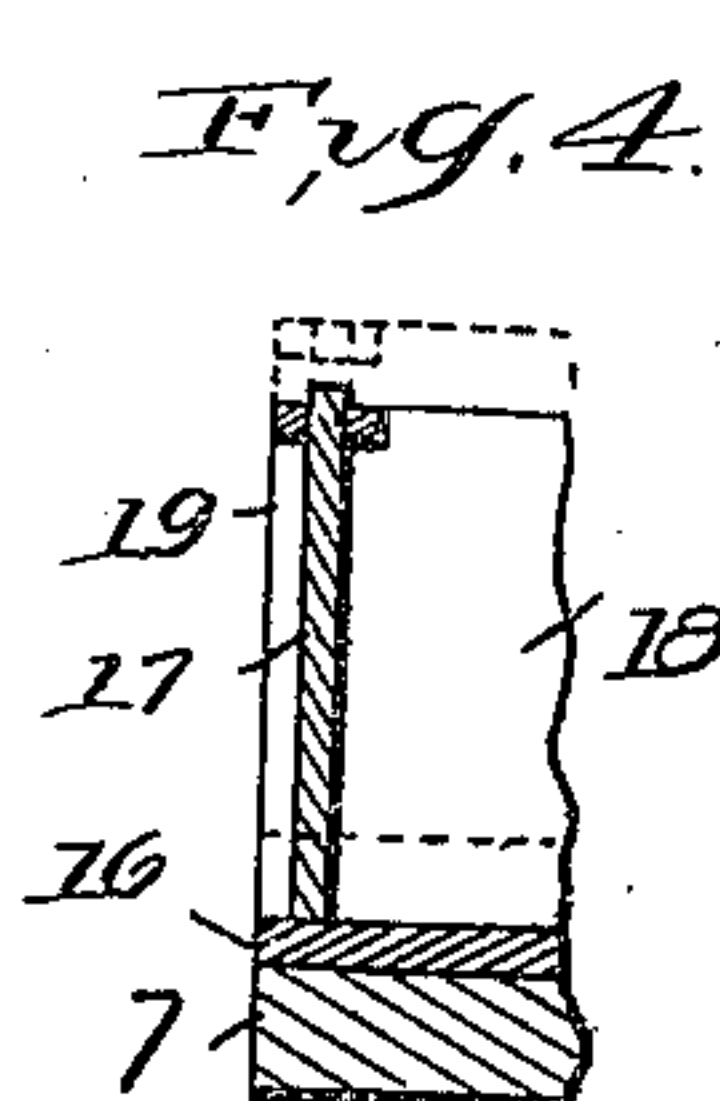
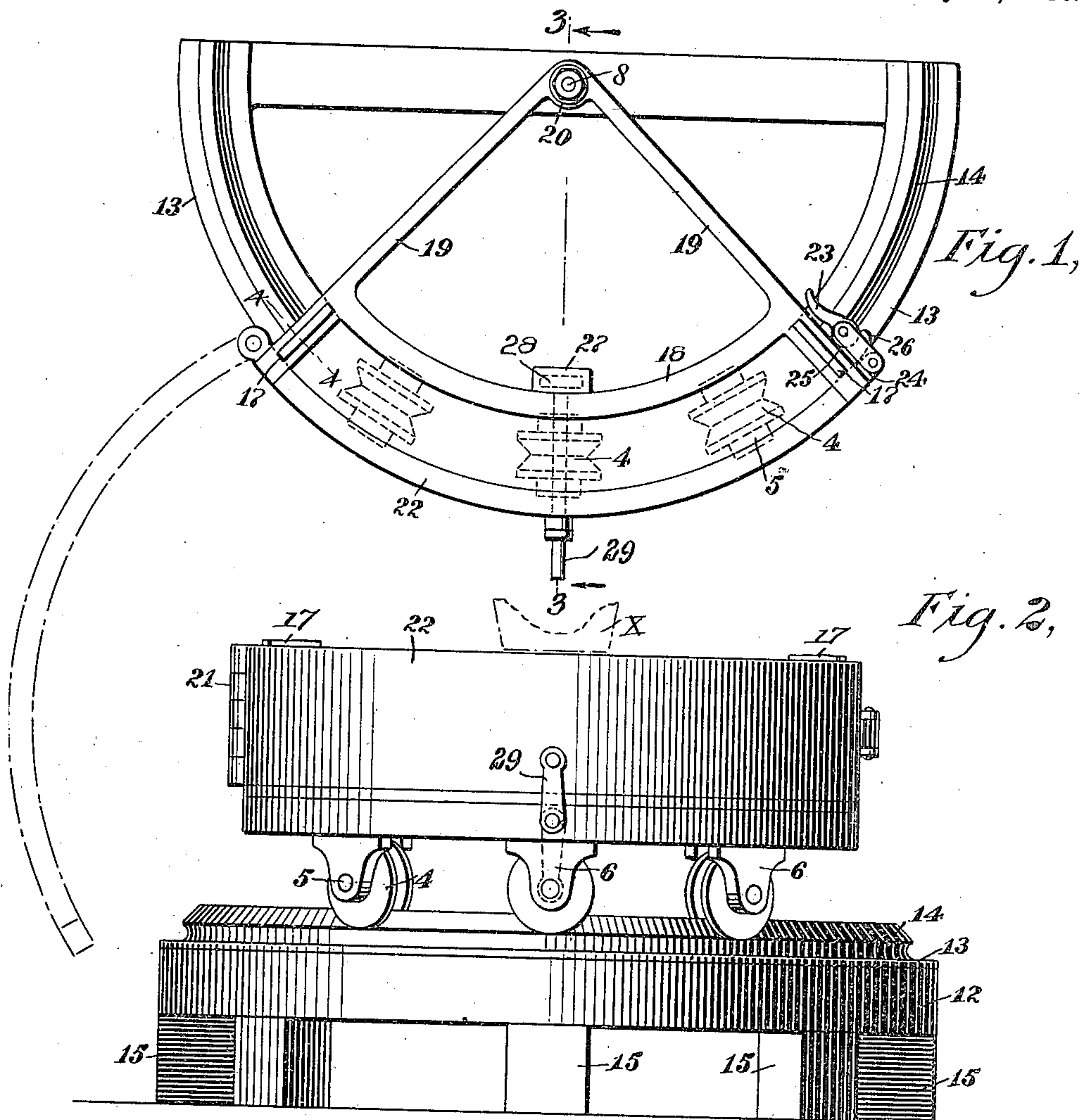


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MOLD FOR CEMENT BLOCKS.
APPLICATION FILED MAY 29, 1909.

964,258.

Patented July 12, 1910.



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MOLD FOR CEMENT BLOCKS.

964,258.

Specification of Letters Patent. Patented July 12, 1910.

Application filed May 29, 1909. Serial No. 499,122.

To all whom it may concern:

Be it known that I, FRANK H. HUBER, a citizen of the United States, and resident of Glidden, county of Ashland, State of Wisconsin, have invented a certain new and useful Mold for Cement Blocks, of which the following is a full, clear, and exact description.

The principal objects which the present invention has in view are: to provide a mold and bed therefor for the manufacture of cement blocks, to be quickly adjusted in position on the press; to provide a suitable mechanism whereby the molded block is released from the forming members; and to simplify the construction constituting the mold and operative members thereof.

One embodiment of the present invention is disclosed in the construction shown in the accompanying drawings, wherein like characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of a mold constructed in conformity with this invention and mounted upon a carrying bed; Fig. 2 is a side elevation of the same; Fig. 3 is a vertical cross section of the same taken on the line 3—3 in Fig. 1; and Fig. 4 is a cross section of the end of the mold taken on the line 4—4 in Fig. 1.

This mold is used by me in conjunction with a machine for forming cement blocks, the construction and arrangement of which are described and claimed by me in the application for Letters Patent filed August 5, 1909, and bearing the Serial No. 499,121.

The mold illustrated in the accompanying drawings is peculiarly adapted and designed for the manufacture of well curbs. These curbs are usually curved to form circular segments. The structural members of the mold are preferably arranged, as shown in the drawings, to form a curved open top box. The box is mounted directly over wheels 4, 4, which are provided with suitable trunnions 5, 5, mounted in bracket bearings 6, 6 formed on the bottom or bed 7 of the mold. The bed 7 is maintained on the track 14 provided therefor by a pivot bolt 8. For this purpose the bolt 8 is mounted in a hub 10 formed by the junction of side arms 9, 9. The bed 7, side arms 9, 9, the hub 10 and brackets 6, 6 are preferably formed as homogeneous integral metal castings.

The wheels 4, 4 are disposed to conform to the track 14 on which the mold is rotated

about the pivot 8. The track 14 is mounted upon a sill 12 formed to substantially the same curve. The sill 12 is supported on pillars 15, 15 suitably disposed to receive the weight of the mold and the impact to which the same is subjected by the packing ram. At the edge of the sill 12 they are connected by a cross brace, as shown in Fig. 3 of the drawings. Resting upon the cross brace is a framing member 11, provided to form the stationary mounting for the pivot bolt 8, which is extended upward therethrough.

The mold consists of a platen or bottom holding board 16, which is formed to the shape of the bed 7, and adapted to rest thereon. The box-like metal structure adapted to rest upon the platen 16 is formed by a back 18, a door 22 and radial side arms 19, 19. The door 22 constitutes the entire front and outer curved side of the mold. The door 22 is hinged to one of the side arms 19 by a heavy hinge 21. At the opposite end of the door there is provided a jam latch 23, which is secured to the door by means of links, as shown in Fig. 1 of the drawings. The links are pivotally connected to a lug 24 extended from the end of the door and to the pivot center of the latch 23. Set out from the side of the side arm 19 adjacent to the end of the door carrying the latch 23, when the said door is closed, is a lug 26. When the door is closed the links connecting the lug 24 and latch 23 are thrown over the lug 26 to encompass the same, the axis of the eccentric head of the latch 23 being in position to pass behind the lug 26. When, however, the latch 23 is thrown down in the position shown in Fig. 1 of the drawings, the long diameter of the eccentric head is forced against the lug 26 to draw the lug 24, and door 22 connected therewith, securely in locked relation with the mold frame.

The side arms 19 have formed thereon extensions which bridge the box-like structure of the mold between the back 18 and the door 22 at either end of the said box-like structure. These bridge extensions are slotted longitudinally to receive the end pieces 17, 17. The end pieces 17, 17 are separable and removable from the mold. As a rule, the pieces 17, 17 are constructed from short wood sections. Their purpose is to form the ends of the molded block and protect the same from breaking down when the mold is raised, as hereinafter described.

Like the platen 16 they are removed from the mold with the block, which is molded on the said platen. In practice, the ends of the pieces 17, 17 are extended upward a short distance above the side arms 19, 19 and the back 18. This is for the purpose of providing a stop used in conjunction with the machine above referred to. The end pieces 17 may be inserted downward through the slots provided, or extended upward therethrough, as the mold is being made up.

On the back 18, and extended therefrom, is a bracket 27. Disposed immediately below the said bracket, and in supporting relation thereto, is an eccentric wheel 28. The wheel 28 is fixedly mounted upon a shaft extended in suitable bearings through the bed 7, and provided at the outside of the mold with a crank handle 29, substantially as shown in Figs. 1 and 3 of the drawings.

With a device constructed as above described, the operation is as follows: As shown in dotted lines in Fig. 2 of the drawings, at X is a feed hopper or packing device for ramming or packing the plastic material in the mold formed as above described. To fill the mold it is rotated to one side of the ram, swinging as it does to the quarter section past the said ram. Having been filled, the mold is placed under the ram, and while the same is being reciprocated the mold is moved back and forth about the pivot 8 until all parts of the material contained in the said mold have been thoroughly rammed. The mold is then swung to the opposite quarter section, or for the purpose of illustration, the right hand section of the track 14, from which side the delivery of the molded block is effected. The mold is prepared by placing upon the bed 7 the platen 16, the back 18, door 22 and side arms 19, 19 being raised on the eccentric 28, so that the platen may be thus inserted. The eccentric is then turned so that the weight of the door 22, back 18 and side arms 19, 19 rest firmly upon the said platen. The loose end pieces 17, 17 are quickly inserted in the slots provided in the over-hand portion of the side arms 19, 19. The elevation and depression of the arms 19, 19, the back 18 and door 22 are permitted by the sliding of the pivot bolt 8 in the support 11. It is only when unloading the mold that the door 22 is thrown back, as shown by the dotted lines in Fig. 1. To accomplish this the latch 23 is raised to release its grasp of the lug 26, when it may be thrown out of engagement therewith, leaving the door 22 free to open on the hinge 21. In this position the block contained within the mold is at liberty to be drawn outward through the center of the curvature of the mold. The eccentric 28 is, by means of the handle 29, rotated to raise the mold upward, the back 18 sliding in contact with the plastic material, and the

sides 19, 19 against the end pieces 17, 17, which remain with the block molded. When the side arms and back have thus been raised, the slotted over-hang portion of the said arms is disengaged from the end pieces 17, 17. By removing the platen 16 from the mold, the molded block is readily and easily removed. In practice I generally permit the pieces 17, 17 to remain on the block until the same is sufficiently set to be protected in its own strength from breaking away or crumbling of the mold edge. In some instances, however, and if desired, the end pieces 17 may be removed at any time from the block and returned to be used in the molding of successive blocks.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A mold for cement blocks comprising a supporting frame having a pivot extended therefrom; a circular track mounted on said frame concentric with said pivot; a mold guidably mounted on said track and having a back and bottom integrally formed and connected with said pivot by rigid members; removable end pieces; guides for said end pieces to hold the same substantially parallel with the radius of the curve of said track; and a door for said mold hingedly connected to the frame thereof and adapted to expose the outer side of the mold when thrown back from the same.

2. A mold for cement blocks comprising a supporting frame having a pivot extended therefrom; a circular track mounted on said frame concentric with said pivot; a mold guidably mounted on said track and having a back and bottom integrally formed and connected with said pivot by rigid members; removable end pieces; guides for said end pieces to hold the same substantially parallel with the radius of the curve of said track; a door for said mold hingedly connected to the frame thereof and adapted to expose the outer side of the mold when thrown back from the same; and a locking device for said door pivotally secured thereto and adapted to lock the said door to the said frame.

3. A mold for cement blocks comprising a supporting frame having a pivot extended therefrom; a circular track mounted on said frame concentric with said pivot; a box-like mold shaped to the curve of the track; a plurality of wheels mounted on said mold and set so that their axes are radial to the curvature of said mold and said track; a removable bottom for said mold; removable end pieces for said mold; means for holding said end pieces disposed radially to the curve of said mold; and a door forming the outer side of said mold hingedly mounted upon the frame thereof and adapted to expose the outer side when thrown back from said mold.

4. A mold for cement blocks comprising a supporting frame having a pivot extended therefrom; a circular track mounted on said frame and concentric with said pivot; a carriage having a flat body portion having edges curved concentrically with said track; supporting wheels for said carriage mounted thereon, their axes being extended radially to the curve of said carriage; a mold adapted to rest upon the said carriage and to engage the same, said mold being pivotally connected by side arms with said pivot; a door forming the outer side of said mold hingedly secured to the frame thereof; and a shaft pivotally mounted in the said carriage having a crank handle at the one end and a cam shaped member at the other end disposed under said mold to lift the same when said shaft is rotated.

5. A mold for cement block comprising a supporting frame having a pivot extended therefrom; a circular track mounted on said frame and concentric with said pivot; a carriage having a flat body portion having edges curved concentrically with said track; supporting wheels for said carriage mounted thereon, their axes being extended radially to the curve of said carriage; a mold adapted to rest upon the said carriage and to engage the same, said mold being pivotally connected by side arms with said pivot; a door forming the outer side of said mold hingedly secured to the frame thereof; a shaft pivotally mounted in the said carriage having a crank handle at the one end and a cam shaped member at the other end disposed under said mold to lift the same when said shaft is rotated; and removable end pieces adapted to be held within said mold and removable therefrom to form the ends of said mold.

6. A mold for cement block comprising a supporting frame having a pivot; a circular track mounted on said frame concentric with said pivot; a carriage; supporting wheels for said carriage disposed radially upon said track; a mold adapted to rest upon said carriage to constitute a box-like receptacle in conjunction therewith, said mold having slotted upper side extensions and side arms rotatably connected with said pivot; a door for said mold forming the outer side thereof hingedly mounted upon the frame thereof; separate end pieces for

said mold adapted to be held in said slotted upper side extensions; and means for raising the said mold vertically to free the said end pieces from engagement with the said slotted upper side extensions.

7. A mold for cement blocks comprising a supporting frame having a pivot; a circular track mounted on said frame concentric with said pivot; a carriage; supporting wheels for said carriage disposed radially upon said track; a mold adapted to rest upon said carriage to constitute a box-like receptacle in conjunction therewith, said mold having slotted upper side extensions and side arms rotatably connected with said pivot; a door for said mold forming the outer side thereof hingedly mounted upon the frame thereof; separate end pieces for said mold adapted to be held in said slotted upper side extensions; a rotary cam mounted in horizontal bearings and extended beneath the said mold and having a rise sufficient to lift the mold out of engagement with said end pieces; and manual means for rotating the said cam.

8. A mold for cement blocks comprising a supporting frame having a pivot; a circular track mounted on said frame concentric with said pivot; a carriage having side arms rotatably connected with said pivot to be guided thereby on said track; supporting wheels for said carriage disposed radially upon said track; a mold adapted to rest upon said carriage to constitute a box-like receptacle in conjunction therewith, said mold having slotted upper side extensions and side arms rotatably connected with said pivot; a door for said mold forming the outer side thereof hingedly mounted upon the frame thereof; separate end pieces for said mold adapted to be held in said slotted upper side extensions; a rotary cam mounted in horizontal bearings and extended beneath the said mold and having a rise sufficient to lift the mold out of engagement with said end pieces; and manual means for rotating the same cam.

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

FRANK H. HUBER.

Witnesses:

JOSEPH MOHR,
HARRY C. BEAL.