

No. 702,824.

Patented June 17, 1902.

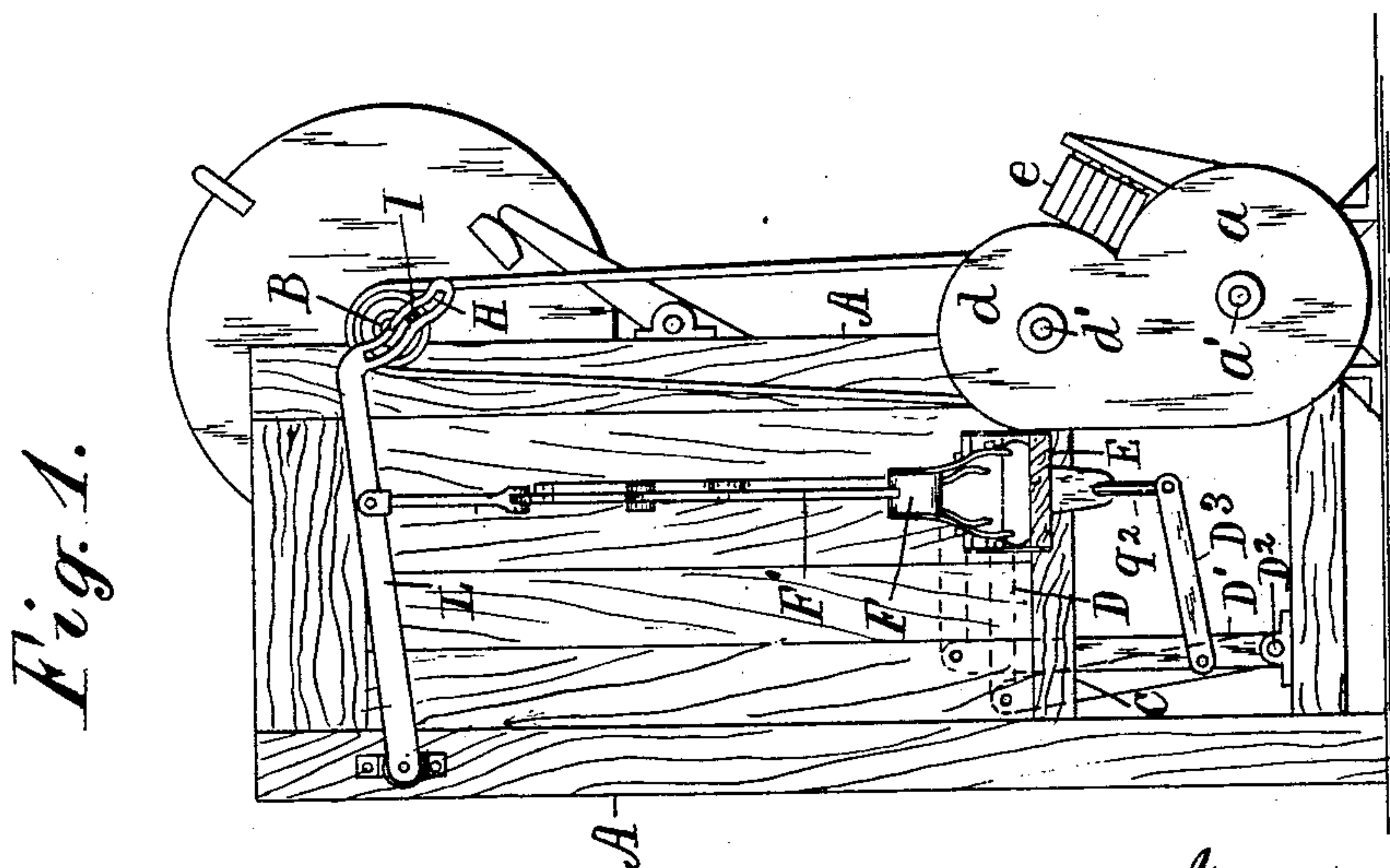
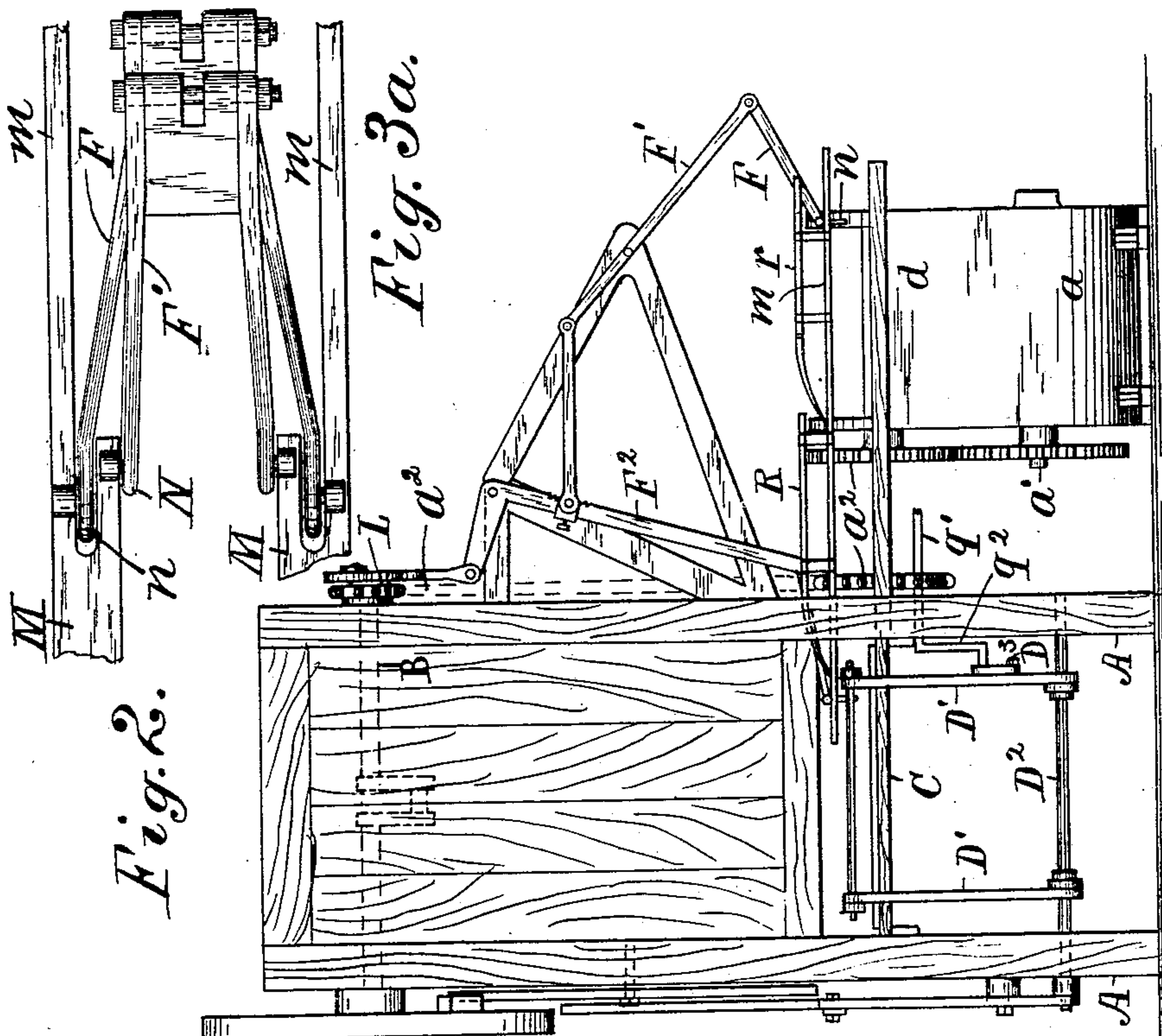
H. SCHOONMAKER.

SAFETY APPLIANCE FOR SANDING AND FEEDING BRICK MOLDS.

(Application filed Feb. 8, 1902.)

(No Model.)

4 Sheets—Sheet 1.



Attest:  
L. Lee.  
Walter H. Talmage.

Inventor.  
H. Schoonmaker, per  
Thomas S. Crane, Atty.

No. 702,824.

Patented June 17, 1902.

H. SCHOONMAKER.

SAFETY APPLIANCE FOR SANDING AND FEEDING BRICK MOLDS.

(Application filed Feb. 8, 1902.)

(No Model.)

4 Sheets—Sheet 2.

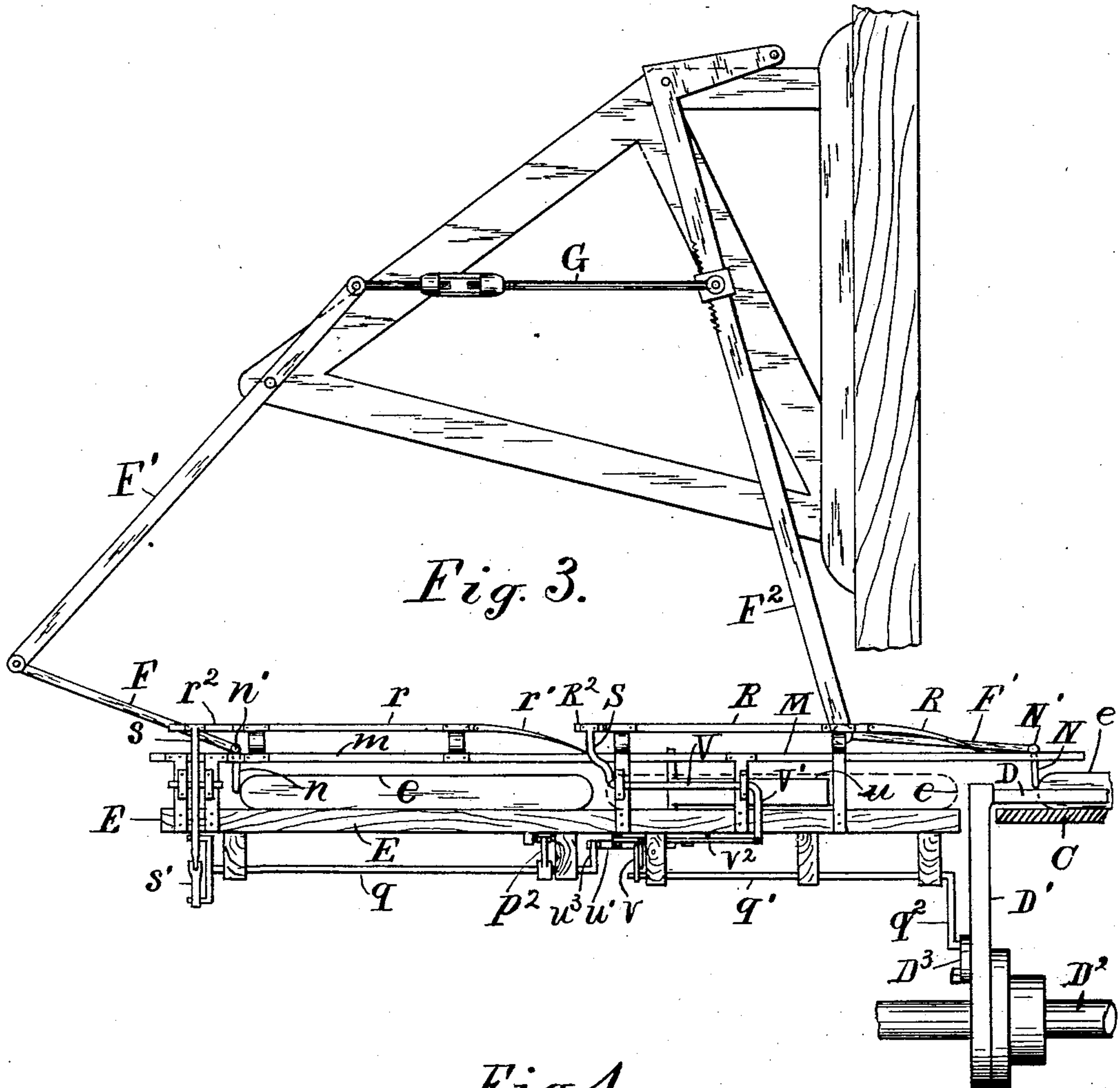


Fig. 3.

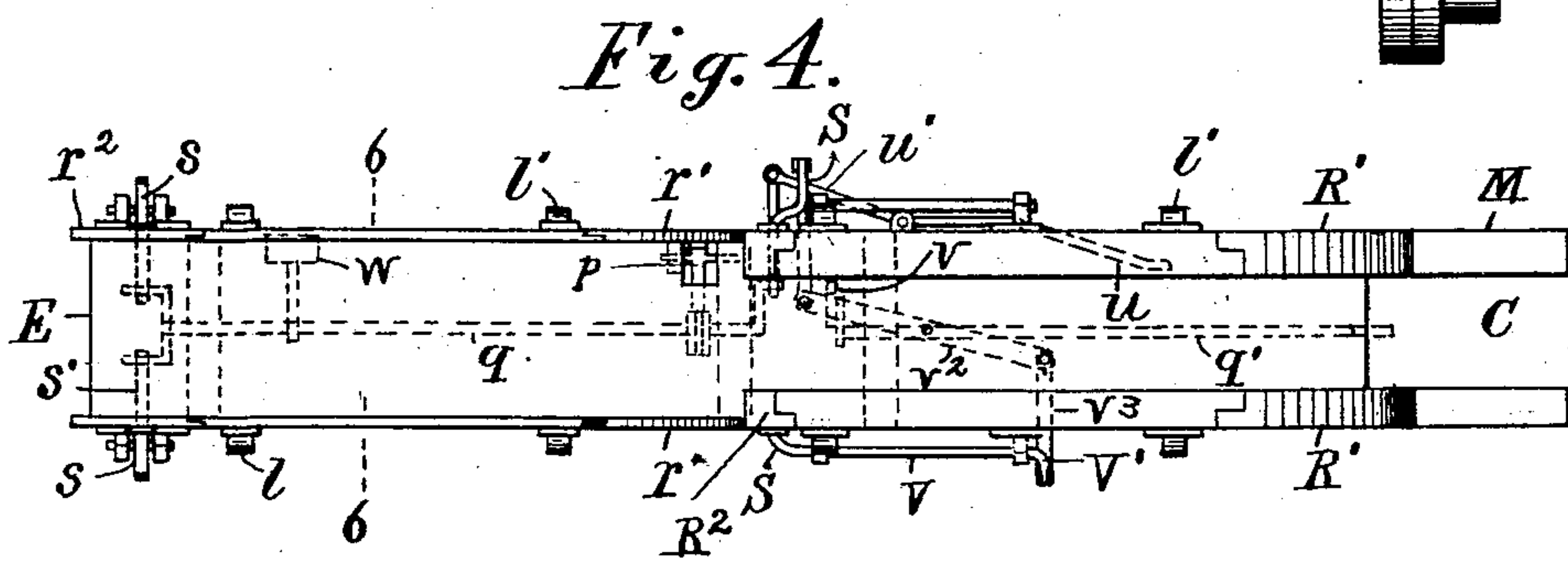


Fig. 4.

Attest:  
L. Lee,  
Walter H. Talmage.

Inventor.  
H. Schoonmaker, per  
Thomas S. Crane, atty.



No. 702,824.

Patented June 17, 1902.

H. SCHOONMAKER.

SAFETY APPLIANCE FOR SANDING AND FEEDING BRICK MOLDS.

(Application filed Feb. 8, 1902.)

(No Model.)

4 Sheets—Sheet 3.

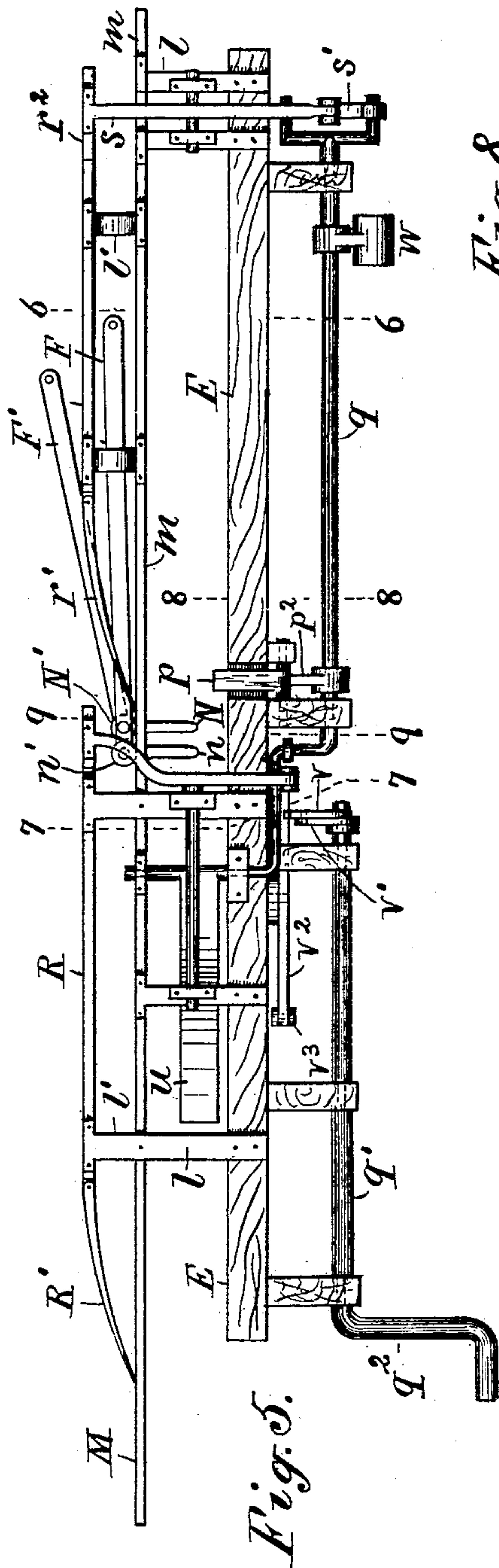


Fig. 5.

Fig. 8.

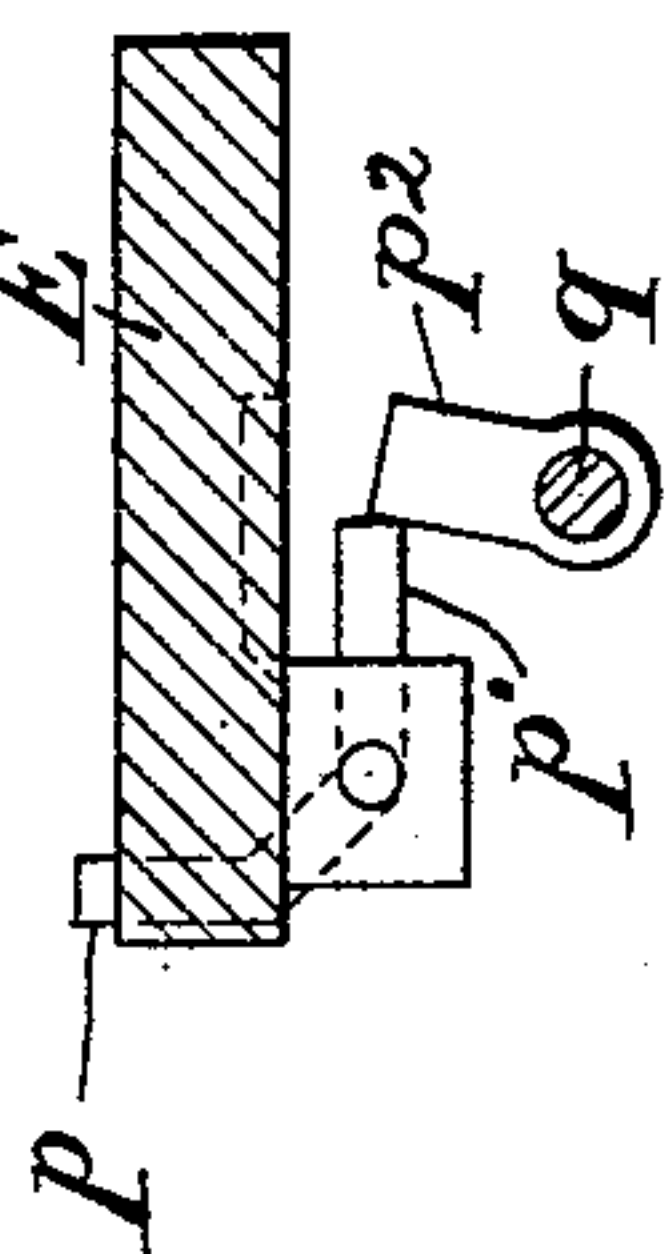


Fig. 9.

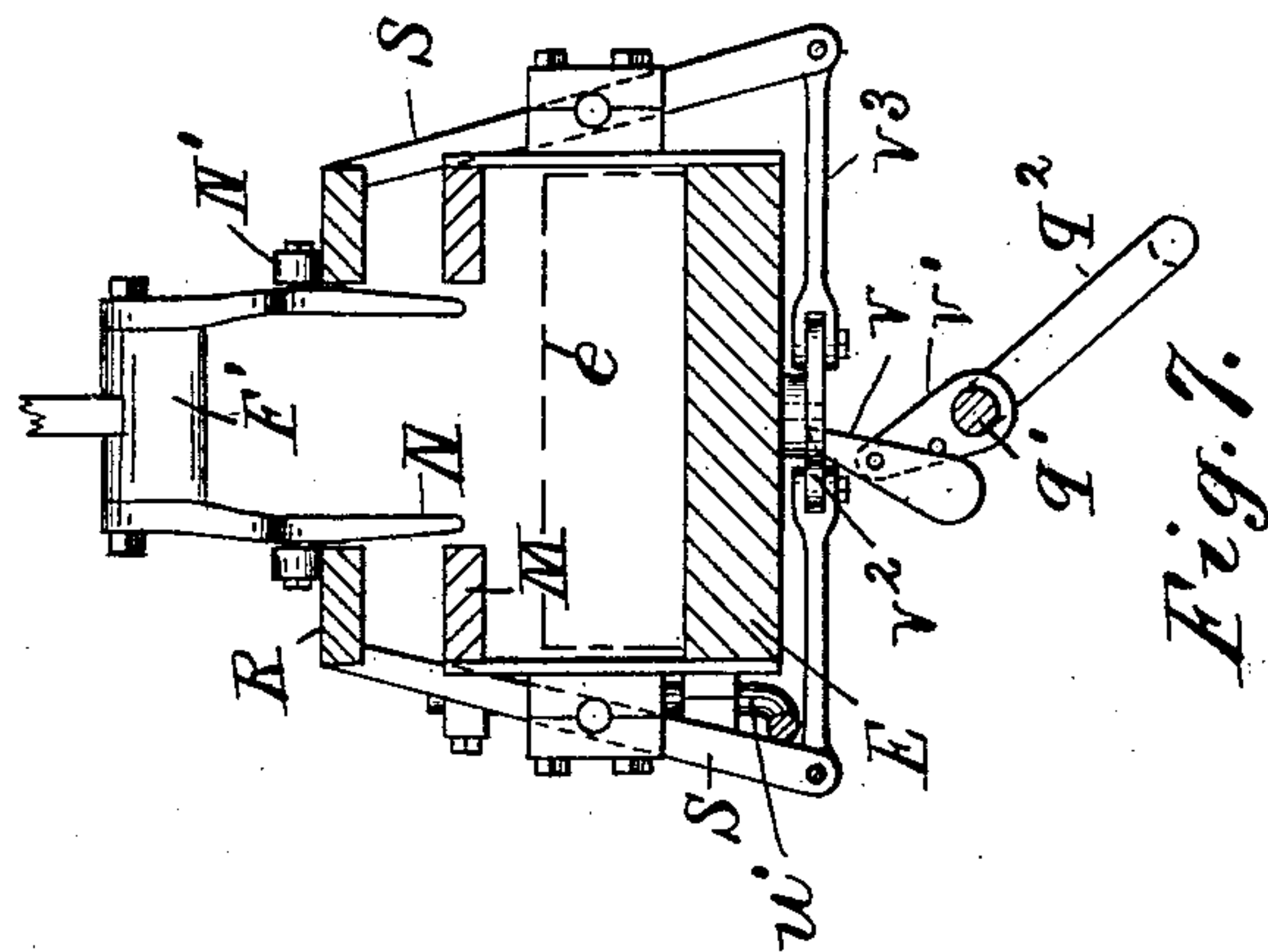
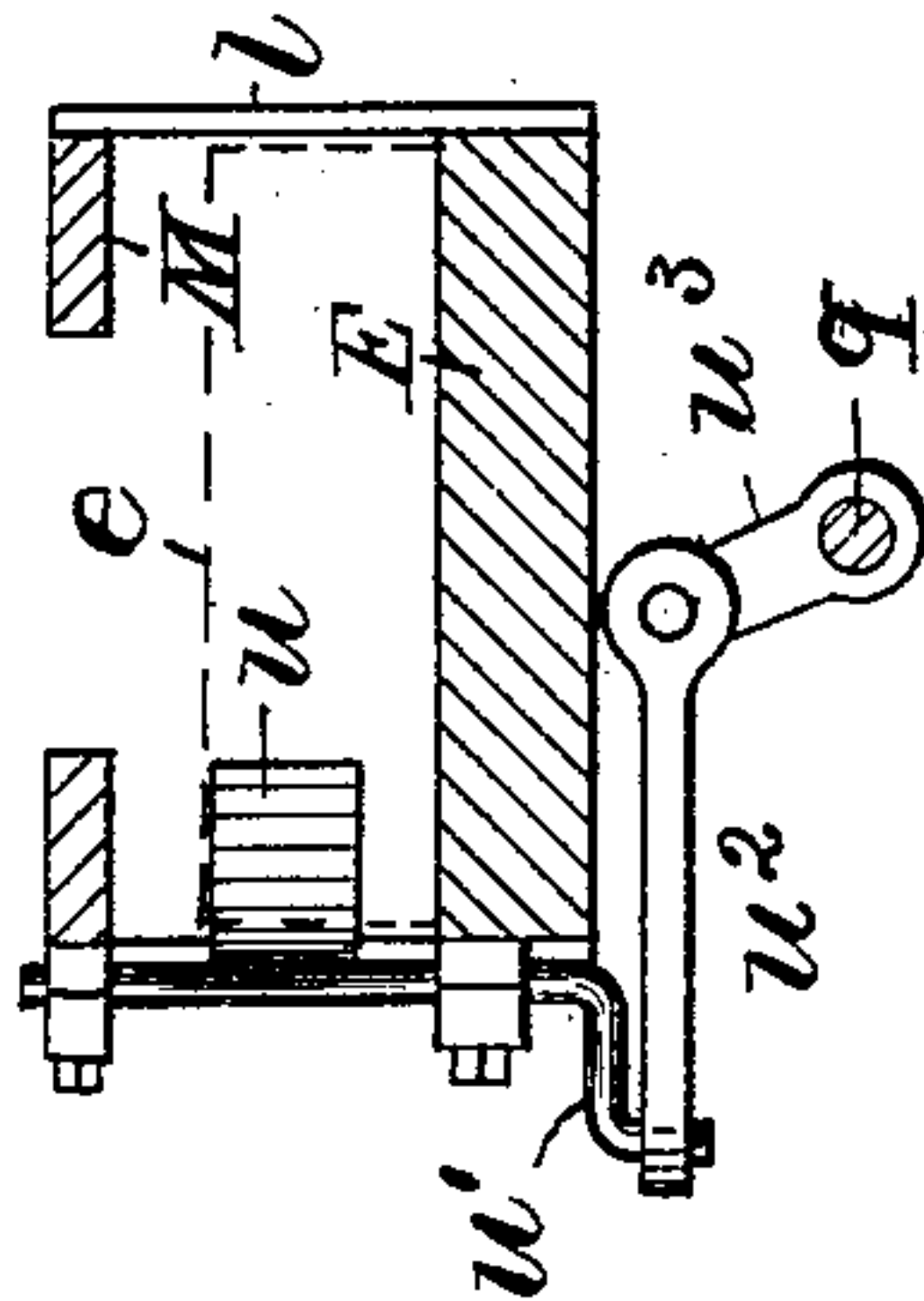


Fig. 7.

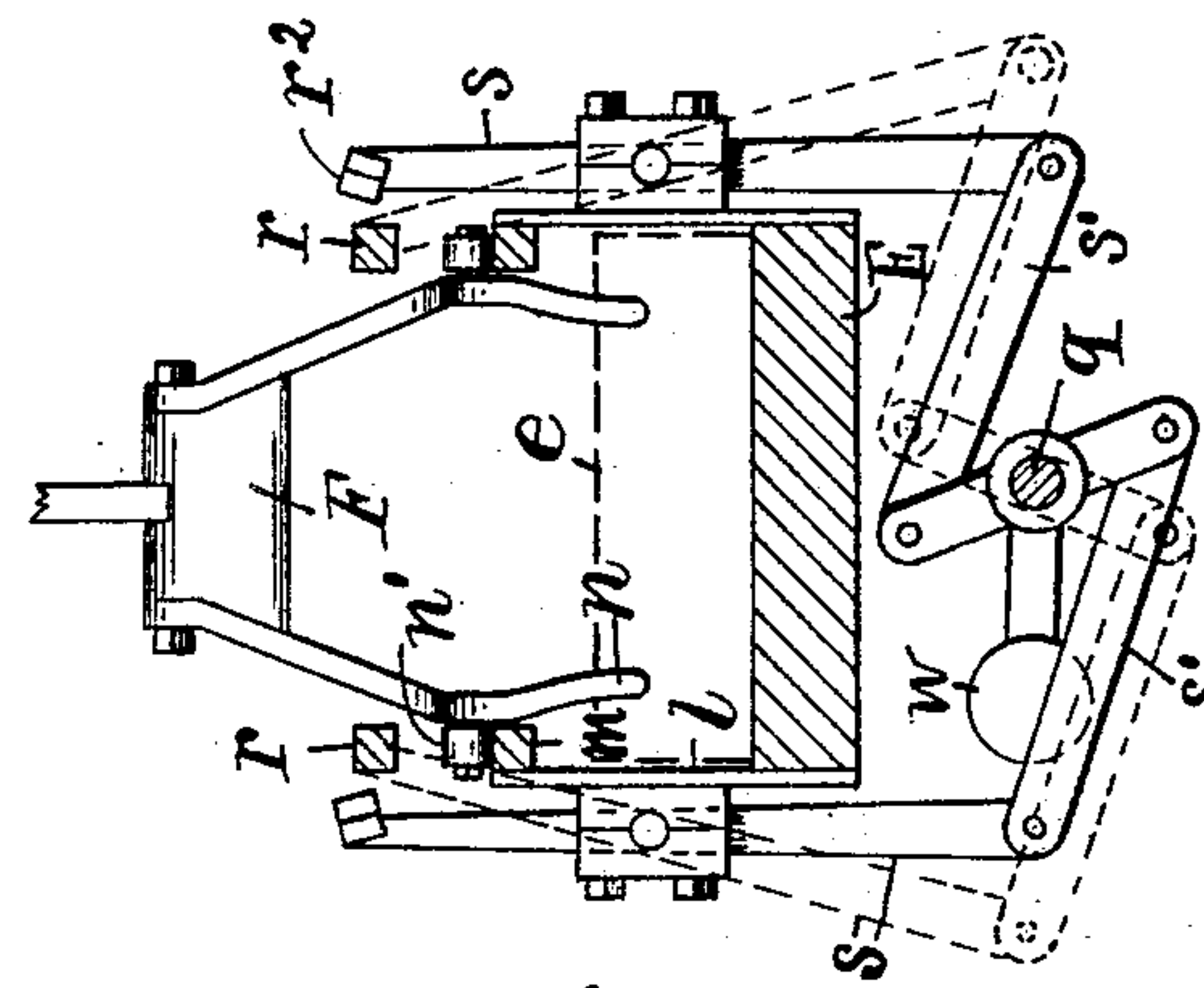


Fig. 6.

Attest:  
L. Lee.  
Walter H. Talmage.

Inventor.  
H. Schoonmaker, per  
Thomas S. Crane, Atty.

No. 702,824.

Patented June 17, 1902.

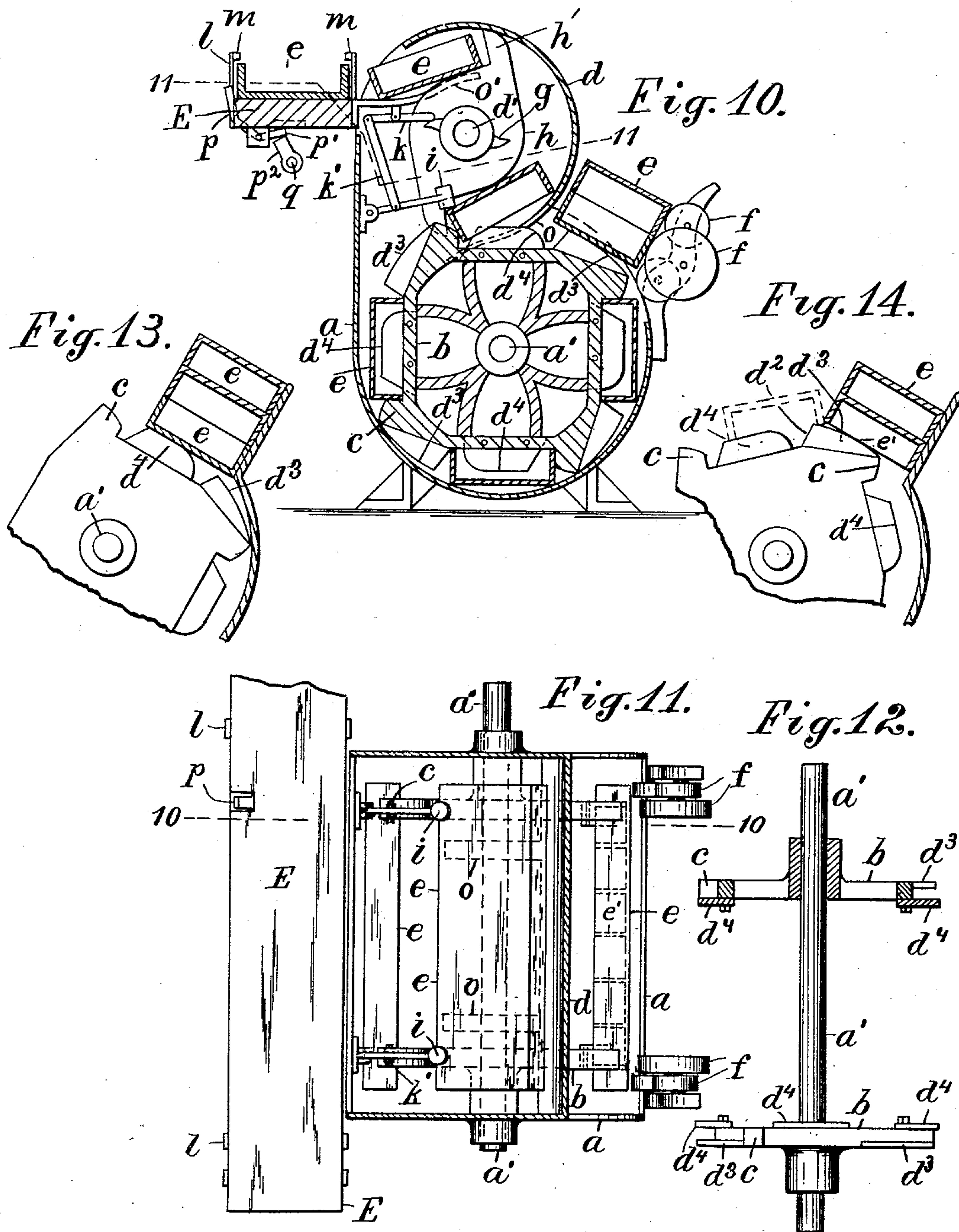
H. SCHOONMAKER.

SAFETY APPLIANCE FOR SANDING AND FEEDING BRICK MOLDS.

(Application filed Feb. 8, 1902.)

(No Model.)

4 Sheets—Sheet 4.



Attest:  
L. Lee,  
Walter H. Saluaga.

Inventor.  
H. Schoonmaker, per  
Thomas S. Crane, Atty.



# UNITED STATES PATENT OFFICE.

HERBERT SCHOONMAKER, OF ROSETON, NEW YORK.

SAFETY APPLIANCE FOR SANDING AND FEEDING BRICK-MOLDS.

SPECIFICATION forming part of Letters Patent No. 702,824, dated June 17, 1902.

Application filed February 8, 1902. Serial No. 93,129. (No model.)

*To all whom it may concern:*

Be it known that I, HERBERT SCHOONMAKER, a citizen of the United States, whose residence and post-office address is Roseton, Orange  
5 county, New York, have invented certain new and useful Improvements in Safety Appliances for Sanding and Feeding Brick-Molds, fully described and represented in the following specification and the accompanying drawings,  
10 forming a part of the same.

The present invention relates to means combined with the sanding-machine for removing the molds therefrom to a brick-machine or to any other required situation; and the in-  
15 vention comprises the combination, with the pusher for removing the molds, of safety appliances to prevent the engagement of the pusher with a succeeding mold until the preceding mold has been duly removed.

20 A patent has heretofore been granted to me on July 31, 1900, with No. 654,846, entitled "Brick-machine with sander attachment," in which I have shown a platform extending from the delivery-opening of the sander to the  
25 table of the brick-machine and a pusher operated automatically by connection with the brick-machine for shifting the molds to the brick-machine when delivered upon the platform by the sander. In the use of such ap-  
30 paratus it has been found that if the brick-machine mold-shifter should be arrested for any cause the mold transferred from the sander to the brick-machine would remain in sight and interfere with the movement of the  
35 succeeding mold, and thus lead to the breakage or derangement of the pushing appliances.

My present invention provides a safety-track or support to hold the pusher from en-  
40 gagement with the mold and means actuated by the mold when shifted upon the platform to operate such safety-track or support and prevent the engagement of the pusher with a succeeding mold until the preceding mold  
45 is removed.

The invention also includes means to prevent the operation of the pusher if the mold is not wholly delivered from the sander, means for diminishing the friction of the molds in  
50 their passage into the sander, and an automatic knocker in the reversing-cylinder of the

sander to knock the surplus sand from the molds.

These improvements will be understood by reference to the annexed drawings, in which— 55

Figure 1 is an end view of the sanding-machine with the brick-machine at the farther end of the same, only those parts of the brick-machine being shown which are necessarily connected with the sanding-machine. Fig. 60  
2 shows the rear side of the sanding-machine and the brick-machine with the devices for shifting the molds. Fig. 3 shows the front side of the devices for shifting the molds. Fig. 3<sup>a</sup> is a plan of the two pushers. Fig. 4 65  
is a plan of the platform and shifting devices. Fig. 5 shows the rear side of the platform and shifting devices upon an enlarged scale. Fig. 6 is a cross-section on line 6 6 in Fig. 5 looking toward the right. Fig. 7 is a cross-section 70  
on line 7 7 in Fig. 5 looking toward the left with the mold-dog and its connections omitted. Fig. 8 is a cross-section of the platform on line 8 8 in Fig. 5 looking toward the left. Fig. 9 is a cross-section on line 9 9 in 75  
Fig. 5 looking toward the left with the parts for breaking the safety-track omitted. Fig. 10 is a cross-section on line 10 10 in Fig. 11 with the sander-head and molds shown in section. Fig. 11 is a plan of the sander and 80  
platform in section on line 11 11 in Fig. 10. Fig. 12 is a plan of the sander shaft and heads, one of the heads being in section at the center line where hatched. Fig. 13 is a diagram showing the operation of the safety-ribs on 85  
the heads of the sander, and Fig. 14 is a diagram showing the operation of the guide-ribs on the heads.

A designates the posts of the brick-machine, carrying upon the front side the crank- 90  
shaft B to operate the press.

C designates the table or space in the machine to receive the mold from the sander, and D the usual shifter worked by connections from the crank-shaft B to transfer the 95  
molds to the shelf beneath the mold-filling devices.

A platform E is extended from the level of the table C sufficiently to receive the upright molds from the sanding-machine, which is 100  
shown constructed with a sanding-cylinder *a*, having a shaft *a'* geared to the crank-shaft B



by chain-and-spur gearing  $a^2$ , so as to revolve in unison therewith. The shaft  $a'$  carries heads  $b$ , having seats to receive and lugs  $c$  to propel the molds within the sanding-cylinder. The sanding-cylinder has an opening near the top at one side to receive the molds, and anti-friction-rolls  $f$  are arranged at opposite ends of the opening, forming a slightly-inclined guide, which supports the inverted molds, with their flanges resting upon the ribs of the heads  $b$ . The rolls are formed in overlapping series, as shown in Figs. 10 and 11, which brings their faces in a straight line to form a continuous guide, while permitting the employment of large rollers to reduce the friction. Each of the seats is provided with a projecting safety-rib  $d^4$ , which is adapted to enter one of the mold-pockets when the molds are applied inverted, as shown in Fig. 14, which position is necessary to make them receive the sand in their passage through the machine. If the molds are applied in an upright position, like the bottom mold of the three shown in Fig. 13, the safety-rib contacts with the bottom of the mold and prevents it from falling upon the seat. A guide-rib  $d^3$  is shown upon the outer edge of the head adjacent to each seat to contact with one of the partitions  $e'$  of the inverted mold when pressing toward the head, as shown in Fig. 14, which raises the mold to the top of the safety-rib  $d^4$  and permits the advanced edge of the mold to slide over the same, as indicated by the single mold shown on top of the ribs  $d^3$  and  $d^4$ , until the mold is ready to drop over the safety-rib into contact with the lug  $c$ , in which position three of the molds are shown in Fig. 10. The mold shown resting upon the guide-rib  $d^3$  and safety-rib  $d^4$  is shown without the partition  $e'$ , as the safety-rib  $d^4$  is arranged, as shown in Fig. 12, on a different line from the guide-rib  $d^3$ , so as to penetrate the mold between the partitions. A mold would never in practice occupy the position on top of the heads  $b$  shown by this mold, which rests upon the guide-rib and safety-rib as the heads  $b$  revolve toward the pile of molds which is supplied to the sander and carry them downward in succession, as shown in Fig. 10, as soon as they drop over and inclose the safety-rib  $d^4$ . Without the guide-rib  $d^3$  the molds would drop upon the back of the lug  $c$  and would become jammed against the forward edge of the safety-rib  $d^4$ . The end of the safety-rib next the lug  $c$  is inclined to permit the edge of the mold to slide gradually into contact with the lug  $c$ , and the end  $d^2$  of the guide-rib is so inclined as to permit the opposite edge of the mold to slide toward the seat at the same time. A reversing-cylinder  $d$  is fixed over an opening in the top of the sanding-cylinder, and the molds are transferred into the bottom of the cylinder  $d$  from the heads  $b$  by ways  $o$ , which constitute a delivery-chute. The cylinder  $d$  is provided with a shaft  $d'$ , having disks  $h$  with lugs  $h'$  to grasp the molds and deliver them to in-

clined strippers  $o'$ , which discharge them upon the platform E.

The shaft  $d'$  is provided near each end of the cylinder  $d$  with a cam  $g$ , which operates upon a tappet  $k$ , connected by a link  $k'$  with a hammer  $i$ , arranged to strike upon the bottom of the inverted mold in its movement over the ways  $o$ , as shown in Fig. 10. The disks  $h$  are provided each with two lugs to discharge two molds for each revolution, and the cams are provided each with two teeth to lift the hammer twice during such time, so as to strike a blow upon each of the molds near its opposite ends, and thus dislodge the surplus sand while the mold is inverted. The hammer is shown pivoted to the wall of the cylinder  $d$ , and the tappet  $k$  is shown pivoted to the strippers  $o'$ ; but the precise construction of the parts is immaterial, provided the hammers are arranged to strike the inverted mold and actuated by means upon the shaft  $d'$ .

The molds move by their momentum nearly across the platform to its opposite edge, as indicated upon the platform in Fig. 10. The guide or track  $m$  for the pusher  $n$  is supported by posts  $l$ . (Shown in Figs. 1 to 3 and in Fig. 6.)

A mold-dog  $p$  is pivoted near the outer edge of the platform and formed with a lug  $p'$  to contact with an arm  $p^2$  upon a rock-shaft  $q$  beneath the platform. Rails  $r$ , forming a safety-track, are supported by studs  $l'$  above the shifter-guide  $m$ , and removable sections  $r^2$  of such rails are mounted upon levers  $s$  and connected by links  $s'$  with the rock-shaft  $q$ . Similar studs  $l'$  support rails  $R$  above the track  $M$ , referred to hereinafter. A weight  $w$  upon a shaft operates normally, as shown in Fig. 6, to throw the sections  $r^2$  outward, and thus open the track. The forward ends of the safety-rails  $r$  are hinged to form jointed sections  $r'$ , the free ends of which rest upon the guide-rails  $m$  below. The pusher  $n$  is attached to the end of a bar  $F$ , which is hinged to the lower end of a swinging lever  $F'$ , and the pusher is provided with rolls or studs  $n'$ , adapted to rest upon the guide-rails  $m$  or safety-rails  $r$ , the tracks of such rails having the same gage, as shown in Fig. 6. The toe  $p'$ , Fig. 8, prevents the opening of the track unless the mold shifts the dog.

The pusher-lever  $F'$  is connected by a link  $G$  with a second pusher-lever  $F^2$ , adapted to push the mold from its second position to the table  $C$  of the brick-machine, as indicated by part of a mold  $e$ , (indicated at the extreme right-hand side of Fig. 3.) The levers  $F'$  and  $F^2$  are jointed, so as to operate in reverse directions, and are actuated by connections to a lever  $L$ , having a cam-slot  $H$  in the end to engage a crank-pin  $I$ , rotated with a crank-shaft  $B$  of the brick-machine. The pushers thus move synchronously with the brick-machine. The pusher  $N$  in propelling the mold toward the brick-machine advances the mold from its first position (shown in full lines in Fig. 3 to) its second position, (shown in dotted



lines  $e$ ,) and the rolls  $n'$  move normally upon the guide-rails  $m$  during such operation. Such forward movement of the pusher carries the rolls  $n'$  beyond the ends of the jointed rail-sections  $r'$ , so that upon the backward movement of the pusher the rails mount upon the track  $r$  and reciprocate thereafter upon such rails unless the sections  $r^2$  be separated, which permits the rails to drop upon the guide-rails  $m$ . So long as the rolls travel upon the safety-rails  $r$  the pusher is held above the top of the mold and reciprocates without pushing the same, and any attachment of the machine which keeps the track closed operates for the time being to suspend or prevent the operation of the pusher. Several such attachments are shown herein, one of them being the mold-dog  $p$ , which holds the rails normally closed until it is pushed out of the way by a mold as it is delivered from the sander. Another is the toe  $u$ , (shown in Figs. 3, 4, 5, and 9,) which operates directly when the mold is moved to its second position to close the safety-track and prevent the operation of the pusher, and another is a trip  $v$ , actuated by a connection with the shifter  $D$  of the brick-machine. The toe  $u$  is pivoted by the side of the platform  $E$  near the second position of the mold, (indicated by the dotted lines  $e$  in Fig. 3,) and its hinge, as shown in Fig. 4, is provided with an arm  $u'$ , connected, as shown in Fig. 9, by a link  $u^2$  to a crank  $u^3$  upon the rock-shaft  $q$ .

The toe  $u$  is shown in Fig. 4 projecting into the path of the mold, and when thrust outwardly by the presence of a mold it operates by turning the shaft  $q$  to lift the weight  $w$  and through the agency of the levers  $s$  throw the movable rail-sections  $r^2$  into line with the rails  $r$ . This holds the rolls of the pusher  $n$  above the guide-rails  $m$  and prevents the pusher from shifting a mold from the first to the second position until the mold in the second position is removed from its contact with the toe  $u$ .

The two pushers are used because a reciprocating agency is the easiest to operate in unison with the brick-machine through its crank-shaft, but cannot be readily made to give so long a stroke as would be required to push the mold by a single movement from the sander to the brick-machine. Furthermore, the use of an intermediate pusher permits the introduction of an intermediate safety device, which secures the stoppage of the pusher effectively if the molds are from any cause obstructed in their movement. The bar  $F$ , carrying the pusher  $n$ , is forked, as shown in Fig. 6, so that the pusher has a finger depending from the roll  $n'$  within each of the rails  $m$  or  $r$ , and the second pusher  $N$ , attached to the pusher-lever  $F^2$ , is similarly constructed, but is narrower, and its track-rails  $M$  and  $R$  are of narrower gage, which adapts the fingers of the second pusher to move within the fingers of the first pusher. Such movement occurs when the mold is

moved wholly from the first to the second position, as is indicated by the lines  $e$  in Fig. 3, the pushers  $n$  and  $N$  being engaged with such, the primary pusher  $n$  being ready to retract from the mold, while the second pusher  $N$  is about to carry it forward to the third position.

The guide-rails  $M$  and the safety-rails  $R$  for the second pusher are of narrower gage, and the loose rail-sections  $R^2$  are carried by levers  $S$ , which for the second pusher are actuated by a direct connection with the arms  $D'$ , which move the shifter  $D$  in the brick-machine. Fig. 1 shows one of such arms connected by a link  $D^3$  and crank  $q^2$  with a crank-shaft  $q'$  beneath the track of the second pusher, and such rock-shaft is connected by a pawl  $v$  with mechanism for opening the rails  $R$  at each actuation of the brick-machine shifter  $D$ . Such means (shown in Figs. 3, 4, 5, and 7) consists of a lever  $v^2$  and links  $v^3$ , arranged below the platform  $E$ , with the links attached to the bottoms of the levers  $S$ . One of the levers  $S$  is connected with the lever marked  $v^2$  by a rock-shaft  $V$ , carrying a crank-arm  $V'$ , which arrangement is required as one of the levers  $S$  connects with the nearer end of the lever marked  $v^2$  while the other lever  $S$  connects through the rock-shaft  $V$  with the farther end of the same lever  $v^2$ . The removable rail-sections  $R^2$  are closed by the contact of the arm  $u'$  with the inside of one of the levers  $S$  (see Fig. 7) whenever the toe  $u$  is thrown inwardly by the weight  $w$ , and thus normally prevent the second pusher from operating, except as they are opened by connection with the brick-machine shifter  $D$ . The pawl  $v$  is jointed upon an arm  $v'$  on the shaft  $q'$  and operates to engage one edge of the lever  $v^2$  at each oscillation of the arm  $v'$ , but on its reverse movement tips upon its hinge and slips past the lever. These connections operate to separate the rail-sections  $R^2$  just as the rolls  $N'$  of the pusher  $N$  reach their rear position, (shown in Fig. 5,) and thus permit the pusher  $N$  to drop to the guide-rails  $M$  and push the mold from its second position to the table  $C$ .

If for any cause the shifter  $D$  of the brick-machine fails to operate and the mold last deposited upon the table is not shifted therefrom, then the rock-shaft  $q'$  would also cease its movements and the track  $R$  would remain closed and prevent the actuation of the second pusher. The pawl  $v$  forms a detachable connection between the shifter-lever  $D'$  and the rail-sections  $R'$ , thus making the rails independent of the shifter when the pawl is not in operation, which permits the rails to be held normally closed except at such times.

The control of the rail-sections  $R^2$  is different from that of the rail-sections  $r^2$ , as the latter sections are opened by the pressure of a mold upon the dog  $p$  or toe  $u$ ; but the rail-sections  $R^2$  are not opened by the presence or operation of a mold, but by the agency of the pawl  $v$ , which is actuated regularly by the normal movements of the parts which re-



ciprocate the shifter D in the brick-machine. So long as the molds are removed from the brick-machine the shifter D and its arms D' make their regular movements, and the pawl *v* is thus operated intermittingly (regardless of the presence of any mold) to open the rail-sections R<sup>2</sup>. So long as the shifter makes its normal movement the molds are moved from the table to be filled with clay and discharged; but if the shifter itself breaks down or the molds are obstructed, so as to break the shifter, then the pawl *v* fails to operate and the second pusher is prevented from advancing another mold to the brick-machine table. The weight *w* serves directly to hold the rail-sections *r*<sup>2</sup> open or separated from the rails *r*, and it operates indirectly to hold the rail-sections R<sup>2</sup> closed, as the weight is directly connected (through the medium of the shaft *q*, the crank *w*<sup>3</sup>, and the link *u*<sup>2</sup>) with the arm *u'*, which, as shown in Fig. 7, is pressed outwardly by the operation of the weight into contact with the lower end of one of the levers S. The arm *u'* is shown in Fig. 4 lying inside the lower end of the lever S, and thus adapted to contact with it, as shown in Fig. 7, when thrown outwardly by the falling of the weight. In Fig. 7 the arm *u'* is cut in section at the line of the lever S or at one side of that lever, as it appears in Fig. 4, thus showing the contact of the arm with the lever which throws inward the tops of both the levers (bearing the rail-sections R<sup>2</sup>) through their connection with the lever *v*<sup>3</sup> and links *v*<sup>3</sup>. The means for connecting the removable rail-sections with the toes may obviously be modified in any desired manner without departing from my invention.

From the above description it will be seen that the safety appliances provide for the contingencies which are liable to arise in operating a sanding-machine as an attachment to a brick-making machine and pushing the molds by a direct connection with the brick-machine. To deliver the molds to the brick-machine, as required, the sander must be thus operated; but the pushing appliances would obviously be broken if the molds are obstructed in their movements.

The invention includes means which operate in each of the three positions of the mold to regulate the movement of the pushing appliances. Thus the mold-dog *p* operates, in conjunction with the mold, to prevent the pusher from grasping the mold unless it is delivered centrally upon the platform, so as to advance endwise without obstruction.

If the mold is delivered by the sanding-machine only a part of the way upon the platform, it would be improper to push it forward, as it would contact with the posts *l*, and to prevent the rail-sections *r*<sup>2</sup> from opening and admitting the pusher to contact with the mold when in such a position the mold-dog *p* is placed at the farther edge of the platform, so that it can only be operated when the mold is delivered in a proper position. If the mold

is thrust all the way across the platform, as intended and as shown in Fig. 10, the mold-dog is pushed outwardly and the obstacle is withdrawn to the fall of the weight *w*, which then opens the track and permits the pusher to operate. The toe *u* operates in like manner to keep the track *r* closed until the mold is moved from its second position by the second pusher. The sections R<sup>2</sup> also control the movement of the second pusher N and prevent it from engaging the mold in the second position if the shifter D fails to operate and remove the preceding mold from the brick-machine table.

It is immaterial to my invention how the pusher is prevented from engaging the mold, and although I have illustrated a safety-track arranged over guide-rails I do not limit myself exclusively to such means for preventing the engagement of the pusher with the molds.

The essential feature of my invention is a pusher movable along the platform, and means actuated by the mold when shifted upon the platform to prevent the engagement of the pusher with the mold.

Having thus set forth the nature of the invention, what is claimed herein is—

1. The combination, with a sanding-machine having a platform and means for automatically delivering the sanded molds there-to, of a pusher movable along the platform to shift the molds thereon, and means actuated by the mold when shifted upon the platform to prevent the engagement of the pusher with a succeeding mold until the preceding mold is removed.

2. The combination, with a sanding-machine having a platform and means for automatically delivering the sanded molds there-to, of a pusher for shifting the molds upon the platform, a pusher guide or track for sustaining the pusher in an operative position adjacent to the platform, a safety-track adjacent to the pusher-guide, the safety-track having a removable section at its rear end as set forth, and means actuated by the mold when shifted upon the platform for holding the track closed by such section and preventing the access of the pusher to a succeeding mold upon the platform, until the preceding mold is wholly removed from the platform.

3. The combination, with a sanding-machine having a platform and means for automatically delivering the sanded molds there-to, of a pusher for shifting the molds upon the platform, a pusher guide or track for sustaining the pusher in an operative position adjacent to the platform, a safety-track adjacent to the pusher-guide, the safety-track having a removable section at its rear end as set forth, a lever or toe projected in the path of the mold when shifted and connections from such lever to the removable track-section, to hold the track closed until the shifted mold is wholly removed.

4. The combination, with a sanding-ma-



chine having a delivery-chute and a platform extended therefrom to hold two or more of the molds, of a primary pusher to shift the molds successively to the adjoining portion of the platform when delivered from the chute, a secondary pusher connected thereto for pushing the molds off of the platform, a safety track or support to hold the primary pusher from engagement with the mold, and means actuated by each mold to prevent the engagement of the primary pusher with the molds, until the secondary pusher has removed them from the platform.

5. The combination, with a sanding-machine having a delivery-chute and a platform extended therefrom to hold two or more of the molds, of a primary pusher to shift the molds successively to the adjoining portion of the platform when delivered from the chute, a secondary pusher to shift the molds from the platform, a pusher guide or track for sustaining the primary pusher in an operative position adjacent to the platform, a safety-track adjacent to the pusher-guide, the safety-track having a removable section at its rear end as set forth, means to hold such section normally open, and a lever projected in the path of the mold when shifted by the primary pusher, and having connections to the removable track-section and operating to hold the track closed until the secondary pusher removes such mold.

6. The combination, with a sanding-machine having a platform and means for automatically delivering the sanded molds there-to, of a pusher for shifting the molds upon the platform, a pusher guide or track for sustaining the pusher in an operative position adjacent to the platform, a safety-track adjacent to the pusher-guide, the safety-track having a removable section at its rear end as set forth, means for holding such section normally open, and the toe projected in the path of the mold when wholly discharged upon the platform from the sanding-machine, and connections between such toe and the removable track-section to open the same, when the toe is moved.

7. The combination, with a brick-machine having a table to receive the molds for filling, of a platform extending from such table, a sanding-machine with devices for delivering the sanded molds upon such platform, a pusher reciprocated by connection with the brick-machine to shift the molds from the platform to the table, and means actuated by the molds in their transit to the table for preventing the access of the pusher to a succeeding mold upon the platform, until the preceding mold is removed from the table.

8. The combination, with a brick-machine having a table to receive the molds for filling, and the shifter D to shift the molds thereon, of a platform extending from such table, a sanding-machine with devices for delivering

the sanded molds upon such platform, a pusher reciprocated by connection with the brick-machine to shift the molds from the platform to the table, a pusher guide or track for sustaining the pusher in an operative position adjacent to the platform, a safety-track adjacent to the pusher-guide, the safety-track having a removable section at its rear end as set forth, and means connected with the mold-shifter D upon the table for closing the track by such section and preventing the access of the pusher to a succeeding mold upon the platform, until the preceding mold is removed from the table.

9. In a brick-mold-sanding machine, the combination, with a sanding-cylinder having rotary heads to move the mold therein, and having opening at the side to insert the molds, of antifriction-rolls arranged at opposite ends of the opening to support the molds, and the rolls at each end being formed in an overlapping series to furnish a nearly continuous support, substantially as herein set forth.

10. In a brick-mold-sanding machine, the combination, with a sanding-cylinder having a central driving-shaft *a'*, of heads *b* to move the molds in the cylinder, the heads having seats for the molds with a driving-lug *c* at one end of each seat, and a curved guide-rib *d*<sup>3</sup> adjacent to the opposite end of each seat to support the molds and deliver them gradually to the seat.

11. In a brick-mold-sanding machine, the combination, with a sanding-cylinder having a central driving-shaft *a'*, of heads *b* to move the molds in the cylinder, the heads having seats for the molds with a driving-lug *c* at one end of each seat, and a safety-rib *d*<sup>4</sup> upon each seat adapted to enter the inverted molds and to prevent non-inverted molds from access to the seats.

12. In a brick-mold-sanding machine, a sanding-cylinder having rotary heads to move the molds therein and having an opening in the side to insert the molds, and an opening in the top to discharge the same, a reversing-cylinder mounted over the opening in the top of the sanding-cylinder with discharge-outlet upon one side, ways adapted to transfer the molds from the rotary heads into the bottom of the reversing-cylinder, the rotary disks in such cylinder with projections adapted to carry the molds around within the same and deliver them right side up to the discharge-opening, and a hammer within the reversing-cylinder actuated by a cam upon the disk shaft to strike the bottom of each mold in its transit to the reversing-cylinder.

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

HERBERT SCHOONMAKER.

Witnesses:

W. H. VAN STEMBROGH,  
THOMAS S. CRANE.