D. PETRI-PALMEDO.

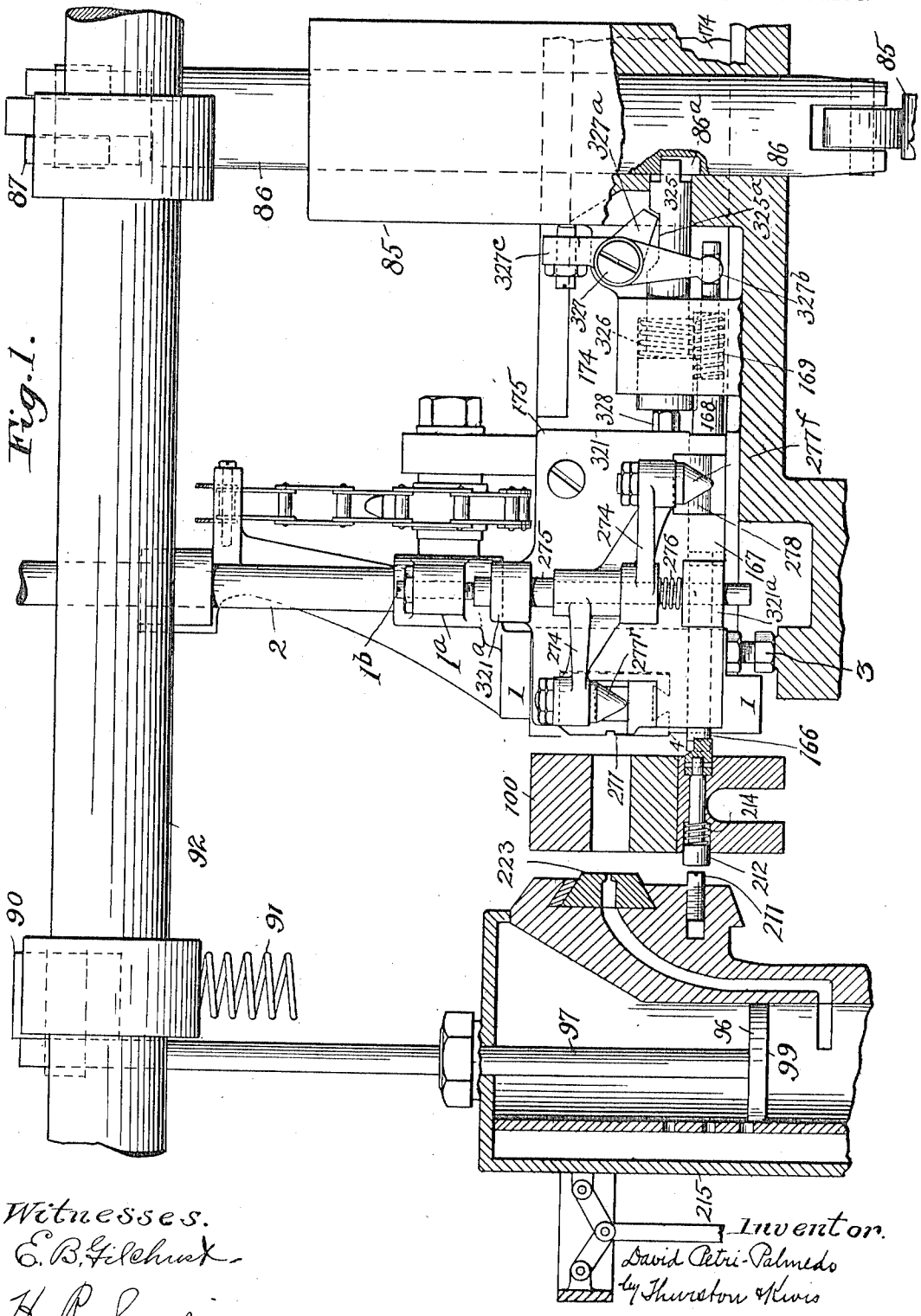
SQUIRT PREVENTER MECHANISM FOR LINOTYPE MACHINES.

APPLICATION FILED DEC. 23, 1911.

1,073,705. Patented Sept. 23, 1913.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses.

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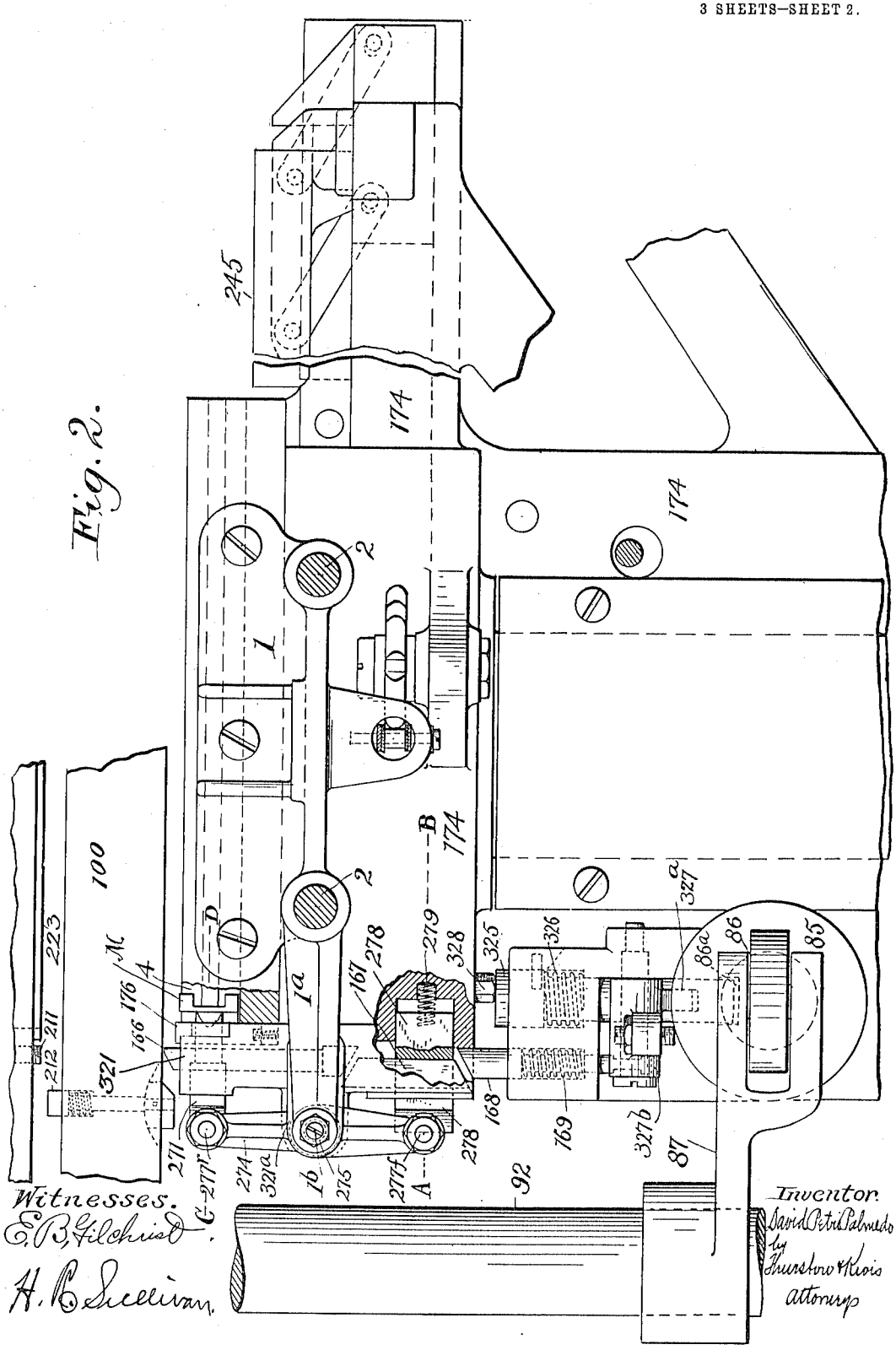
3 SHEETS—SHEET 2.

Fig. 2.



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3 SHEETS—SHEET 3.

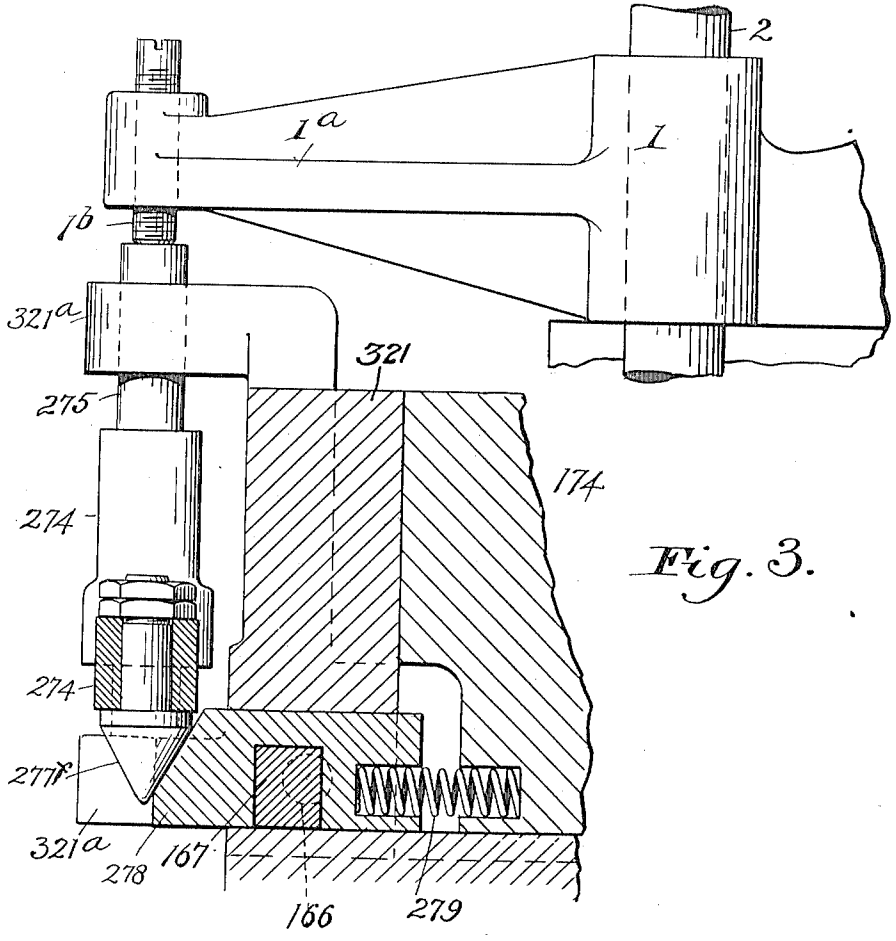

Fig. 3.

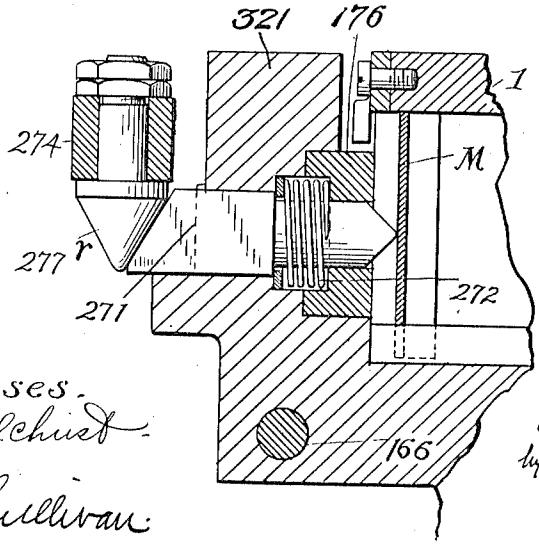

Fig. 4.

Witnesses.
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UNITED STATES PATENT OFFICE.

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SQUIRT-PREVENTER MECHANISM FOR LINOTYPE-MACHINES.

1,073,705. Specification of Letters Patent. Patented Sept. 23, 1913.

Application filed December 23, 1911. Serial No. 667,451.

To all whom it may concern:

Be it known that I, DAVID PETRI-PALMEDO, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a certain new and useful Improvement in Squirt-Preventer Mechanism for Linotype-Machines, of which the following is a full, clear, and exact description.

The object of this invention is to prevent the discharge of molten metal from the pot nozzle of a linotype machine until all of the parts which are concerned in the casting of a linotype have been properly positioned relative to each other.

The parts concerned in the casting operation in every linotype machine include the movable mold, the pot nozzle, and a line of compacted matrices. In some machines, as, for example, the machine with which the present invention, in the particular form shown, is especially adapted for use, the compacted matrix line is supported during the casting operation on a vertically movable elevator, by which, after the linotype has been cast, the matrix line is carried up and delivered to the distributing mechanism. The mold must be movable from the casting position to the ejecting position, and vice versa. There must be relative movement between the mold and pot nozzle, so that these two may be caused to move into and out of contact. The matrix line must be moved into proper position in front of the mold, and the matrices must be tightly clamped together, and there must be relative movement as between this clamped matrix line and the mold, so that these two may be moved into and out of contact.

The invention is shown associated with a mold, which, in construction and direction of movement, is substantially like the mold which is shown and described in Patent No. 932,834, said mold being movable horizontally back and forth between the casting and ejecting positions. The same mold operating mechanism shown in said patent may be employed. It is to be understood, however, that the invention is not necessarily limited to a mold having this precise construction for moving in this precise path, or having this precise mechanism for moving it.

The invention is also shown in association with the melting pot and pot nozzle, which are movable toward and away from the mold; and also in association with a vertically movable elevator on which the matrix line is clamped during the casting operation, which elevator is also movable with the clamped matrix line to carry said line into and out of contact with the mold. The pot nozzle and elevator may be constructed substantially as shown in Patent No. 791,747, and may be associated with mechanism like that shown in said patent for imparting to them the described movements.

In machines having the precise construction shown and, in fact, in all linotype machines, there will be mechanism, which is set in motion by the operator through the depression of a line key, for moving the matrix line into proper position in front of the mold for clamping it, for imparting to the mold, pot nozzle and clamped line the required relative movements which carry them into contact, and these mechanisms are so timed that they may perform their functions before the metal pump piston is allowed to operate in the metal discharging direction. These mechanisms in some form or another are to be found in all linotype machines, and are not parts of this invention. But, if some one or more of these mechanisms shall fail to properly perform its function, the metal pump would in due course operate, and the molten metal would be discharged from the pot nozzle, and some or all of this molten metal would be squirted elsewhere than into the mold slot with very disastrous results. It is to prevent this action that the present invention is designed. This invention consists in employing a supplemental device for restraining the metal injecting movement of the pump piston, and means which are rendered operative and are caused to operate by the various parts which are concerned in the casting operation as said parts assume the required relative positions.

The invention as defined by the appended claims includes various combinations of

parts which contribute to the production of the stated result.

In the drawing, Figure 1 is a side elevation partly sectioned of so much of a linotype machine as is necessary to disclose the present invention, Fig. 2 is a plan view of the mechanism shown in Fig. 1. Fig. 3 is an enlarged vertical sectional view in the plane indicated by line A—B on Fig. 2. Fig. 4 is an enlarged vertical sectional view in the plane indicated by line C—D on Fig. 2.

Referring to the parts by letters, 1 represents a vertically movable elevator which has a shelf 4 onto which a line of matrices is moved preparatory to the casting operation. The matrix line is moved onto this shelf when the elevator is down; and while its left end is adjacent to a relatively fixed abutment against which the left end matrix M of a matrix line is forced by a movable end clamp 245 which engages with the right end matrix of said line.

The elevator is movable vertically by suitable mechanism on vertical guide rods 2, 2. The lower ends of these rods are secured to a squeeze slide 174 which is movable horizontally forward and backward toward and from the mold 100. The elevator has adjustable feet 3 which when the elevator is down slidably rests on the main frame; but since the elevator embraces the guide rods, it must move with the squeeze slide. The part against which the matrix line is pressed is an abutment piece 176 which is set into the face of a bracket 321, the latter being fixed to the squeeze slide. The melting pot 215 and its nozzle 223 may be supported and moved horizontally forward and backward toward and from said mold, as may also be the squeeze slide by substantially the means for these purposes which are shown and described in Patent No. 791,747. The mold 100 may be substantially like the mold shown and described in the prior Patent No. 982,834; and it may be moved horizontally to the right into the casting position between the pot nozzle and elevator, and then away from that position to the left to the ejecting position by substantially the mechanism shown and described in that patent.

The metal pump cylinder 99 is in the melting pot, and is suitably connected with the nozzle 223. The pump piston 96 has a rod 97 whose upper end has an operative connection with an arm 90 which is fixed to a rock shaft 92; and a spring 91 acting on said rock shaft furnishes the power to move the pump piston in the metal discharging direction. This rock shaft 92 has also an arm 87 which rests upon the top of a vertically movable plunger 86, and the lower end of this plunger normally rests on the face of a rotatable cam 85, by which it and the pump piston are restrained from being moved by the spring 91 referred to. All of the parts above mentioned, and suitable mechanism for imparting to them the described movements are old; and are parts of the particular linotype machine with which the present invention, in the form shown, is intended to be employed.

The present invention involves the use in association with some such mechanism as above described of a supplemental device which is employed to prevent the metal ejecting movement of the pump piston, even though the part, as cam 85, which usually restrains the movement, be withdrawn.

The principal element of the supplemental device is the squirt preventer slide 325, whose front end normally projects into a notch 86[a] in the plunger 86 and thereby prevents the descent of said plunger. This squirt preventer slide is movable horizontally and endwise in a guideway in a fixed part of the machine frame, and is under the influence of a spring 326 tending to move it rearward and thereby withdraw its front end from the notch 86[a]. Under normal conditions, however, the head of an adjustable screw 328 which is carried by the squeeze slide 174 engages the rear end of the squirt preventer slide, and holds the latter in its forward position, where, as stated, it restrains the descent of the plunger 86.

Adjacent to the squirt preventer slide 325 and mounted in fixed bearings is a rock shaft 327 to which three arms are secured. One of these arms 327[a] serves as a pawl which enters a notch 325[a] in the squirt preventer slide 325, and thereby prevents the spring-actuated rearward movement thereof. Another arm 327[b] is forked and engages in notches in a slide 168 which is movable endwise forward and backward in a horizontal guideway in a fixed part of the machine frame. This slide is under the influence of a spring 169 tending to move it rearward, which rearward movement, by acting upon arm 327[b] so rocks the rock shaft 327 as to carry the arm 327[a] thereon into the notch 325[a], where, as stated, it restrains the rearward movement of the squirt preventer slide 325. The third arm 237[c] is a stop arm which, by engaging with a fixture limits the rocking of said lever.

A vertical shaft 275 is mounted in brackets 321[a] on the left side of the line stop bracket 321, which, it will be remembered, is fixed to the squeeze slide. A two arm lever 274 is fixed to this shaft between the said bearing brackets; and a spring 276 embracing this shaft and thrusting endwise against the lower bearing bracket and against the middle part of the lever 274, acts to move said shaft and attached lever upward until further upward movement is prevented by the engagement of the central part of said lever with the upper bearing bracket 321[a].

The top of this shaft 275 is in such position that when the elevator 1 descends an arm 1^a thereon, or rather a set screw 1^b, in said arm, will engage this shaft; and, as the elevator settles down to the position in which it should come to rest, it will move this shaft endwise downward. In the rearwardly extended arm of this lever is a vertical stud 274^r having a conical lower end. In the line stop bracket 321 is a slide 271 which is movable horizontally to right and left. Its right end projects through the line stop bracket in a position where it may overhang the elevator shelf 4 and be in the path of the left end matrix M of a matrix line which is being pushed along said elevator shelf toward the line stop bracket. The left end of this slide 271 is inclined at an angle corresponding to the inclination of the conical end of the stud 277^r, and will engage the same when lever 274 has been pushed down. The other arm of the lever 274 has in its end a vertical stud 277^t, whose lower end is conical. Mounted in a forward extension of the line stop bracket 321 is a slide 278 which is movable horizontally to right and left. Its left end is inclined to correspond with the inclination conical lower end of the stud 277^t, and will be engaged thereby when the lever 274 has been pushed down. The slide 278 carries a forwardly and backwardly movable slide 167, the ends of which are inclined in opposite directions, as shown, said inclination being such that the slide 167 is longest along its left edge. This slide 167 lies and moves in substantially the same horizontal plane as does the slide 168, whose rear end is inclined in the reverse direction, so as to be substantially parallel with the adjacent front end of the slide 167.

A slide 166 is movable horizontally endwise forward and backward in guideways in the line stop bracket 321, and this slide is alined with the slide 168. Its front end is inclined so as to be parallel with the adjacent rear end of the slide 167.

From the foregoing it will be understood that normally the slides 166 and 168 are in alinement with each other and with the stud 211 on the pot nozzle. If the elevator had descended to the proper level, shaft 275 will have been pushed down so as to carry lever 274 into such position that it may transmit motion from slide 271 to slide 278. When, now, the matrix line is moved forcibly over against the abutment member 176 the slide 271 will be moved, thereby rocking lever 274 and moving slide 278 so as to carry slide 167 into alinement with slides 166 and 168. If, now, when the mold is moved to the casting position, it comes properly into that position, the slide 212 carried thereby will be moved into alinement with slide 166 and stud 211. The beveled surface on the front end of slide 212 by engaging the beveled rear end of slide 166 will push that slide forward; and this slide in turn will push slide 167 forward into engagement with slide 168, thereby for the time being making all these four slides a single composite slide. Next, the pot nozzle is moved forward to carry it against the mold. In this movement stud 211 will push forward the composite push bar made up of the alined slides 212, 166, 167 and 168, thereby rocking shaft 327 and withdrawing pawl 327^a from the notch 325^a in the squirt preventer slide 325. While the pot nozzle is being so moved, the squeeze slide is being moved rearward so as to move the compacted matrix line on the elevator against the mold. This rearward movement of the squeeze slide will permit the squirt preventer slide 325 to be moved by its spring 326 in the plunger releasing direction. The result will be that the plunger 86 will be released at the proper time to allow the spring-actuated ejecting movement of the metal pump plunger to take place while the pot nozzle and the matrix line are in contact with the mold. The metal discharged from the nozzle will, under these circumstances, go into the mold to form the linotype, and will not go elsewhere.

When a linotype has been cast the cam 85 will have returned to its starting point, and will have lifted the plunger 99, and will hold them in this position. The squeeze slide will then move forward and will push the squirt preventer slide 325 into the notch 86^a. The end clamp 245 will release its pressure against the matrix line, and the elevator will be raised. Thereby spring 279 acting on slide 278 will move it to its initial position, and thereby carry slide 167 out of alinement with the slides 168 and 166. The spring 272 will similarly move slide 271. The spring 276 will move lever 274 and shaft 275. The spring 169 will so move slide 168 as to rock shaft 327 and again carry pawl 327^a into the notch 325^a of the squirt preventer slide. When the pot nozzle moves rearward to its normal position the spring 214 will move slide 212 rearward until such movement is stopped by the engagement of the enlarged head of said slide with the mold. These movements will have restored to their normal positions the parts which are concerned in the casting operation, and the parts whose function is to prevent the discharge of metal from the pot nozzle until all of the parts concerned in the casting operation are properly positioned.

Attention is called to the fact that the studs 277^r and 277^t are beveled and that the slides 271 and 278 with which these studs engage are oppositely beveled. It is also to be noted that the engaging ends of the slides 212, 166, 167 and 168 are likewise beveled. The purpose of these various beveled surfaces is to insure the proper length and con-

tinuity of the composite slide 166, 167, 168, when all the parts concerned in the casting operation are in proper position, and to shorten the length of the composite slide, or even break its continuity when any one of the parts is not in proper position. Thus if the elevator had not come down to its proper resting place the slide 167 will not be pushed to the right enough to give the proper length to the composite slide to release the slide 325 from the pawl 327ª in spite of the nozzle, the mold, the matrix line and the squeeze slide being in proper position. Likewise, if the matrix line does not properly abut pawl 327ª will not be released in spite of the nozzle, mold, elevator and squeeze slide being properly positioned.

Having described my invention, I claim:

1. In squirt preventer mechanism for linotype machines, the combination with a metal-pump piston, a spring for moving it in the working direction, a cam, and a train of mechanism intermediate of the cam and piston through which the cam restrains the spring-induced working stroke of said piston, a squirt preventer which normally engages a member of the train of mechanism intermediate of said cam and piston and prevents the spring induced movement of said member, and consequently of the other members of the train of mechanism and the piston, and means which are caused to operate when the parts concerned in the casting of a line of type are moved into proper casting positions for causing the withdrawal of said squirt preventer and the consequent freeing of the pump piston from the restraining influence thereof.

2. In a squirt preventer mechanism for linotype machines, the combination of a metal pump piston, a rock shaft having two arms of which one is operatively connected with the pump piston, a plunger with which the other arm engages, a spring for rocking said rock shaft, and a cam against which said plunger bears to restrain the spring-induced rocking of said rock shaft, of a movable squirt preventer which engages with said plunger to prevent the spring induced movement thereof, and means, which become operative only when the parts concerned in the casting of a linotype are in their proper position, for causing the withdrawal of said squirt preventer.

3. In a squirt preventer mechanism for linotype machines, the combination of a metal-pump piston, a rock shaft having two arms of which one is operatively connected with said pump piston, a plunger with which the other arm engages, a spring for rocking said rock shaft in one direction, and a cam against which said plunger bears to restrain the spring induced rocking movement of said rock shaft, of a movable squirt preventer which engages with said plunger to prevent the spring induced movement thereof, a pawl which engages said squirt preventer to prevent its withdrawal, and means, which become operative only when the parts concerned in the casting of a linotype are in their proper position, for causing the withdrawal of said pawl, a spring adapted to withdraw said squirt preventer, and a slide resisting the spring induced movement of said squirt preventer.

4. In squirt preventer mechanism for linotype machines, the combination with the mold, pot nozzle, a metal-pump piston, a spring for moving it in the working direction, a cam, and mechanism whereby the cam restrains the spring induced working stroke of said pump piston, of a supplemental device for restraining the spring-induced working stroke of said pump, a push rod made up of at least two normally disalined pieces, which push rod controls the withdrawal of the supplemental restraining device, one part of said push rod being carried by the mold whereby it will become alined with the other part of the push rod only when the mold is in the casting position, and means carried by the melting pot for engaging the push rod section which the mold carries, whereby the push rod is moved in the direction to cause the withdrawal of the supplemental restraining device.

5. In squirt preventer mechanism for linotype machines, the combination of a spring actuated metal-pump piston a principal device for restraining the working stroke of said piston, a movable device which is supplemental to the principal device for restraining the working stroke of the metal-pump piston, a movable mold, a melting pot which is movable toward and from the mold, a slide carried by the mold and adapted to be engaged and moved by the pot nozzle when the mold is in the casting position, and means rendered operative by said slide for withdrawing the supplemental device which restrains the working stroke of the pump piston.

6. The combination of a vertically movable elevator having a shelf to support a matrix line, an abutment bracket adjacent to said elevator, a slide movable horizontally through said abutment bracket and adapted to project over the elevator shelf, a lever supported on a vertical axis and adapted to move axially up and down, means carried by the elevator for moving said lever down whereby one arm thereof is carried into operative relation with the slide in the abutment bracket, another slide moving in a path parallel with the first mentioned slide and into engagement with which the other arm of said lever will simultaneously move as the lever is moved downward, a sliding push bar member which is movable by the last mentioned slide into operative position, a

pump piston restraining device, and means operated by mechanism of which the said sliding push bar member is a part for causing the releasing movement of said pump piston restraining device.

7. In squirt preventer mechanism for linotype machines, the combination with a vertically movable elevator having a support for the matrix line, a slide of which one end is adapted to overhang said support whereby it may be engaged and moved by a matrix line when moving along said support to the casting position thereon, a rock shaft which is movable endwise up and down, the upper end of which lies in the path of a part of the elevator whereby the elevator in its downward movement will strike said shaft and move it down, a spring for moving said shaft up, a lever arm fixed to said shaft and adapted to be engaged by said slide when the shaft has been moved down by the elevator, a second lever arm fixed to said rock shaft, and squirt preventer means adapted to be operated thereby when the shaft has been so moved down.

8. In squirt preventer mechanism for linotype machines, the combination with a vertically movable elevator having a support for the matrix line, a slide of which one end is adapted to overhang said support whereby it may be engaged and moved by a matrix line when moving along said support to the casting position thereon, a rock shaft which is movable endwise up and down, the upper end of which lies in the path of a part of the elevator whereby the elevator in its downward movement will strike said shaft and move it down, a spring for moving said shaft up, a lever arm fixed to said shaft and adapted to be engaged by said slide when the shaft has been moved down by the elevator, a second lever arm fixed to said rock shaft, a slide adapted to be operated by said lever when the shaft is down, and a push bar member carried by the last mentioned slide and movable in a direction transverse in its movement, and squirt preventer mechanism of which this push bar member is a part.

9. In squirt preventer mechanism, the combination of a metal pump, spring-actuated mechanism for moving it in the metal ejecting direction, a plunger engaging said spring actuated mechanism, and a cam engaging said plunger, with a squirt preventer engaging said plunger and preventing its spring-induced movement, a spring acting to withdraw the squirt preventer, a pawl engaging the squirt preventer to prevent the spring-induced movement thereof, a squeeze slide whereon the matrix line is indirectly supported, a pot nozzle, a mold which is movable into casting position between said squeeze slide and pot nozzle and away from said casting position, and mechanism of which a part is carried by the mold and is operable by the pot nozzle for withdrawing the pawl which is in engagement with the squirt preventer.

10. In squirt preventer mechanism for linotype machines, the combination of a metal pump, a pot nozzle in communication therewith, a metal pump piston, spring-actuated mechanism for imparting to said piston its metal ejecting stroke, a plunger, and a cam for controlling the movement of said pump piston, a squirt preventer engaging said plunger to prevent its spring-induced movement, a pawl engaging the squirt preventer to prevent its withdrawal, a mold having a transversely movable push rod member, mechanism adapted to be operated by said push rod member for withdrawing said pawl, said push rod member being placed so that it will be engaged and moved by a part of the pot nozzle when said nozzle and mold are brought into casting contact.

11. In squirt preventer mechanism, the combination of a vertical rock shaft which is movable vertically endwise up and down, a spring for moving it up, two lever arms extending in opposite directions and having tapered studs in their ends, two slides which have tapered ends with which the tapered ends of said studs will engage when said rock shaft is moved down, and a vertically movable elevator having an arm adapted to engage said shaft and move it down.

12. In squirt preventer mechanism, the combination of a metal pump, its piston, and spring-actuated mechanism for operating the same in a metal ejecting direction, means for restraining such spring-induced movement which include a plunger and a cam, a movable squirt preventer adapted to engage said plunger and restrain its spring-induced movement, a spring acting on said squirt preventer to retract it, a pawl engaging said squirt preventer to prevent its spring-induced movement, a push rod member, and mechanism intermediate of it and the pawl whereby the latter may be moved, another push rod member alined with the first push rod member specified, the approximate ends of which push rods are oppositely inclined, and a third push rod member having its ends inclined and normally standing in a position in which it is disalined with the two push rod members mentioned but adapted to be moved between and into alinement therewith.

13. In squirt preventer mechanism, the combination of a metal pump, its piston, and spring-actuated mechanism for operating the same in a metal ejecting direction, means for restraining such spring-induced movement which include a plunger and a cam, a movable squirt preventer adapted to engage said plunger and restrain its spring-induced movement, a spring acting on said squirt preventer to retract it, a pawl engaging said

squirt preventer to prevent its spring-induced movement, a push rod member, and mechanism intermediate of it and the pawl whereby the latter may be moved, another push rod member alined with the first push rod member specified, the approximate ends of which push rods are oppositely inclined, a third push rod member having its ends inclined and normally standing in a position in which it is disalined with the two push rod members mentioned but adapted to be moved between and into alinement therewith, mechanism operated by pressure from a matrix line for moving the intermediate push rod member into its alined position.

14. In squirt preventer mechanism, the combination of a metal pump, its piston, and spring-actuated mechanism for operating the same in a metal ejecting direction, means for restraining such spring-induced movement which include a plunger and a cam, a movable squirt preventer adapted to engage said plunger and restrain its spring-induced movement, a spring acting on said squirt preventer to retract it, a pawl engaging said squirt preventer to prevent its spring-induced movement, a push rod member, and mechanism intermediate of it and the pawl whereby the latter may be moved, another push rod member alined with the first push rod member specified, the approximate ends of which push rods are oppositely inclined, and a third push rod member having its ends inclined and normally standing in a position in which it is disalined with the two push rod members mentioned but adapted to be moved between and into alinement therewith, mechanism operated by pressure from a matrix line for moving the intermediate push rod member into its alined position, and means carried by the mold for engagement with the rear push rod member whereby the composite push rod may be moved in the pawl withdrawing direction.

15. In squirt preventer mechanism for linotype machines, the combination of a metal pump, its piston, a rock shaft having an arm engaging the piston rod, a spring operating upon said rock shaft to turn it in a direction to compel the metal ejecting stroke of the piston, a second arm secured to the rock shaft, a plunger with which said arm engages, and a rotatable cam with which said plunger engages to restrain the spring-induced movement of the rock shaft, a squirt preventer slide engaging said plunger to prevent said spring-induced movement, a spring acting to retract said squirt preventer slide, a squeeze slide engaging the squirt preventer slide to prevent its spring-induced movement, a rock shaft having a pawl arm adapted to engage said squirt preventer and prevent its spring-induced movement, and having a second arm, a push rod member engaging said second arm, another push rod member which is normally disalined with the push rod member first specified, a slide adapted to move the second push rod member into alinement, a vertical rock shaft which is movable endwise, a spring acting to move it upward, a lever arm fixed thereto and adapted when said shaft is moved down to engage the last mentioned slide, a vertically movable elevator having a support for the matrix line, a slide of which one end projects normally over said support, a second arm fixed to the rock shaft and adapted, when the rock shaft is depressed, to be engaged by the slide which projects over the elevator support, an arm carried by the elevator and adapted to engage said rock shaft and move it down, a third push rod member which is normally alined with the first push rod member specified, a movable mold, a push rod member carried thereby, and which will be brought into alinement and engagement with the third push rod member specified when the mold is in the casting position, a pot nozzle, and means carried thereby for engaging the push rod member carried by the mold whereby the alined push rod members will be moved.

16. In a squirt preventer mechanism for linotype machines, the combination of a metal pump, its piston, a rock shaft having an arm engaging the piston rod, a spring operating upon said rock shaft to turn it in a direction to compel the metal ejecting stroke of the piston, a second arm secured to the rock shaft, a plunger with which said arm engages, and a rotatable cam with which said plunger engages to restrain the spring-induced movement of the rock shaft, a squirt preventer slide engaging said plunger to prevent said spring-induced movement, a spring acting to retract said quirt preventer slide, a squeeze slide engaging the squirt preventer slide to prevent its spring-induced movement, a rock shaft having a pawl arm adapted to engage said squirt preventer and prevent its spring-induced movement, and having a second arm, a push rod member engaging said second arm, another push rod member which is normally disalined with the push rod member first specified, a slide adapted to move the second push rod member into alinement, a vertical rock shaft which is movable endwise, a spring acting to move it upward, a lever arm fixed thereto and adapted when said shaft is moved down to engage the last mentioned slide, a vertically movable elevator having a support for the matrix line, a slide of which one end projects normally over said support, a second arm fixed to the rock shaft and adapted, when the rock shaft is depressed, to be engaged by the slide which projects over the elevator support, an arm carried by the elevator and adapted

to engage said rock shaft and move it down, a third push rod member which is normally alined with the first push rod member specified, a movable mold, a push rod member carried thereby, and which will be brought into alinement and engagement with the third push rod member specified when the mold is in the casting position, a pot nozzle, and means carried thereby for engaging the push rod member carried by the mold whereby the alined push rod members will be moved, and springs for restoring the several moving parts of the squirt preventer mechanism to their normal positions.

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

DAVID PETRI-PALMEDO.

Witnesses:

WARREN L. FULLER,

E. F. GODDARD.