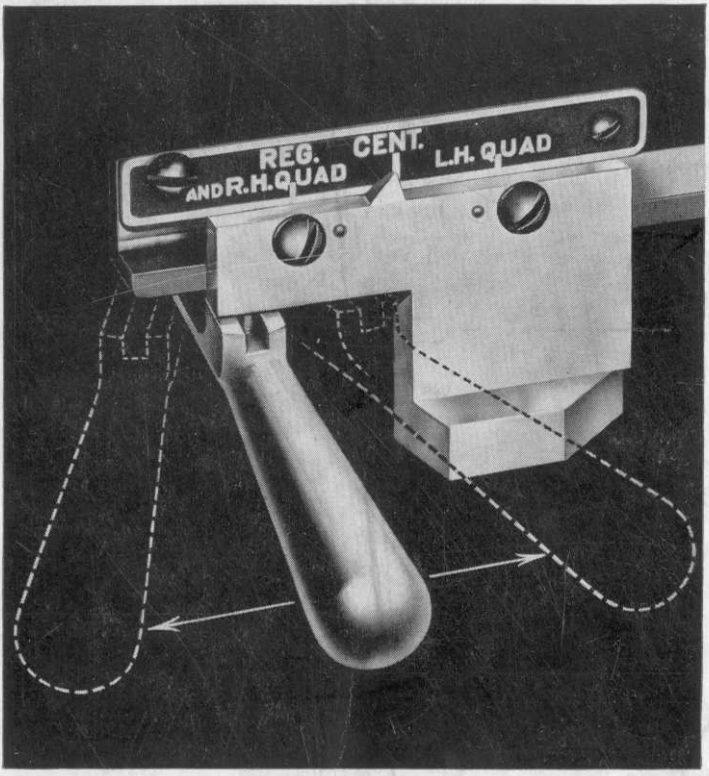
LINOTYPE

SELF QUADDER



OPERATION and MAINTENANCE

THIS BOOKLET covers the Linotype Self-Quadder as applied to Linotype No. 57090 and up. The following pages contain instructions for its care and operation. There are also diagrams to illustrate the various settings and adjustments described. It is suggested that the entire book be read through to become familiar with the contents and then return to the specific items of interest.

TRADE LINOTYPE REG. U.S. PAT. OFF.

Set in Memphis Medium, Memphis Bold and Textype

The Linotype Self-Quadder

THE LINOTYPE SELF-QUADDER sets short-line measure in the center or at either end of Linotype slugs. Special skill and considerable time formerly required, of the operator, for this sort of composition is eliminated. It is no longer necessary to fill out short-measure lines with quads, as in regular Linotype operation.

The Self-Quadder will carry out the functions of Right-Hand Quadding, Left-Hand Quadding, and Centering, on lines nearly full or containing but a single character. It will provide blank slugs, if no matrices are present, while set for any of the self-quadding operations. It sets white space at the beginning or end of a line, without the expenditure of the operator's time or effort.

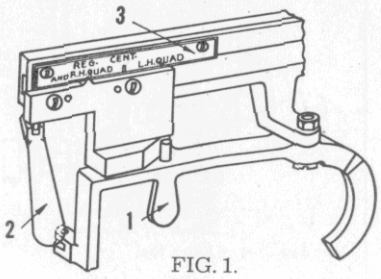


FIG. 1.

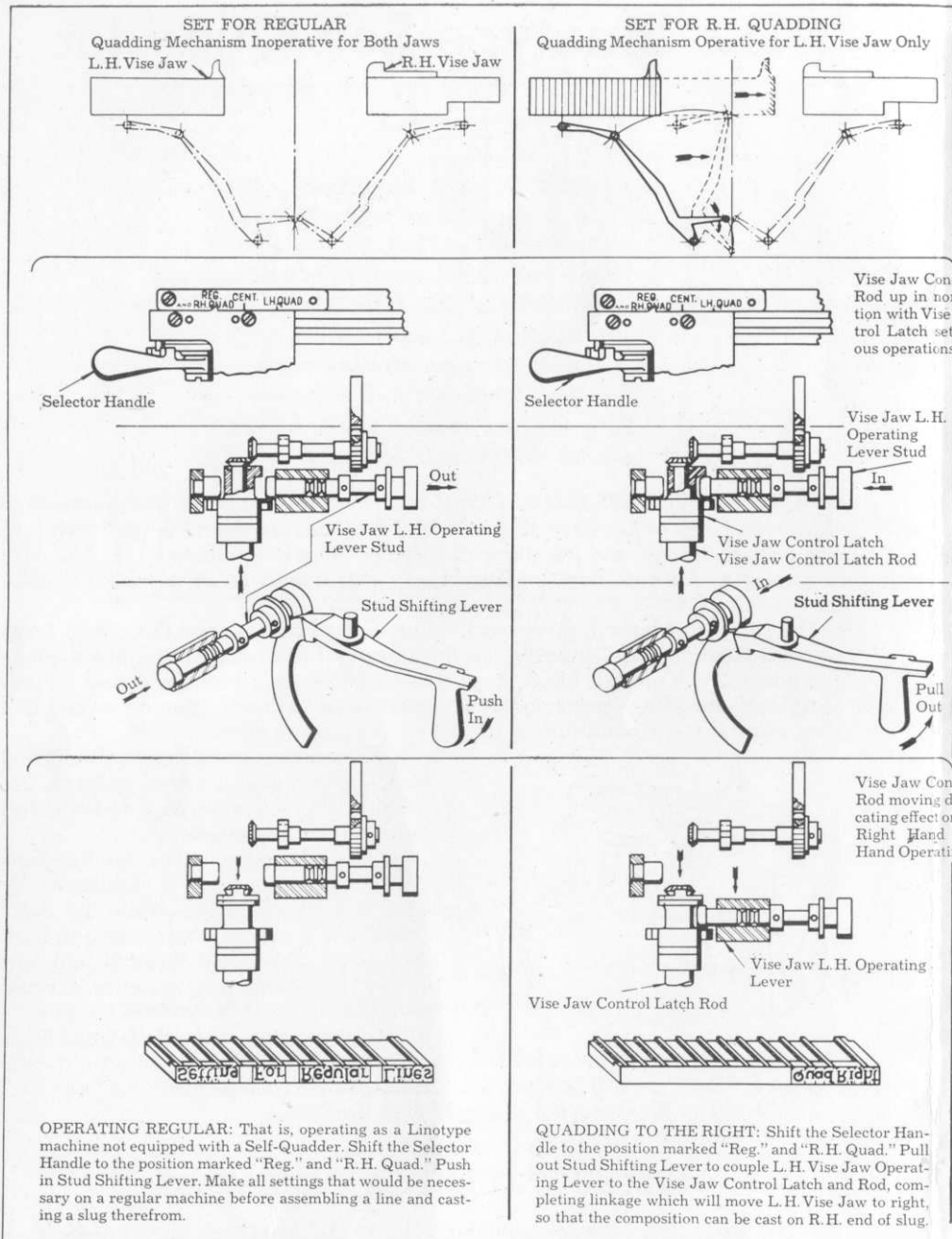
Its versatility, precision, sturdiness and simplicity are qualities that make its use indispensable on otherwise tedious and more difficult composition.

Spaceband wedge action, for the purpose of tightening lines, is eliminated, by being made inoperative, while the Self-Quadder is in use. All short-measure lines are instead made tight through sufficient and additional clamping pressure, exerted by the vise jaws at the ends of the line.

The functioning of the Self-Quadder is eliminated if the stud shifter lever *1*, Fig. 1, is pushed in, when the selector handle *2*, is set at "Reg." and "R.H. Quad." The machine can then be operated "regular," the same as any Linotype, not equipped with the device.

INSTRUCTIONS FOR OPERATING

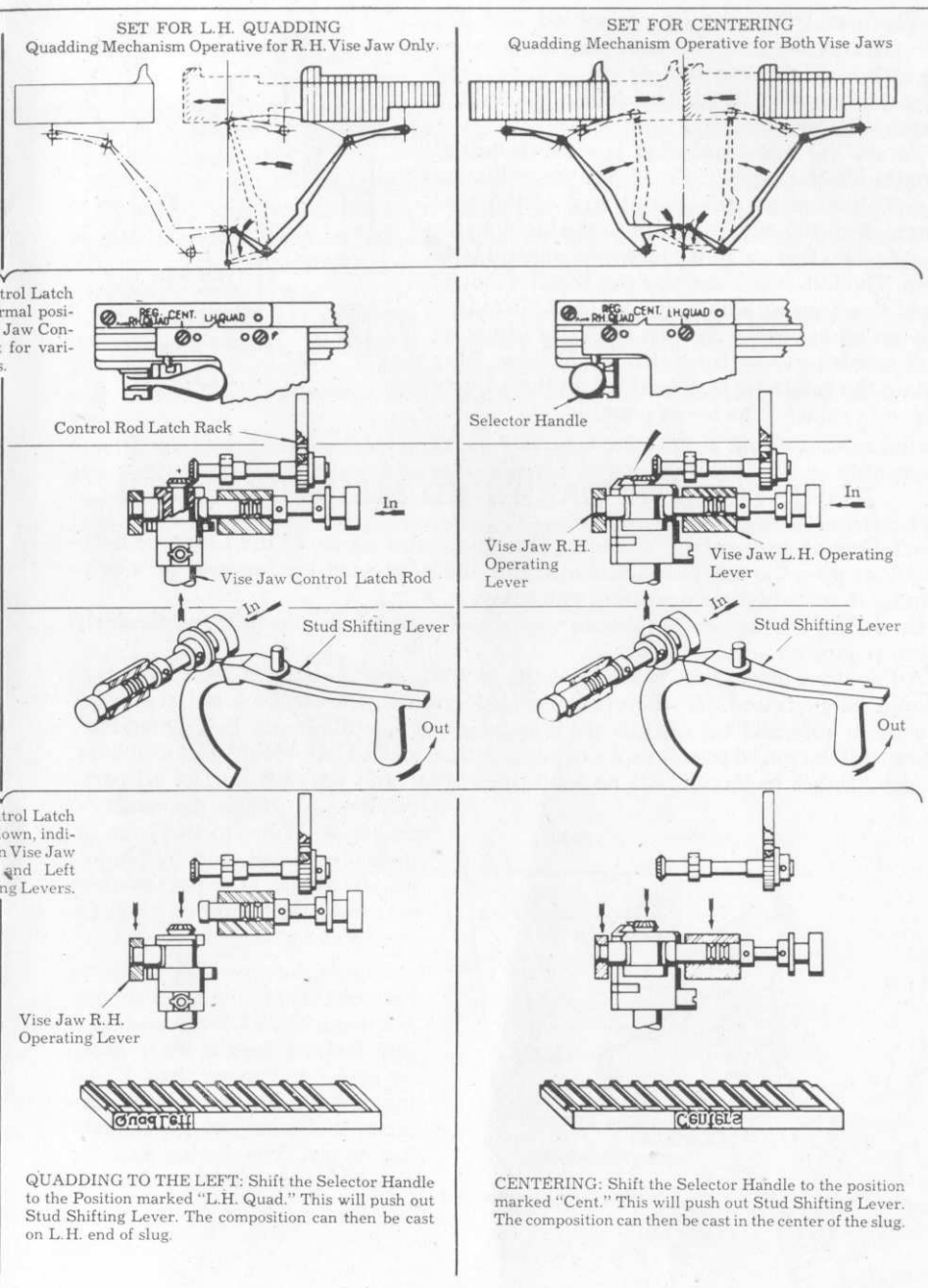
FOR ALL COMPOSITION the operator should make the usual scale adjustments, such as setting the assembler slide, ejector blade and knife block, to conform to the length and point size of the slug to be cast. The line stop is automatic in its action and needs no manual positioning. The assembling elevator is designed so that one



OPERATING REGULAR: That is, operating as a Linotype machine not equipped with a Self-Quadder. Shift the Selector Handle to the position marked "Reg." and "R.H. Quad." Push in Stud Shifting Lever. Make all settings that would be necessary on a regular machine before assembling a line and casting a slug therefrom.

QUADDING TO THE RIGHT: Shift the Selector Handle to the position marked "Reg." and "R.H. Quad." Pull out Stud Shifting Lever to couple L.H. Vise Jaw Operating Lever to the Vise Jaw Control Latch and Rod, completing linkage which will move L.H. Vise Jaw to right, so that the composition can be cast on R.H. end of slug.

Instructions for operating the Linotype Self-Quadder with views showing the posi



QUADDING TO THE LEFT: Shift the Selector Handle to the Position marked "L.H. Quad." This will push out Stud Shifting Lever. The composition can then be cast on L.H. end of slug.

CENTERING: Shift the Selector Handle to the position marked "Cent." This will push out Stud Shifting Lever. The composition can then be cast in the center of the slug.

tion of the vise jaw control rod latch with respect to position of selector handle.

or more matrices can be assembled and delivered into the first elevator jaw without the necessity of moving the delivery slide long finger, to support them. The action of the long finger is automatic.

To set the left-hand vise jaw for required length, lift the latch *1*, Fig. 2, on the adjusting rod *2*, located at right-hand end of the vise frame. Pull the adjusting rod to the right as far as possible, then turn it clockwise one-quarter turn. The left-hand vise jaw can then be moved until the desired length of line is indicated by the em scale pointer 3. Now turn the adjusting rod counter-clockwise until the locking latch enters the retaining slot 4, and push the adjusting rod to the left as far as possible.

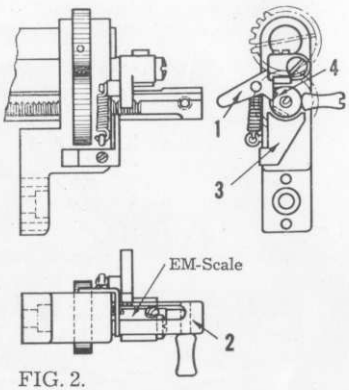


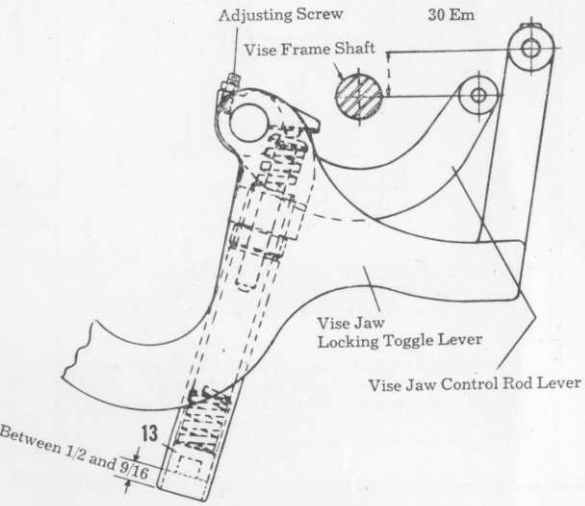
FIG. 2.

ADJUSTMENTS, CARE AND MAINTENANCE

The following pages of adjustments, care and maintenance of the Linotype Self-Quadder give the machinist and operator the necessary instructions for maintaining it at its highest operating efficiency.

Operators and machinists should read these instructions carefully, particularly those regarding adjustments.

All settings are carefully made at the factory, and if changed later, due care should be exercised. If, when consulting diagrams, you are in doubt regarding the parts referred to, consult parts catalog of the "Linotype Self-Quadder," where will be found photographs of parts with associate letters and part numbers. Under "Index to Parts" will be found the letter and part number of all parts referred to in the drawings of this book. Turn to the page or pages indicated, and by photographs identify the part desired and note the name on the opposite page.



Toggle Lever—The distance between centers of studs on vise jaw control rod lever and vise jaw locking toggle lever must be set at not more than 1″, as indicated in Fig. 3, and this distance is obtained by the adjusting screw. The spring nut *13*, should be adjusted as indicated.

FIG. 3. View showing standard dimensions of vise jaw locking toggle lever and vise jaw control rod lever.

Vise Jaw Control Latch Rod—The vise jaw control latch rod, see Diag. pages 4 and 5, is properly adjusted at the factory for correct height. If this vise jaw control latch rod is set too high, the selector handle will not shift back and forth easily, and the right-hand vise jaw will not have sufficient end play. If the vise jaw control latch rod is set too low, the selector handle will not operate the vise jaw control rod latch.

To test for proper height of vise jaw control latch rod, set selector handle at "L.H. Quad." and move the right-hand vise jaw back and forth. The end play should be about .010 of an inch. To adjust the vise jaw control latch rod to obtain this end motion, readjust the screw *16*, Fig. 4, located on top of the air cushion cylinder bracket.

If the vise jaws do not return to their normal positions it is an indication that the vise jaw control latch rod is not rising high enough. This may be due to the 1″ dimension between centers of vise jaw locking toggle lever and vise jaw control rod lever, being off. This can be corrected by adjusting screw shown in Fig. 3.

With the machine in normal position, turn screw *21*, Fig. 4, until the cam roll *18* just lightly touches the cam. Also adjust screw *12*, Fig. 4A, until it clears the cross member of the vise frame by $\frac{1}{64}$ of an inch.

Vise Jaw Control Latch Guide—Safety is provided, by mechanism indicated at

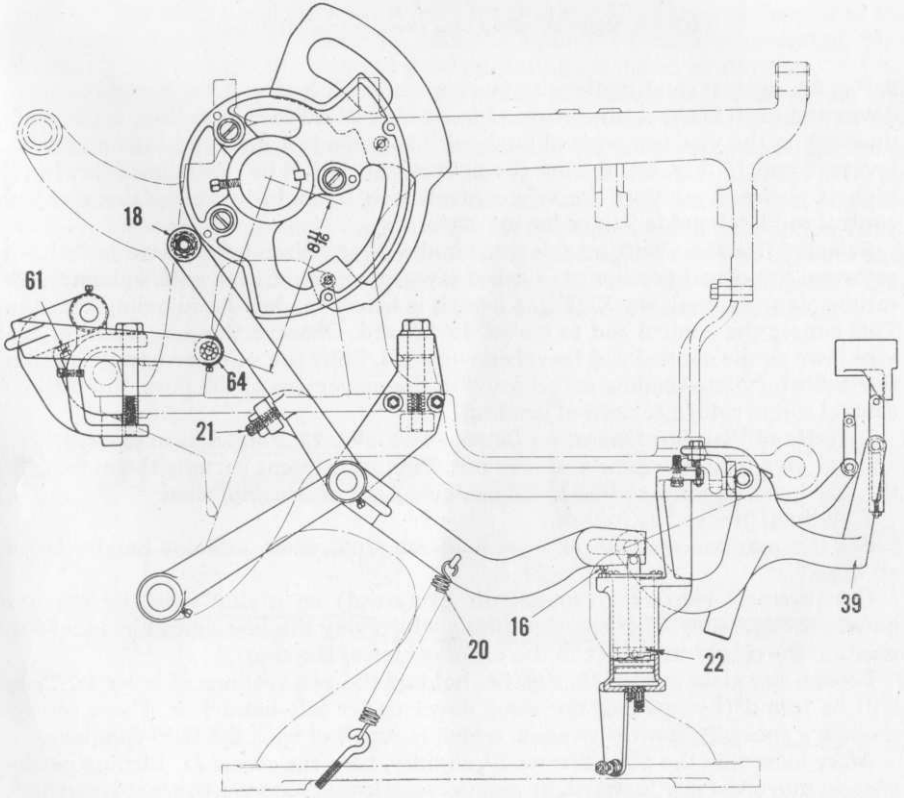


FIG. 4. Side view of the Self-Quadder mechanism.

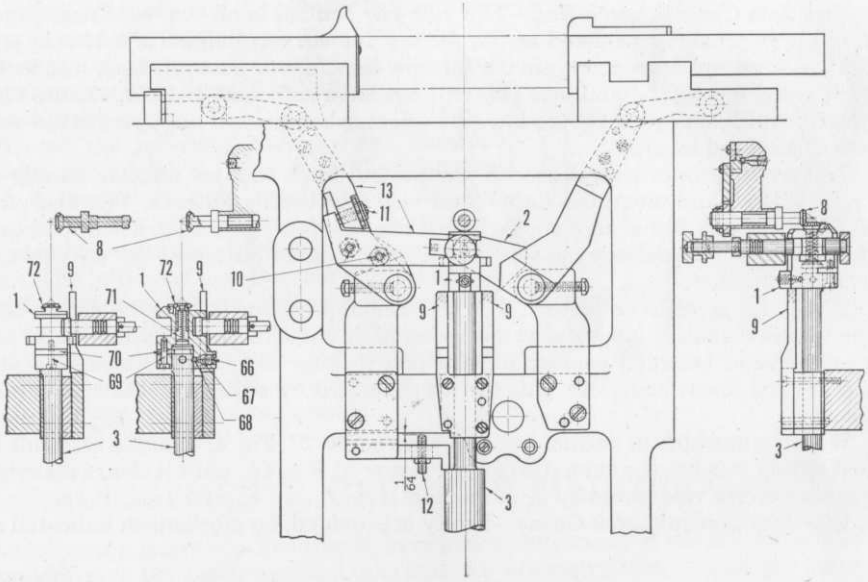


FIG. 4A. View showing vise jaw control latch guide.

9, Fig. 4A, against rotating the vise jaw control latch *1*, after it has started to move down and until it has again returned to its highest elevated position. It prevents uncoupling the vise jaw control latch with the vise jaw R.H. and L.H. operating levers, *2* and *13*, Fig. 4A, during the operative cycle of the Self-Quadder. In its highest elevated position, the vise control latch *1* should just clear the vise jaw control rod latch guide *9* in order to rotate.

Selector Handle—Shifting selector handle at any time before vise jaws have returned to normal position will cause jaws to be out of time with indicator. To retime, depress the lever *39*, Fig. 4, which is below the left-hand galley bracket. This causes the control rod to travel downward. Observe the movement of the vise jaws as the control rod travels downward. Shift the selector handle so that the indicator plate reading coincides with the movement of the jaws. Then allow control rod to return to normal position.

Left-Hand Vise Jaw Operating Lever—The lever *13*, Fig. 4A, is in two sections, and has an adjusting screw and lock nut. This adjustment permits the moving of the left-hand vise jaw so that exact centering can be accomplished.

To adjust, proceed as follows:

Set the margins on both ends of a 30-em slug, when selector handle is set at "Reg."

Cast a single character (space rule preferred) on a slug with the selector handle set at center. This will determine which way the jaw should be moved to position the single character in the exact center of the slug.

Loosen the plate screws *10*, Fig. 4A, holding the two sections of lever *13*. They will be found (by opening the vise) down under left-hand jaw. These screws require a specially formed wrench, which is supplied with the Self-Quadder.

After loosening the plate screws *10*, slightly, turn the screw *11*, turning clockwise to move the jaw forward, or counter-clockwise to move the jaw backward. After this adjustment is made, tighten the plate screws, making sure that the

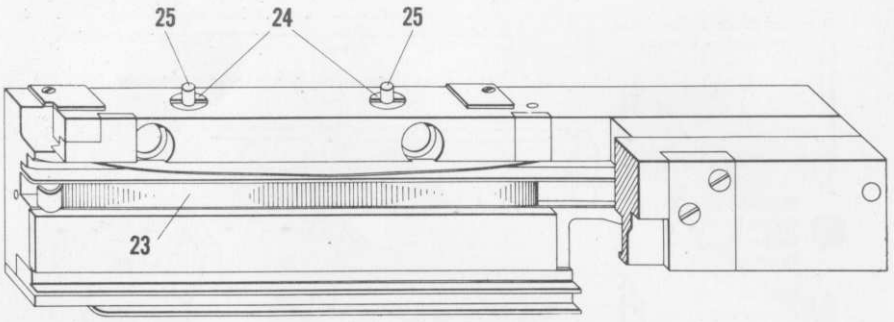


FIG. 5. View of the first elevator front jaw with the matrix detent in position to steady the last matrix of the line.

jaw is held pressed to the left with the two sections of lever *13*, banking on screw *11*.

Matrix Detent—The first elevator jaw is equipped with a matrix detent *23*, Fig. 5. Its purpose is to steady the last matrix of each line delivered into the jaw. It will be observed that when quadding left or centering, the last matrix is moved away from the jaw spring pawls. In this position, the detent comes in contact with the last matrix and prevents it from turning and falling out of the jaw as the first elevator rises after casting. Its action is equally effective in recasting. This detent should be kept clean and in good operating condition at all times.

The matrix detent is depressed by the action of the line stop to allow the line of matrices to enter the first elevator jaw. As the matrices enter the jaw, the line stop is forced outward allowing the detent to hold the matrices in position. When the line of matrices is being transferred to the second elevator bar, the transfer rod attached to the transfer slide carries the line stop fully into the first elevator jaw. At the transfer position the plungers *25*, are depressed, which action withdraws the matrix detent so that there is no tension against the matrices at this position. It is important that the transfer rod should carry the line stop fully into the first elevator jaw to be in position for the next line of matrices to enter.

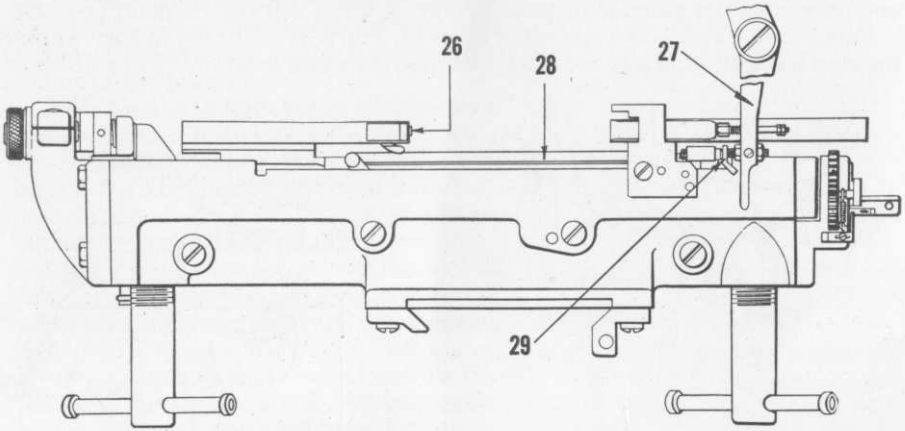


FIG. 6. View of the vise cap and vise jaws showing the vise jaw left-hand safety detent and the pump stop operating lever.

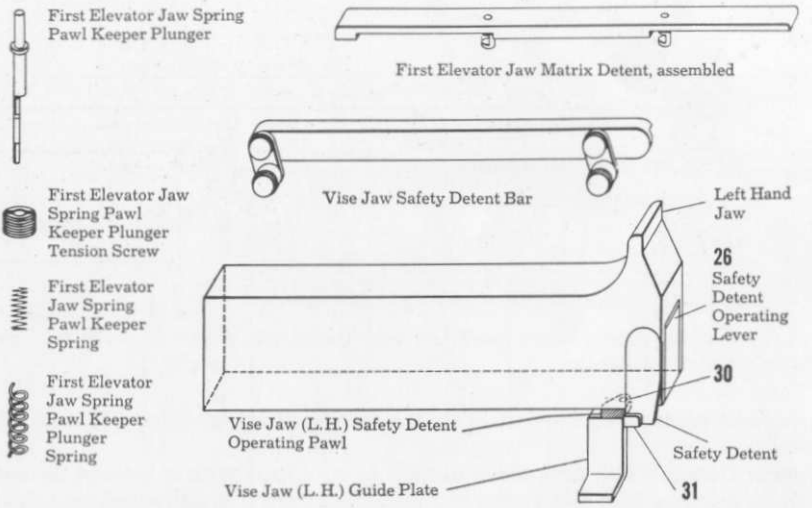


FIG. 7. View showing details of the vise jaw left-hand safety detent and first elevator jaw matrix detent.

Left-Hand Vise Jaw Detent Operating Lever—This operating lever *26*, Fig. 6 and 7, and associated parts contained in the left-hand vise jaw should be kept clean and free from small particles of metal, which may prevent free operation. It is the pressure of the matrices against the lever *26* that operates the pump stop lever operating lever *27*, Fig. 6, through the movement of the safety detent bar *28*.

The safety detent operating lever should always extend beyond the face of the vise jaw after the matrices have risen from between the vise jaws. If this lever remains flush with the face of the vise jaw or remains depressed, the pump stop lever will be open, which would allow machine to cast with a short line or with the jaws open. The detent bar *28*, Fig. 6, must be parallel with the vise cap. If this bar becomes bent or damaged, it should be straightened or replaced with a new one otherwise the pump stop lever operating lever will not function properly.

Pump Stop Lever—The operating lever *27*, Fig. 8, is set in the factory so that the stop lever *32* will clear the catch block on the pump lever, by $\frac{1}{64}$ of an inch or

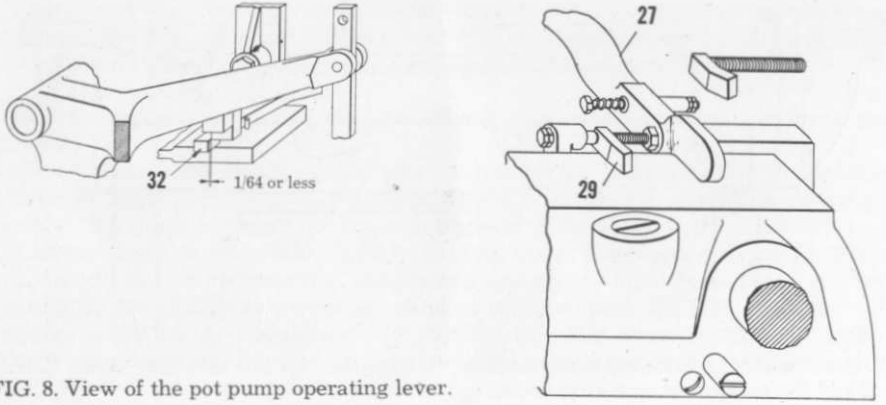


FIG. 8. View of the pot pump operating lever.

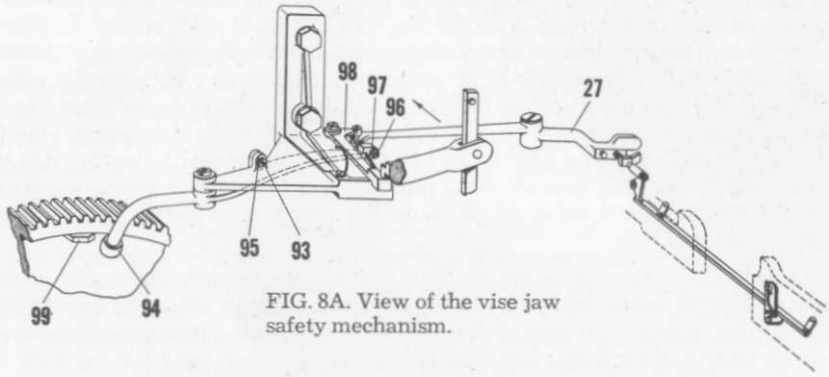


FIG. 8A. View of the vise jaw safety mechanism.

less when the plunger descends. *This is a very important adjustment and should be checked often.* Adjustment is made by screw *29*, with a full line of matrices and spacebands between the vise jaws.

Adjustment of Vise Jaw Left-Hand Safety Detent—Adjust stop screw *93*, Fig. 8A, until roll *94* comes into operating contact with bevel of actuating cam *99* and secure in position with lock nut *95*.

Manually move operating lever *27* to limit of travel in direction of arrow, at which time lever *98* is against its stop pin. Adjust screw *96* until it just contacts lever *27* when roll *94* is on the highest surface of actuating cam *99* securing it with lock nut *97*.

Air Cushion Cylinder—Air cushion cylinder *22*, Figs. 4 and 9, which is located below the waste metal pan, controls the action of the vise jaws as they return to normal position. There is a regulating valve *34*, Fig. 9, below the cylinder which regulates the action of the jaws.

If the jaws snap back too fast, loosen lock nut and turn adjusting screw up into cylinder which will restrict the flow of air and slow down movement of the jaws. After adjusting the screw, the lock nut should be tightened to maintain the adjustment.

If the jaws do not move back to normal fast enough, adjust screw down, which will allow air in cylinder to escape and the jaws will return to normal quickly. This action is very similar to that which controls the delivery of matrices into the elevator jaws, an air cylinder being used in each instance to properly regulate the speed of the movement.

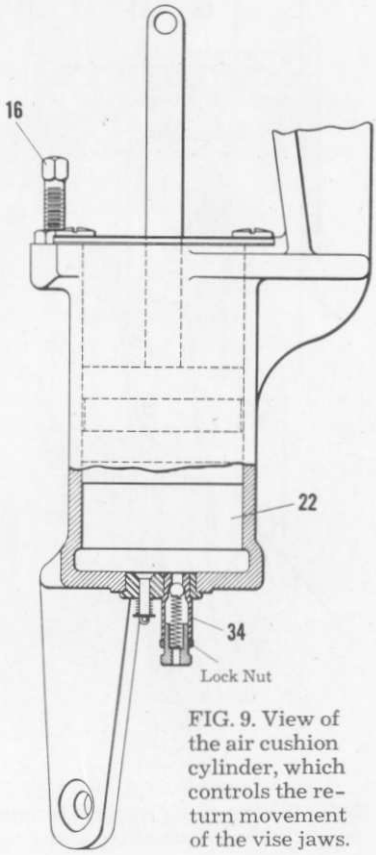


FIG. 9. View of the air cushion cylinder, which controls the return movement of the vise jaws.

Toggle Lock

Its Purpose—This mechanism prevents the vise jaws from moving back, previous to cast, when they have quadded or centered a line. It also permits the exerted pressure of the vise jaws against the line of matrices to be released after the cast, allowing the jaws to move back approximately $\frac{1}{32}$ of an inch. This permits the first elevator jaw with the line of matrices to rise freely and yet have the vise jaws act as a guide until the first elevator jaw has risen above the vise jaws. At this point the toggle lock is released allowing the vise jaw or jaws to move back to their normal position.

Its Operation—After the first elevator jaw has descended to the vise cap, the vise jaw control latch rod *3*, Fig. 10, starts down causing either or both the vise jaws to close against the line of matrices. When the vise jaw or jaws reach the line of matrices, their inward motion is halted.

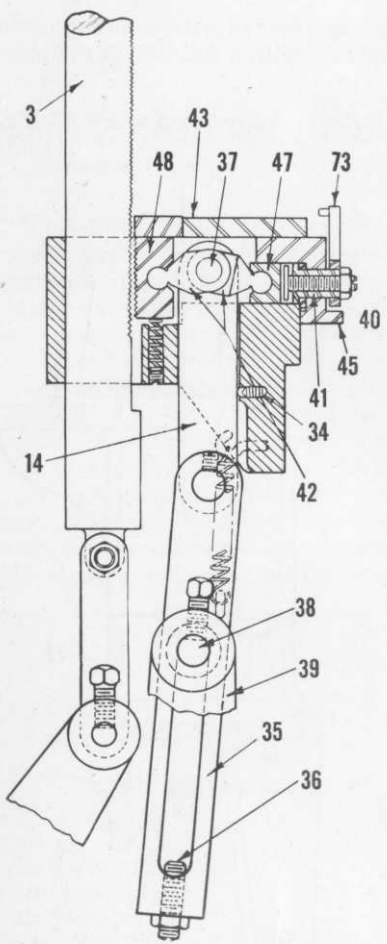


FIG. 10. View of the toggle lock mechanism in the unlocked position.

Following this, lever *39*, Fig. 10, moves downward until pin *38*, contacts screw *36*, and continuing, in turn pulls the center of stud *37*, down to a point slightly above the horizontal center line of the toggle arms, *42*. Stud *37*, maintains this position until all alignment has been completed. Then roll *18*, Fig. 13, rises on the face of cam *57*, at point *60*. This action through lever *39*, brings stud *37*, Fig. 10A, .020 below the horizontal center line of toggle arms *42*, completing the toggle locking action on the vise jaw control latch rod *3*. In this locking action, shoe *47*, has been forced back until it banks against adjusting screw *40*, and the back shoe *48*, which has serrations on it, has moved to engage similar serrations in the vise jaw control latch rod *3*.

At this point adjustable shoe *50*, Fig. 12, engages hook end of link *52*, and by action of the auxiliary cam *58*, Fig. 13, through associated mechanism and spring *63*, forces cam *53*, Fig. 12, to contact fixed roller *54*, resulting in a downward motion of shoe guide *55*. This action causes serrated block *48*, Fig. 11, which is engaged with vise jaw control latch rod *3*, to be forced down, thus applying extra pressure through the vise jaws against the line of matrices. This assures tight lines.

The Unlocking Action—Shortly after cast the cam roll *18*, Fig. 13, leaves the cam *57* and the auxiliary roll *64* also leaves the auxiliary cam *58*.

These combined cam release actions permit the spring *20*, Fig. 4, to raise lever *39*,

until adjusting screw Fig. 3, contacts the vise jaw control rod lever and then continuing causes it to raise the vise jaw control latch rod *3*, and the serrated block *48*, Fig. 10A, to which it still is engaged.

The small initial upward movement of the vise jaw control latch rod *3*, causes the vise jaws to move back slightly, so that the line of matrices in the first elevator jaw may rise freely without any pressure against the matrices, and also makes certain that the line of matrices is held loosely intact until after it has left the vise jaws.

This position of the locking mechanism is maintained until the first elevator jaw has lifted clear of the vise jaws at which time the releasing latch *64*, Fig. 14, which is attached to the first elevator slide, contacts releasing lever *73*, which revolves cam *41*, Fig. 10, to its lowest position. This relieves the pressure on front shoe *47*, thus permitting the arms *42* to snap up. This in turn withdraws the back shoe *48* from the vise jaw control latch rod *3*. The rod *3*, is then free to move upward and return vise jaws to normal position.

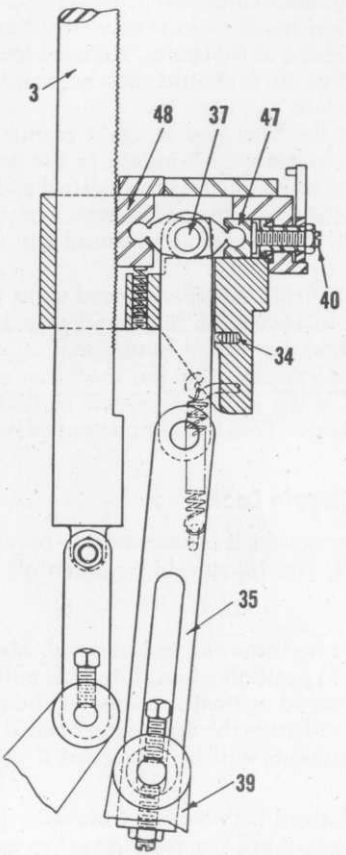


FIG. 10A. View of the toggle lock mechanism in the locked position.

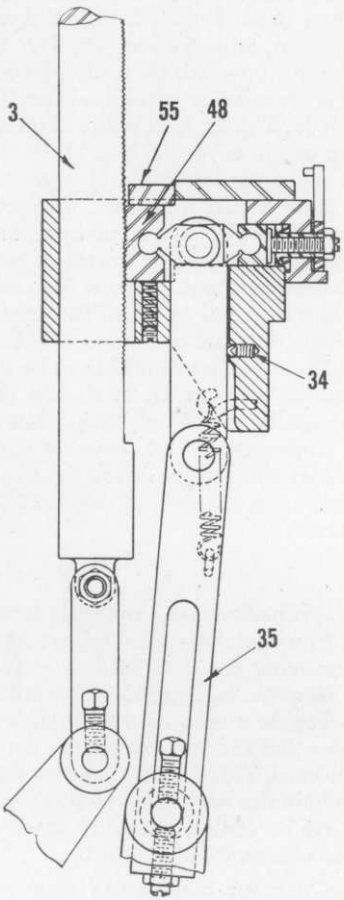


FIG. 11. View of the toggle lock mechanism in the locked position with extra pressure.

To hold the back shoe *48*, Fig. 10, away from the control rod *3* after the unlocking action, a plunger and spring *34* exerts pressure against the edge of slide *14*.

To adjust Shoe 50, Fig. 12—Adjust screw *61*, Fig. 13, until the center of shaft for roller *64* is $8\frac{11}{16}$ inches from the center of the main camshaft. This is shown in Fig. 4. Then adjust shoe *50*, Fig. 12, so that link *52*, will just clear it when vise frame is swung open.

Adjust nut *62*, Fig. 13, so that ¼″ of eyebolt projects beyond lock nut *62*, resulting in spring being under proper tension.

To adjust Toggle Lock—Take off first elevator slide stop from bottom of first elevator slide. Remove slug adjuster lever cam and remove hinge pin *65*, Fig. 14, from first elevator link and draw first elevator slide up and out of gibs, without disturbing setting of gibs.

Before attempting to adjust toggle lock make certain that adjustment between control rod lever and locking toggle lever, shown in Fig. 3, is correct.

Set screw *36*, Fig. 10, so that $\frac{3}{16}$″ of the thread extends in the opening of link *35*. Then press lever *39*, Fig. 4, down as far as possible, with foot. Hold it in this position, adjust screw *40*, Fig. 10A, until toggle lock holds control rod *3*, from moving upward, then turn lever *73*, Fig. 10, counter-clockwise, releasing lock.

With selector handle set for "R.H. Quad.", allow machine to revolve until cam roll *18*, Fig. 13, is at point *59* on cam *57*, stop machine at this point. Remove locking toggle cover *43*, Fig. 10. Back off screw *36*, Fig. 10. It should then be possible to move the left-hand vise jaw manually to the left.

Now adjust screw *36*, upward so that when the vise jaw is again manually pushed to the left, a ratchet-like sound will be indicated. The teeth in the back shoe *48* will then be touching but not meshed with the teeth in the control rod *3*. This adjustment of screw *36* is made prior to the final locking action which occurs when cam roll *18* is on rise *60* of cam *57*, Fig. 13. The ratchet-like sound will not occur in actual operation of the Self-Quadder.

The machine should then be revolved until cam roll *18* has advanced upon the rise *60* on cam *57*. It should not be possible to move the left hand vise jaw manually as the locking mechanism will be then in the locked condition.

Restore the first elevator slide to its original position on the machine, and adjust the release lever *64*, Fig. 14, by means of the adjusting screw so that it clears the cross rib of the vise frame by $\frac{1}{64}$ of an inch. *This is an important adjustment.*

Cleaning or Repairing Toggle Lock

To properly clean the toggle lock or to make any repairs it is necessary to remove it from machine. The adjusting screw block *45*, Fig. 10, should be taken off by removing the two holding screws.

Remove locking toggle cover *43*, Fig. 10.

Toggle mechanism with slide *14*, Fig. 10, can be removed and cleaned. Make sure that the ball and spring detent *34*, remains in position when slide *14* is pulled upward. This ball and spring detent exerts pressure against the edge of slide *14* to hold the back shoe *48* away from the control rod after the unlocking operation.

By carefully removing these parts, no adjustments will be disturbed if parts are reassembled properly.

CAUTION: If for any reason metal becomes lodged between first elevator jaw and vise jaws, when first elevator is in casting position—*Do not attempt* to open vise frame until the hinge pin *65*, Fig. 14, has been removed. This can be done quickly by releasing the knurled head screw and withdrawing the hinge pin.

Be sure the line stop in first elevator jaw is fully in before starting machine.

To back up machine, if roll *18*, Fig. 13, is in pocket of cam *57*, hold lever *17* toward rear of machine so that roll is free from cam.

Cleaning or Repairing Vise Jaw Control Latch

If metal or dirt should accumulate beneath the bevel pinion *72*, Fig. 4A, in control latch *1*, and it becomes necessary to remove this part for cleaning or repairing:

Remove screw *66*, spring *67* and ball *68* from latch *1*.

Remove screw *69*, holding key *70* from latch *1*. Latch *1*, can then be withdrawn from the vise jaw control latch rod *3*, being careful not to lose spring *71*, which presses up against bevel pinion *72*, and holds pinion *72*, in mesh with rack pinion *8*, when control rod *3*, is in highest position.

Clean all metal or dirt from these parts and reassemble. Be sure spring *71* contacts bevel pinion and works freely.

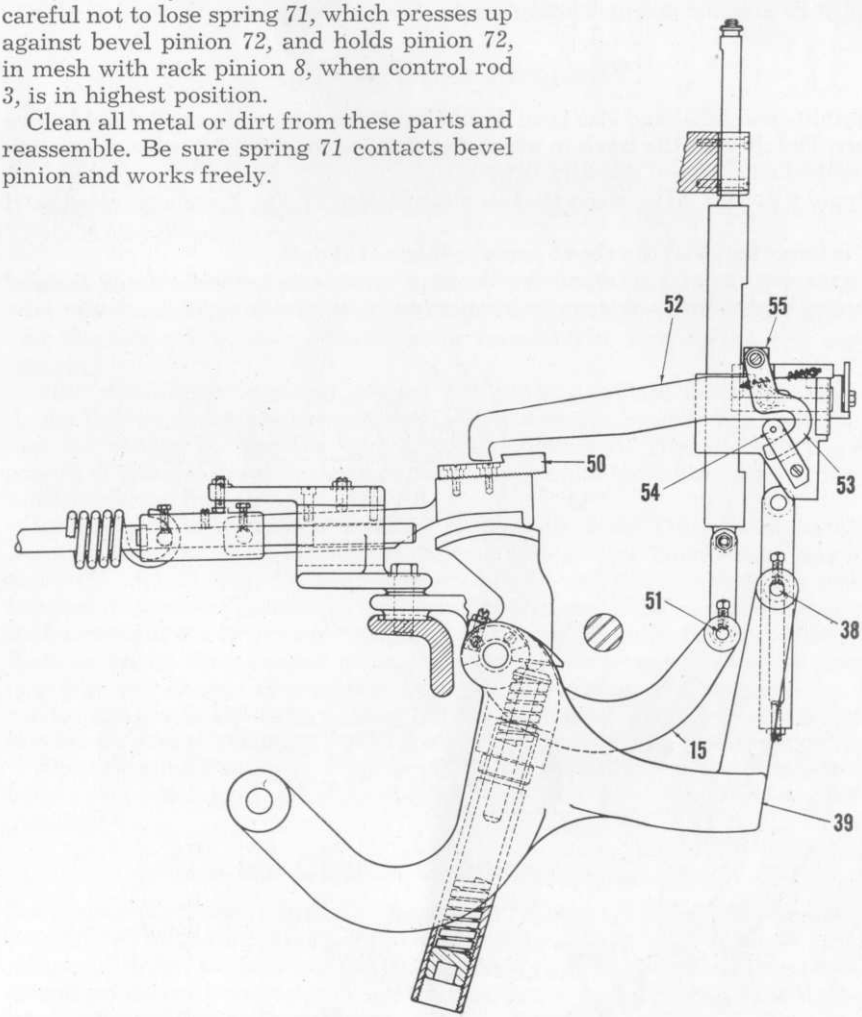


FIG. 12. View showing the mechanism for applying the extra pressure to the vise jaws after the toggle lock is in the locked position. This extra pressure against the line of matrices assures a tight line.

Cleaning or Repairing First Elevator Jaw

Remove the two first elevator jaw binding screws. Remove line stop from jaws and then first elevator back jaw can be taken off.

To remove matrix detent *23*, Fig. 5, from front jaw, remove screws *24* and pull out plungers and springs *25*. Removal of these parts will allow detent to come out of jaw. Recessed in the jaw will be found two springs which press against the detent shoes that are attached to detent *23*. As all parts are now removed, the front jaw can be cleaned.

Reassembling these parts, you first place springs back in recesses, then push detent *23* back against these springs. Then return plungers and springs *25* to their place and test detent. The detent must work freely.

Vise Jaws and Vise Cap

The right- and left-hand vise jaws should be cleaned every day and should move freely. To lubricate the track in which the vise jaw blocks slide, use a clean cloth dampened with a good grade of light oil.

Apply a drop of oil between stud on safety detent *31*, Fig. 7, and operating pawl *30*.

It is important that the above parts be lubricated daily.

To remove vise cap for repairs or cleaning, remove first elevator from vise and vise jaw wedge bracket; remove supporting plate under right-hand vise jaw;

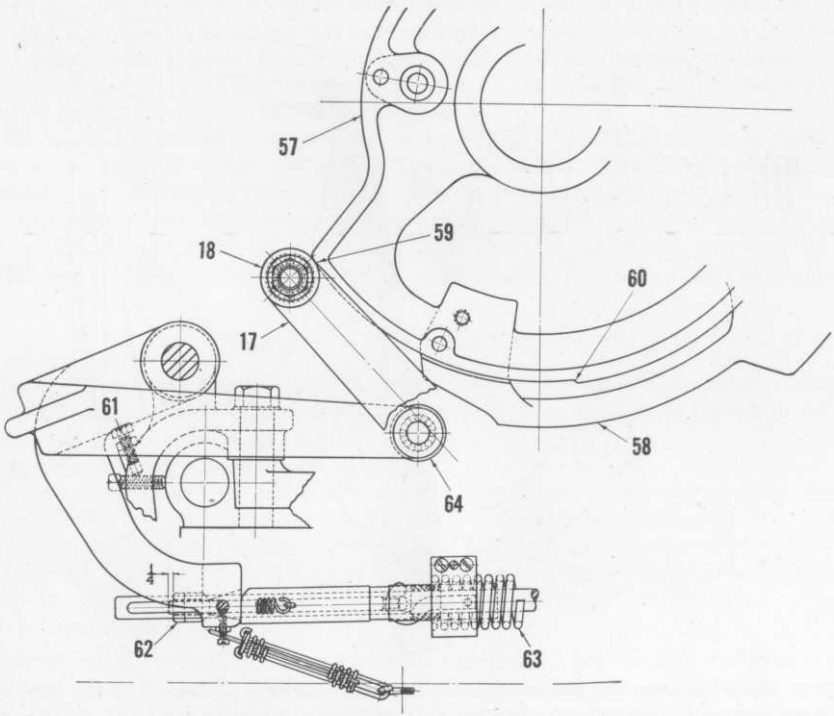


FIG. 13. View of the locking toggle and auxiliary locking toggle cams and levers.

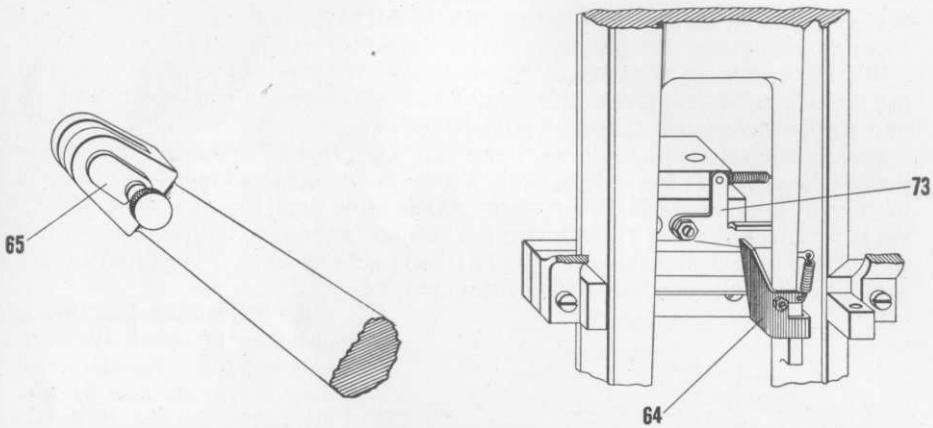


FIG. 14. View showing the toggle lock releasing mechanism and the first elevator lever link hinge pin. The releasing latch *64*, which is attached to the first elevator slide contacts the locking toggle release lever *73* to release the toggle lock, thus allowing vise jaws to return to normal position.

remove four screws from vise cap, then cap can be lifted up and off vise. However, if the track on which the vise jaw blocks slide has received daily attention and the jaws move freely, it will not be necessary to remove the vise cap for cleaning.

After cleaning or repairing, replace vise cap and replace the four screws but do not tighten down these screws until vise jaw wedge bracket has been applied and the screws holding the wedge bracket tightened. Then tighten the four screws in vise cap. Replace support plate under right-hand vise jaw and replace knife block and first elevator slide.

Lowering Vise to Second Position to Remove Mold Disk from Machine—Advance machine to let first elevator down on vise cap. Then loosen screws in levers *39* and *15*, Fig. 12, and remove studs *51* and *56*. The vise can now be lowered into second position to remove mold disk and slide. In replacing, be sure that screws in the levers are tightened down on the studs. It is important that these levers be disconnected when lowering vise to second position to prevent breakage and change of adjustment. To call attention to the necessity for disconnecting the levers before lowering vise to second position, the vise frame rest has a cotter pin through it, which must be removed to allow lowering of vise.

When cleaning the device with an air hose it has been found good practice to hang a piece of canvas or heavy paper behind the vise to shield the rest of the machine.

Manual Control of Spaceband Driver

The arrangement shown in Fig. 15, consists of two stops, *105* and *106* whose action is controlled by the movement of the shifting lever *2*. This mechanism permits the spaceband driver to rise when the machine is used as "Regular" and prevents the spaceband driver from rising when the machine is being operated for right- or left-hand quadding and centering.

When operating as "Regular," the selector handle is in the position as shown in Fig. 15. The extension *107* on shifting lever *2*, is pushed inward disengaging the vise jaws from the vise jaw control rod. This action, by means of a suitable link-

age arrangement moves the stops *105* and *106* out of the path of the sleeve *79* and collar *80*, permitting the spaceband driver to rise for spaceband justification.

When operated for "R.H. Quad." the extension *107* is pulled outward, connecting the left-hand vise jaw to the control rod and moving the stops *105* and *106* into position to prevent the spaceband driver rising.

Moving the selector handle to "Cent." or "L.H. Quad." automatically causes the left-hand side of the shifting lever *2* to be forced outward in correct position to prevent the spaceband driver rising. At the same time, the right-hand side of the lever *2* moves inward connecting the vise jaw or jaws to the vise jaw control rod. The outward movement of the left-hand side of lever *2* is caused by the action of the lower portion of plate *103* on pin *102*.

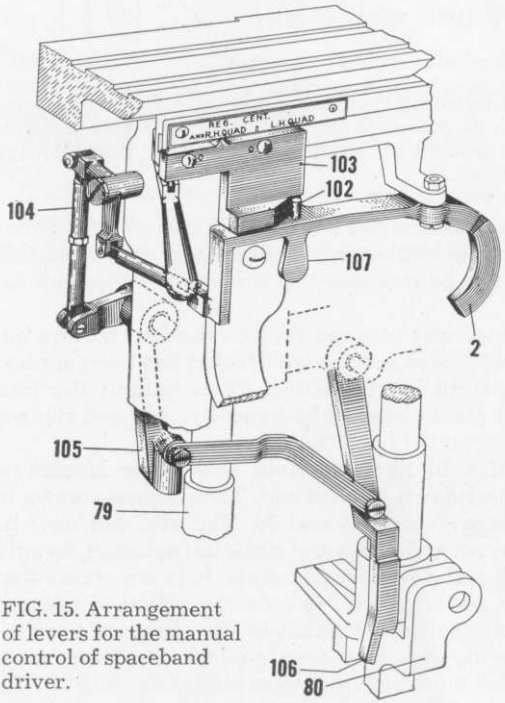


FIG. 15. Arrangement of levers for the manual control of spaceband driver.

An adjustable link *104* is provided to locate the stops *105* and *106* correctly when they are in position to prevent the spaceband driver rising.

Adjustment of Mold Cam Lever Eccentric Pin

To adjust mold slide so that there is proper clearance between the face of the mold and matrices when justification takes place, the mold cam eccentric pin *92*, Fig. 16, must be adjusted when cam roll *91* is on the section of mold slide cam marked *83*, which is the highest point of cam. When cam roll is on *83*, and when eccentric pin is properly adjusted, the space between the face of the mold and the vise jaws or matrices should not be less than .003″ or more than .005″. This must be determined by using a thickness gauge.

Before making the adjustment of eccentric pin, it will be necessary to release the pressure of the pot lever spring. This is done by removing lock nut *84* and *85*, wing pin *86* and eyebolt *87*, as shown. Lock nuts *89* and *90* must not be disturbed.

When the adjustment is made, restore parts *84*, *85*, *86* and *87* to original position, taking care that space *88* is approximately $\frac{3}{16}$ of an inch when pot is in casting position.

Adjustment of "Resilient" Mold Cam Lever

For machines having the resilient mold cam lever, Fig. 17, instead of the solid cam lever, the screw *100* is used to adjust the mold slide so that there is proper clearance between the face of the mold and matrices when justification takes

place. This adjustment is made when cam roll *91* is on section of mold slide cam marked *83*. When screw *100* is properly adjusted, the space between the face of the mold and the vise jaws or matrices should be not less than .003″ or more than .005″. This must be determined by using a thickness gauge. Lock nut *101* should be tightened securely after adjustment. Make certain that screw *100* does not turn while lock nut *101* is being tightened.

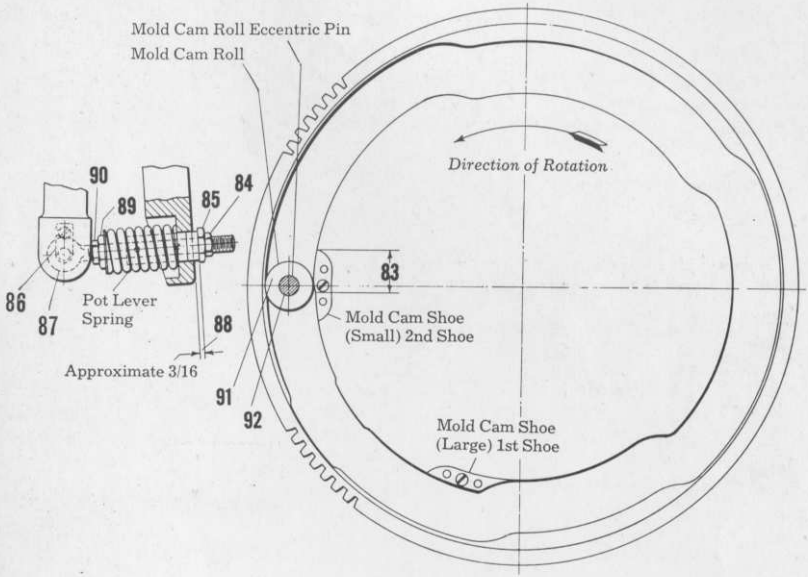


FIG. 16. View of the mold cam and driving gear when standing at right-hand side of machine, showing the mold cam roll and eccentric pin. The eccentric pin and roll are part of the solid type of mold cam lever and the eccentric pin is used to make the adjustment for the proper clearance between face of mold and matrices when justification takes place.

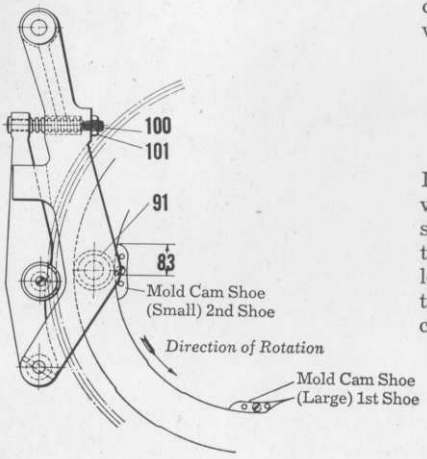
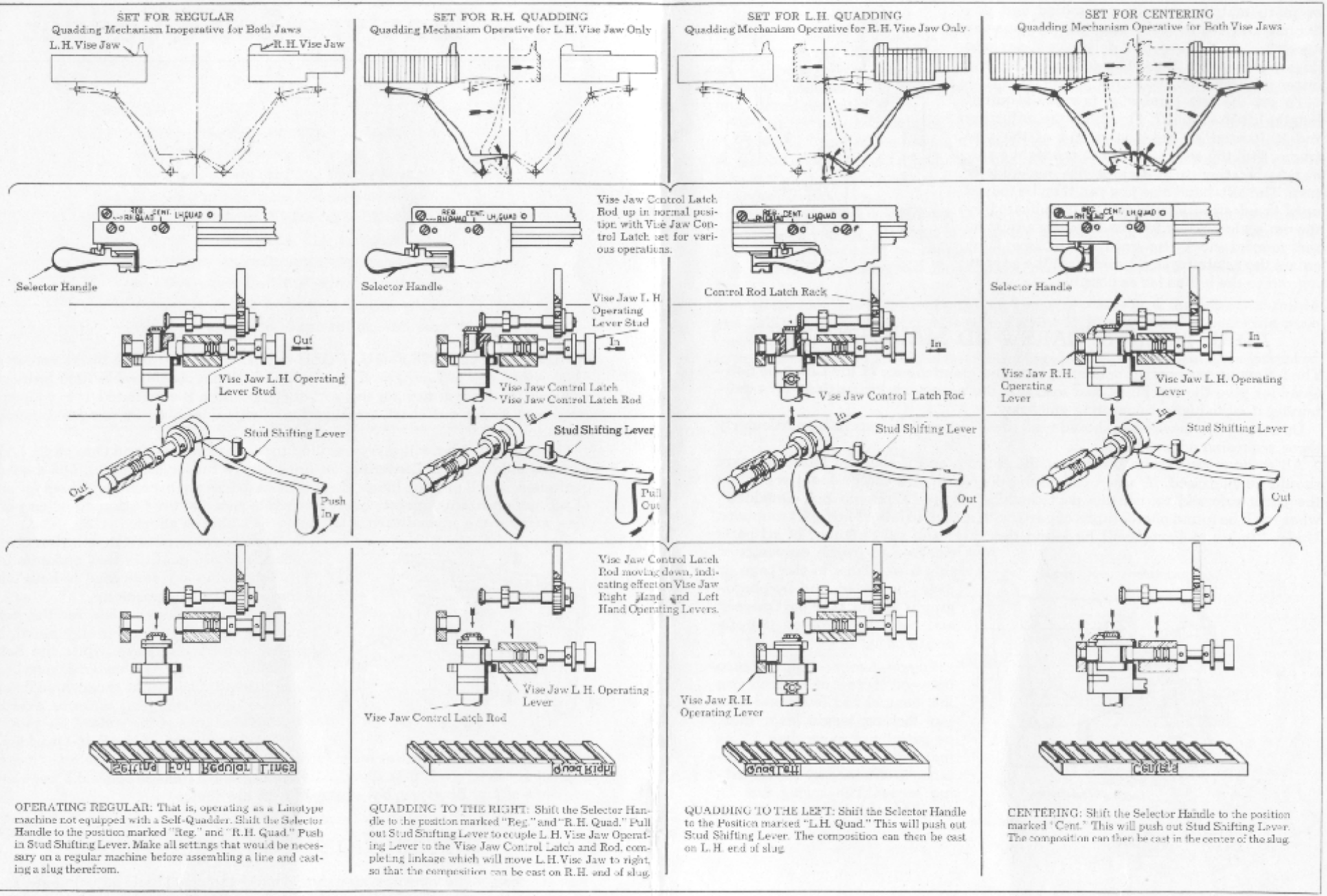


FIG. 17. View of the mold cam and driving gear when standing at right-hand side of machine, showing the resilient mold cam lever in position. For machines having this type of cam lever, adjustment for the proper clearance between face of mold and matrices when justification takes place is made by screw *100*.

MERGENTHALER LINOTYPE COMPANY

BROOKLYN 5, NEW YORK

Printed in U. S. A. 622.14.1-E-00-3X



OPERATING REGULAR: That is, operating as a Linotype machine not equipped with a Self-Quadder. Shift the Selector Handle to the position marked "Reg." and "R.H. Quad." Push in Stud Shifting Lever. Make all settings that would be necessary on a regular machine before assembling a line and casting a slug therefrom.

QUADDING TO THE RIGHT: Shift the Selector Handle to the position marked "Reg." and "R. H. Quad." Pull out Stud Shifting Lever to couple L. H. Vise Jaw Operating Lever to the Vise Jaw Control Latch and Rod, completing linkage which will move L. H. Vise Jaw to right, so that the composition can be cast on R.H. end of slug.

QUADDING TO THE LEFT: Shift the Selector Handle to the Position marked "L.H. Quad." This will push out Stud Shifting Lever. The composition can then be cast on L. H. end of slug.

CENTERING: Shift the Selector Handle to the position marked "Cent." This will push out Stud Shifting Lever. The composition can then be cast in the center of the slug.

Instructions for operating the Linotype Self-Quadder with views showing the position of the vise jaw control rod latch with respect to position of selector handle.