

CHAPTER 16

The Galley and Slug Lever

VARIOUS TYPES of galleys may be used on the Linotype, including the vertical galley, used on the earlier machines; the reversible galley, used for English and Hebrew composition; and the inclined galley.

VERTICAL GALLEY WITH VERTICAL SLUG LEVER

The vertical galley 5, as shown in Fig. 1-16, fits directly behind the first elevator slide 1, mounted on the two button-head screws 2, which are fastened to the vise frame 3. The galley slide 4, against which the slugs are stacked, is moved along by action of the slug lever 6, as the slugs are ejected. A lug on the slug lever 6 carries an adjusting screw 11 which is used to control the stroke of the slug lever 6. A push rod 7—operated by a small roller 8 mounted on the first justification rod collar 9—pushes the slug lever 6 to the right, out of the path of the slug being ejected, by the downward movement of the collar 9. The vertical motion of the collar 9 is actuated by the first justification lever. The first justification cam is so

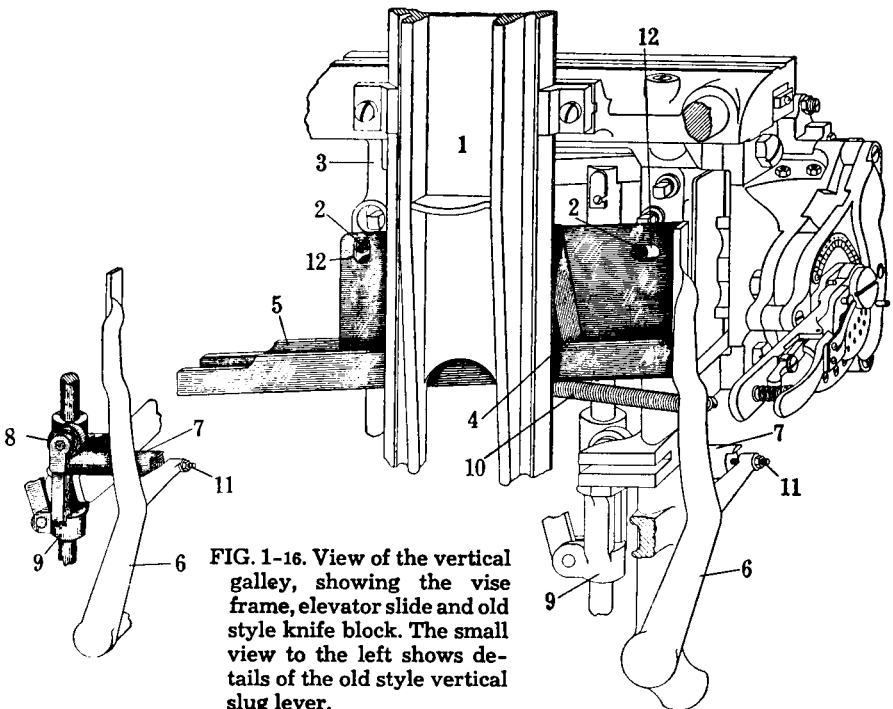


FIG. 1-16. View of the vertical galley, showing the vise frame, elevator slide and old style knife block. The small view to the left shows details of the old style vertical slug lever.

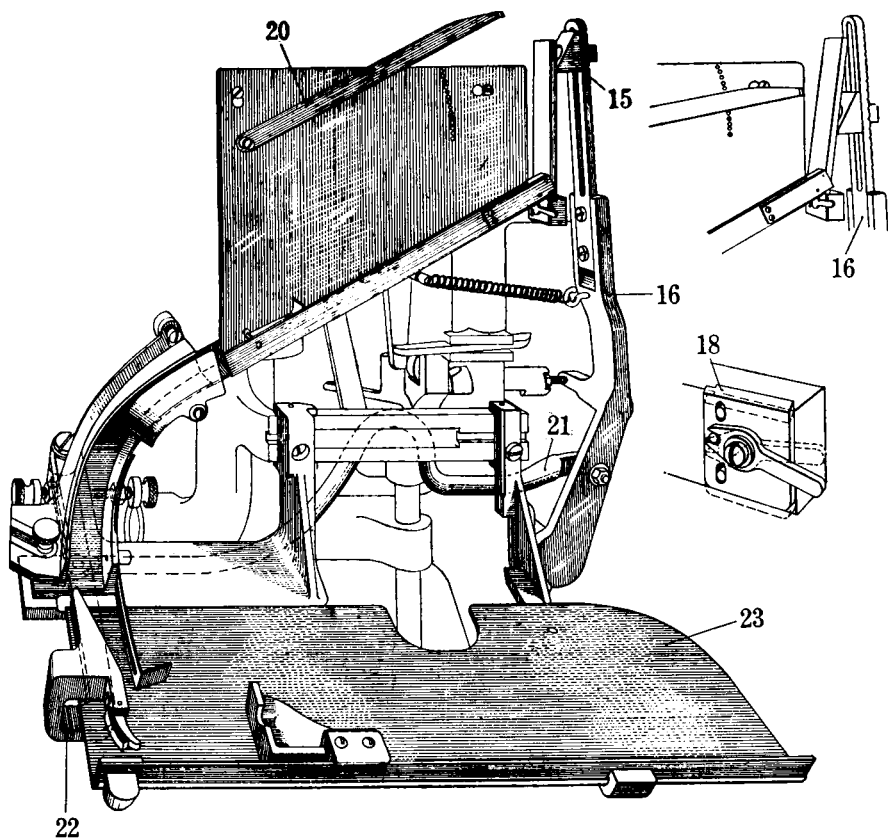


FIG. 2-16. View showing details of the reversible galley. The large view shows the galley with certain of its adjustable parts set to stack slugs of English composition. The smaller view at the upper right shows those parts set to stack slugs of Hebrew composition. An enlarged view of the trip block is shown at the right center.

When stacking slugs of English composition, the tripping piece 18 on this block must be projecting up into the path of the bottom end of the slug so that the extension block 15, then adjusted to an upper position on the lever 16, will act against the ribbed side of the slug and cause it to fall over toward the left with its smooth side downward. The slug adjuster 20 must be up out of the way of the slug.

The lever 16 is connected by the link 21 to another lever 22, adapted to jog the slugs along toward the right on the main section 23 of the galley.

When stacking slugs of Hebrew composition, the tripping piece 18 must be down so as not to be in the path of the bottom end of the slug. The extension block 15 must be adjusted lower down on the lever 16, and the slug adjuster 20 must be lowered so that its end will be in the path of the smooth side of the slug somewhat higher up than the contact point of the extension block 15 against the ribbed side of the slug. When the lever 16 is moved toward the left the slug is therefore tipped so that its ribbed side will be downward against the inclined surface of the vertical section of the galley.

More detailed information is available in the Linotype Company mailing sheet No. 329.

shaped as to allow the roll 8 to clear the top of the push rod 7 as shown to the left in Fig. 1-16. When the cam revolves, it causes the justification lever to press down on the collar 9 to bring the roll 8 in contact with the push rod 7, forcing the slug lever 6 out of the path of the slug being ejected. The shape of the justification cam then allows the slug lever to be returned to the left to push the slugs along the galley by action of the spring 10.

The two elongated holes 12 allow the galley to be removed without removing either of the screws 2. The end of the adjusting screw 11, where it comes in contact with push rod 7, should be oiled frequently; otherwise, a depression is apt to be formed in the end of the push rod, and will interfere with smooth operation of the slug lever. The bearing surface of the push rod should also be oiled.

REVERSIBLE GALLEY

The reversible galley is applied to Linotypes on which both Hebrew composition and English composition are produced. It is designed primarily for stacking slugs of Hebrew composition and, when so used, the position of certain of its adjustable parts causes the slug, as ejected normally vertically, to be tipped somewhat to the right so that the ribbed side of the slug is brought downward in contact with the inclined surface of the vertical section of the galley.

When this galley is used for stacking slugs of English composition, the adjustable parts are positioned so that they cause the slug to be tipped to the left through an angle of more than 90 degrees so that the smooth side of the slug is brought downward in contact with inclined surface of vertical section of the galley.

Therefore, when slugs of English composition are stacked on the main section of the galley, they will be properly assembled with their smooth sides toward the right and therefore with the first character in each line toward the front of the machine next to the raised edge of this galley, so that printed matter from them will read correctly from left to right and downward on the page. Also, it can readily be seen that slugs of Hebrew composition will be stacked on the main section of the galley with their ribbed sections toward the right and with the first character in each line toward the rear of the machine, so that printed matter from them will read from right to left, and downward on the page. Of course, it is also necessary for the Hebrew characters to be punched in reverse on the matrices, compared to the English characters.

INCLINED GALLEY WITH OLD STYLE SLUG LEVER

The inclined galley shown in Fig. 3-16, is supported on two brackets 13, which are fastened to the vise frame 3, and is quickly and easily removable and replaceable. In passing from the knife block to the galley, the slugs slide through a chute, the left side of which is formed by a part of the casting and an adjustable finger 36 on the right-hand galley bracket 13 and the right side of which chute is formed by the lower end of the knife block right-hand slug plate 37. While sliding to the galley the slug face comes in contact with the leather-lined surface of the slug adjuster 34, which hangs down loosely, supported by a hinge fastened to the vise frame by a small screw. The slug adjuster serves to give the slug somewhat more than a quarter turn, so that it passes into the galley face upward, and is shortly afterward jogged along by the slug lever to make room for the next slug.

The action of the slug lever as shown in Fig. 3-16 is the same as described previously with the vertical galley, except for a change in its shape to conform to the change in the position of the galleys.

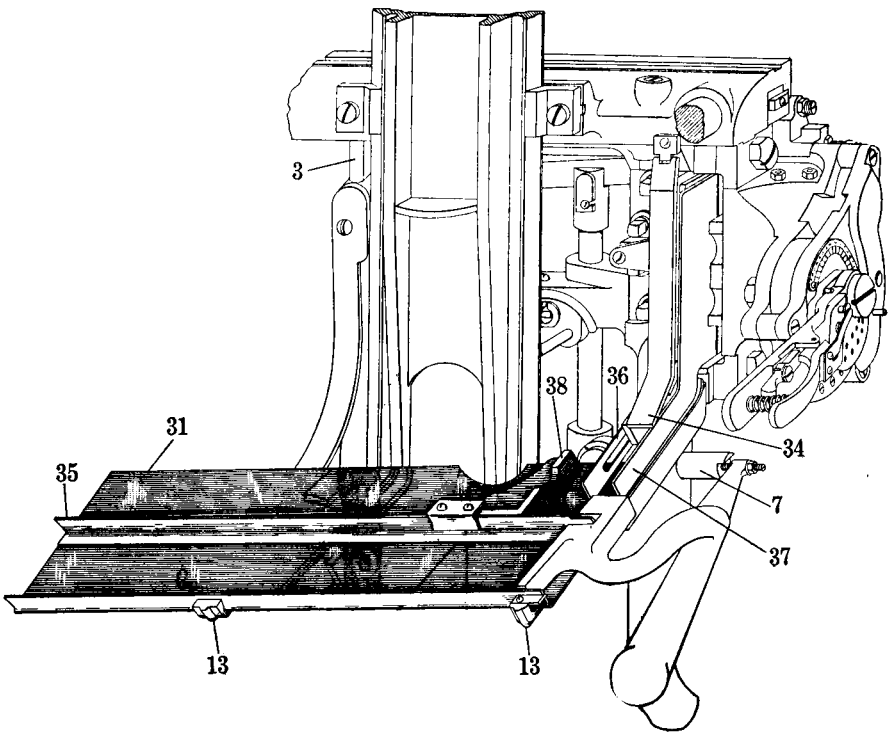


FIG. 3-16. View of inclined galley, showing old style knife block, and old style slug lever. The galley, 31, is mounted on two brackets 13, which are fastened to the vise frame 3. The slug adjuster, or "buffer," 34, causes the slug to slide downward to the galley with its face upwards.

When the slugs are short, a secondary stop strip 35, is used. There is an adjustable finger 36 which forms part of the left side of the chute through which the slugs pass. The right side of the chute is formed by the slug plate 37. 38 is the galley slide.

INCLINED GALLEY WITH NEW STYLE SLUG LEVER

The inclined galley as shown in Fig. 4-16 is the same as the galley shown in Fig. 3-16. However, a new style slug lever has been adopted for later machines.

The slug lever 39, shown in Fig. 4-16, is operated from the first elevator slide 1 by means of the cam 40, attached to the slide. The cam 40 engages the sliding piece 41 on the end of the connecting rod lever 42, which, through the connecting rod shaft 43 and the connecting rod 44, operates the slug lever 39 to push the slugs to the left along the galley.

The sliding piece 41 is pivoted on the end of the connecting rod lever 42 so that when the machine is in normal position the tip 45 of the sliding piece 41 rests against the solid front surface of the cam 40. As the first elevator slide moves downward to the casting position the cam 40 is carried clear of the sliding piece 41, which then pivots so that the projection 45 on the sliding piece is in position to be engaged by the cam 40 as the first elevator moves upward after the cast. This movement of the cam 40 against the sliding piece 41 causes the connecting rod lever 42, through the connecting rod 44, to move the slug lever 39 to the left

against the slugs. As the first elevator slide 1 returns to normal position, the projection 45 on the sliding piece 41 is forced out of the path of the descending cam by the horizontal surface of the cam 40 so that the tip 45 of the sliding piece comes to rest against the solid front surface of the cam.

The sliding piece 41 carries two studs 54 which bank against the connecting rod lever 42. The studs 54 allow the sliding piece 41 to turn only until the projection 45 is in position to be engaged by the operating cam 40 as it moves upward, then holding the sliding piece 41 rigid to operate the slug lever 39.

The upward travel of the first elevator slide 1, on which the cam 40 is mounted, is greater than the movement necessary to be imparted to the slug lever 39 against the slugs in the galley. Therefore, the cam 40 is so positioned, and of such a shape and length, as to allow the projection 45 on the sliding piece 41 to ride off the lower end of the inclined edge of the cam 40 when sufficient movement of the

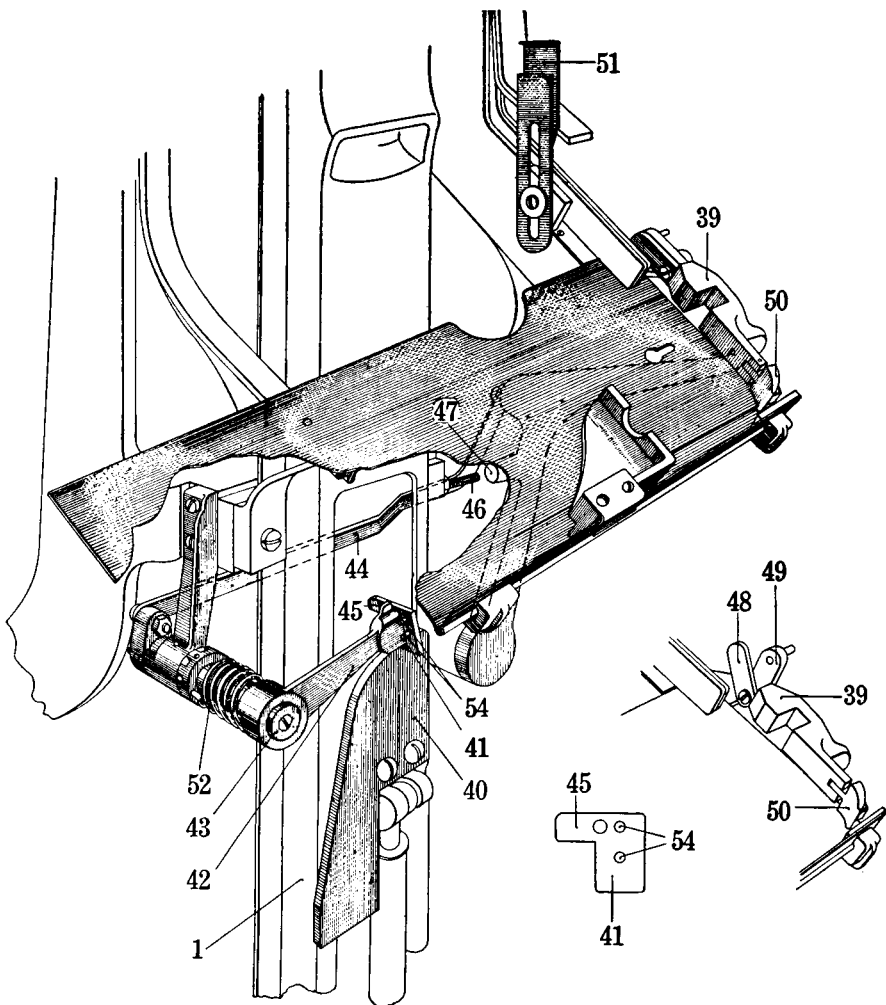


FIG. 4-16. Showing details of the new style slug lever with inclined galley.

slug lever 39 in stacking the slugs has been accomplished. The slug lever 39 then returns by its own weight to its right-hand position out of the path of the slugs being ejected, as cam 40 is carried past sliding piece 41 on its upward travel.

The movement of the slug lever 39 to the left is controlled by an adjusting screw 46 extending from vise frame against which lug 47 on slug lever banks.

The right-hand, or backward, movement of the slug lever 39 may be regulated by two graduated stop blocks 48 and 49. When casting very short measure slugs, in small point sizes, both stop blocks can be used behind the slug lever, limiting its travel to prevent the short slugs from twisting in the galley. For ordinary composition, only the block 49 is used behind the slug lever; and for display matter both blocks 48 and 49 are thrown out of operation, allowing the slug lever to move its full stroke backward, against the bracket on which the stop blocks 48 and 49 are mounted, and out of the path of the largest slugs cast.

The stop blocks 48 and 49 are pivoted on the small bracket mounted on the right-hand galley bracket, and may be instantly thrown in or out of operation as required. The spring-hinged projection 50 on the lower end of the slug lever 39 serves as a buffer to prevent possible battering of the slugs when being ejected into the galley and also improves the stacking of recessed slugs.

An auxiliary adjustable finger 51, somewhat longer than the regular finger, is to be used when casting very short measure slugs, preventing them from turning as they slide into the galley.

The spring 52 on the connecting rod shaft 43, acts as a safety to prevent possible damage to the mechanism; allowing an overthrow movement between the slug lever 39 and the sliding piece 41.

MAINTENANCE

The Slug Adjuster—On all the later model Linotypes, the slug adjuster 34, Fig. 3-16, is adjustable by means of an elongated slot through its upper end where it is fastened to the vise cap. This adjustment allows the adjuster to be set at will for best results in stacking all sizes of slugs.

The slug adjuster has on its inside surface a leather buffer with which the face of the slugs come in contact as they are ejected. This leather should be examined occasionally for wear and if ridged, or worn through, should be replaced. The maintenance of this leather in good condition will prevent possible damage to the type face or interference in ejection.

Inclined Galley—The inclined galley 31, Fig. 3-16, is held in place on the machine by means of the small stud in the left-hand galley bracket 13 which engages a hole in the surface of the galley. If either the stud should be rounded or the hole in the galley enlarged through long use or carelessness in removing and replacing the galley, the parts should be peened to maintain a snug fit. This will prevent the galley from being dislodged and spilling stacked slugs.

The galley itself should be handled with reasonable care to prevent its being bent out of shape or the scarring of its surface, which should be perfectly smooth for best results.

The slugs will sometimes leave a slight metal deposit where they pass over the curved steel chute under the slug buffer 34, and the slugs will hesitate when sliding into place on the galley. To remedy this, dampen a rag with oil and rub it over the surface of the chute. This will be found preferable to graphite.

The tension on the galley slide 38 must not be so great as to prevent it from sliding freely along the galley as the slugs are ejected.