

## CHAPTER 7

### Assembler Slide

**M**OUNTED ON THE face plate, as shown in Fig. 1-7, is the assembler slide. The slide serves as a yielding support for the line of matrices as they are being forced into the assembling elevator by the star wheel. It serves also to indicate to the operator when the composed line has been filled to a point previously determined upon by the setting on the slide of a block known as the assembler slide clamp.

The assembler slide is mounted to move very freely. Its movement to the left is always under the restraint of a clock spring which is just strong enough to return the slide quickly to the right, back to its starting place, upon the release of a brake by the last part of the upward movement of the assembling elevator; or to return the slide any shorter distance upon manual release of the same brake, until the last matrix of the composition desired to be left in the line by the operator is brought back to the right against the star wheel. This condition occurs when the operator has removed from the assembling elevator one or more matrices assembled in error or otherwise.

The brake, or lock, is mounted on the face plate and it does not perceptibly retard the movement of the assembler slide towards the left, but is designed to hold the slide just where it was positioned by the action of the star wheel against the side of the matrix just assembled. Thus, it allows the matrices to stand upright and prevents the slide from moving back toward the right each time a hollow portion of the star wheel, in its revolution, passes the side of any matrix which has just been assembled in the course of the composition of a line. In other words, it prevents vibration of the assembler slide, as the star revolves.

The locking mechanism consists of a lever 3, two blocks 4, and a spring 5. The spring 5 is fastened to the lower part of the lever 3, and tends to bind the blocks 4 on the assembler slide 1. As the matrices are assembled by the star wheel against the finger 2, the assembler slide is moved along, the blocks 4 yielding slightly and allowing the slide to travel forward.

Mounted on the face plate is a lever 6 adapted to trip the lever 3 so as to free the assembler slide from the action of the blocks 4 on it, and allow it to be pulled backward freely by the clock spring 22. The end of an adjustable set screw 8 on lever 6 is acted upon by the right-hand end of a lever 7, which lever is fulcrumed at 23. When the assembling elevator is in position to receive matrices, it rests on top of the left-hand end of operating lever 7 and holds the right-hand end out of contact with the adjusting screw 8.

When the assembling elevator is raised to send a line of matrices to the casting mechanism, a projection on it raises the left-hand end of elevator lever 7, thereby causing the right-hand end to press down on the lever 6, through the adjusting screw 8. The vertical arm of lever 6 pressing against lever 3, pushes lever 3 a short distance so that the blocks 4 do not press against the assembler slide, thus releasing it to the action of the clock spring 22.

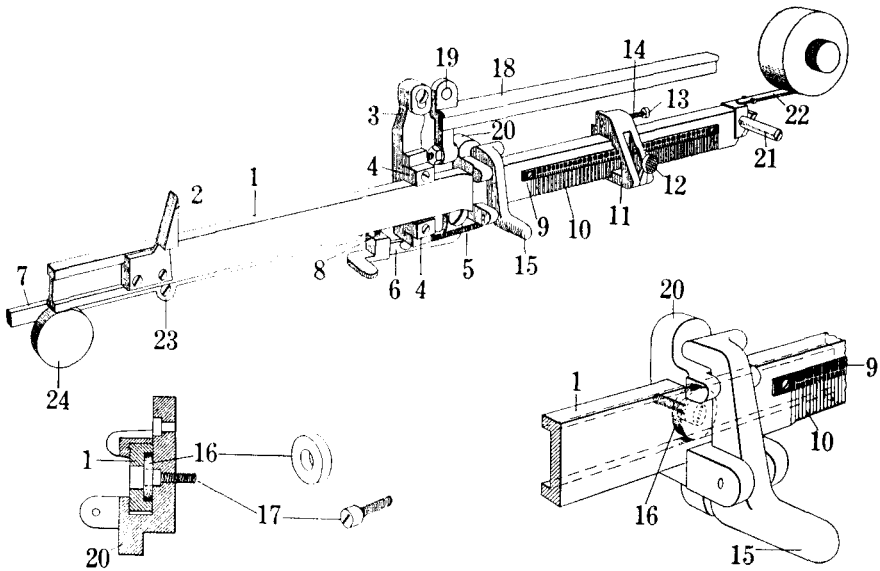


FIG. 1-7. View of the assembler slide and related parts.

It should be noted here that, on the back of elevator lever 7 there is a friction spring acting against the surface of the face plate. The friction is strong enough to overcome the pull of the brake spring 5 which also presses the adjusting screw 8 on lever 6 against the lever 7. Therefore, when the assembling elevator is raised the assembler slide is not freed from the lock until the line of matrices has been lifted well above the assembler slide finger 2; and also, the lock is not again brought into action until the final portion of the downward motion of the assembling elevator—thus allowing considerable time for the return motion of the assembler slide, and making a strong spring unnecessary.

The hand lever 18, fulcrumed at 19 is for manual release of the lock, when required as previously stated.

Near the right-hand end of the assembler slide is a scale 9 divided into ems and ens; and teeth 10 are cut in the slide immediately below this scale. These teeth are six points (one-half of a pica em) apart, to agree with the scale. Mounted movably on the slide is a block 11, called the assembler slide clamp. This block carries a finger piece 12, which has on it several teeth to fit the toothed portion of the assembler slide. Finger pressure on 12 unlocks the clamp so that it can be set where desired on the scale 9. Mounted in the top of the clamp block 11 is an adjustable set screw 13 with a lock nut 14, which with the block 11 serves as a finely adjustable stop for the forward motion of the assembler slide. This screw 13 is adapted to strike against the side of the lever 15 which is held in the jaws of a bracket 20 on the face plate. The bracket 20 also serves as a guide for the assembler slide and to hold the anti-friction roller 16 on stud 17 which bears the weight of the right-hand portion of the slide. A touch upon the handle on lever 15 moves the side of this lever out of the path of the adjustable set screw 13 on the clamp block 11. This makes it easy to remove matrices from an overset or "tight line." The roller 24 supports the assembler slide at the left. The handle 21 is for manually moving the slide to the left.

## MAINTENANCE

To have the assembler slide function properly, the following items should be given careful attention: the brake with the blocks, the brake spring, the return spring, and the brake releasing lever; also check for wear on the assembler slide proper, particularly on its sides where the brake blocks act.

Referring to Fig. 1-7, the two brake blocks 4 should have the corners sharp and square where they come in contact with the assembler slide to prevent it from slipping back when the line is being assembled. It must grip tightly enough to overcome the pull of the return spring; otherwise the slide will "chatter." The blocks are made so that when one corner is worn they may be taken off and turned to bring any one of the edges into operating position.

On the later model Linotypes, the assembler slide brake blocks are made of fibre. These blocks form an efficient gripping surface and like the steel blocks formerly used may be turned to bring any of its edges to operating position.

The tension on the brake spring 5 should be just enough to keep the brake blocks against the slide, but not so tight as to interfere with the free assembling of the line.

The return spring shown at 22, is the type of spring used on all of the later machines. The older models have a lever operated with a coil spring, but the principle is the same in both.

This spring must have tension enough to return the slide when the assembling elevator is raised to its full height, but not strong enough to interfere with the free travel of the matrices as they assemble.

The brake releasing lever 7, which has a flat friction spring on the back, is described previously in this chapter. This spring should be just strong enough to overcome the pull of the brake spring 5 so that when a line has been sent in, the blocks remain open until the assembling elevator has seated on the end of the lever 7. This will allow ample time for the slide to be returned.

If the tension on the brake releasing lever is too strong, it will be harder to trip when the elevator is raised to send in a line, and it will not seat as readily when lowered to the assembling position. It is possible when replacing the friction spring on the releasing lever 7 to give it so much tension that it will force the brake releasing lever so far out it will bind against the assembler slide and interfere with its return.

The adjustment for the return of the assembler slide is made with the screw 8, which banks against the under side of the brake releasing lever, and the distance between should be very slight, to insure the return of the slide.

If the machine has been in use for a long time, the slide may be worn, with high and low spots, and after the adjustment is made it should be tested by moving the slide slowly the entire length of 30 picas to determine whether or not the brake blocks grip at every point of its travel. If there is any slippage, adjust accordingly.

The spaceband buffer should be replaced when badly worn, and the left-hand end of the buffer should be slightly above level rather than too low.

*Lubrication*—The assembler slide should be cleaned with a dry rag, and no lubricant of any kind should be used.

The only part to oil is the shaft of the roll 24 which is under the assembling elevator, and the screw on which the slide return lever moves on some of the older model Linotype machines.