

COLD FORMING OF METALS

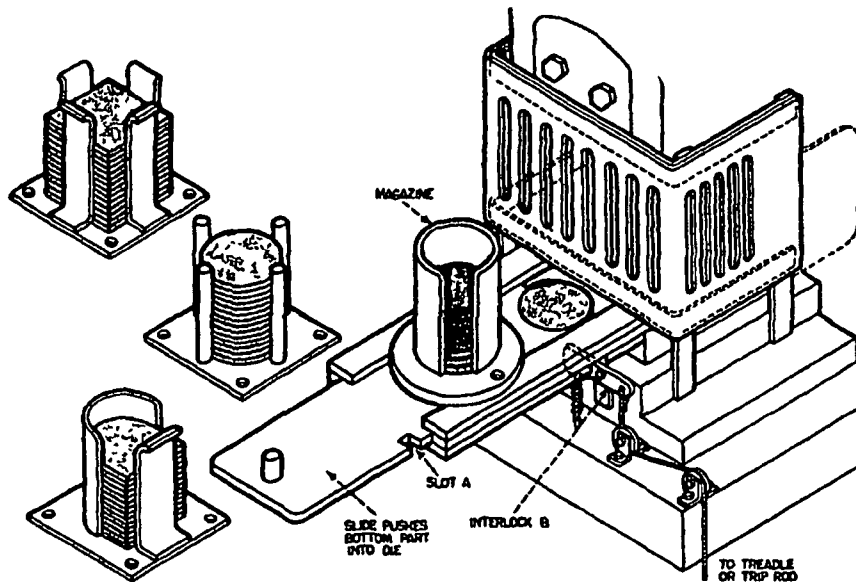


Fig. 23-27: This magazine on a push feed enables the operator to catch every press stroke. Slot "A" in the pusher must be in alignment with interlock "B" before the press can be tripped. This feature assures proper positioning of the part in the die.

Figures courtesy Liberty Mutual Insurance Company

blanks or pieces are fed, one at a time, by a *mechanical plunger* or other device which pushes them under the slide.

Manually operated plunger feeds are used for individual pieces which, because of their irregular shape, will not stack in a magazine or will not slide easily down a gravity chute. Each piece is placed in the nest in the pusher and moved to the die by manual operation of the pusher. To get correct location of the part in the die, an interlock is sometimes necessary so that the press cannot be operated until the pusher has spotted the part accurately (Fig. 23-28).

Slide or push feeds are a variation of the chute feed, combined with magazines and plungers. The pieces are stacked in the magazine. As each piece reaches the bottom, it is pushed into the die by means of a hand operated plunger (Fig. 23-27).

Sliding dies are pulled toward the opera-

tor for safe feeding and then pushed into position under the slide (ram) for the downward stroke. The die may be moved in and out by hand or by means of a foot lever. Regardless of how the die is actuated, it should be interlocked with the press to prevent tripping when the die is out of alignment with the slide (Fig. 23-28), and "stops" should be provided to prevent the die from being inadvertently pulled out of the slides.

Dial feeds consist of two or more nests arranged in dial form. The dial revolves with each stroke of the press, so that the operator can feed the machine safely. The part to be processed is placed in a nest on the dial which is positioned in front of the die. The dial is indexed with each upstroke of the press to deliver the next nested part into the die (Figs. 23-29 and -30).