

COLD FORMING OF METALS

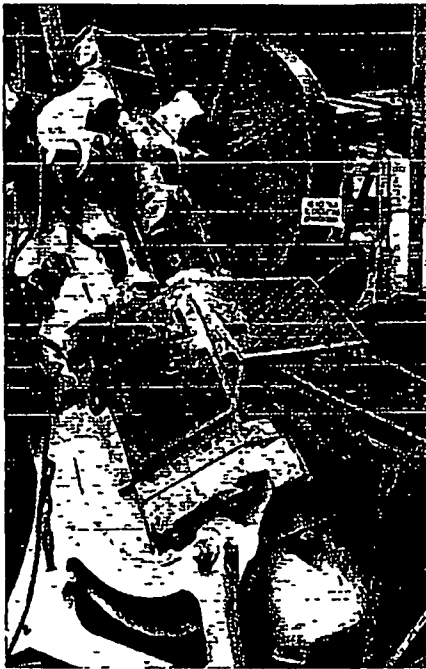


Fig 23-17. There are advantages to inclining a press. The guard is simple and economical to make. This operation (forming pail covers) also permits automatic gravity feed direct from blanking operation (via the belt conveyor). This job could also be hand fed.

Courtesy United States Steel Corp

would take some time to complete or its provision is considered functionally impracticable, or both, an adjustable barrier device can be provided on each press. This type of device can be used on many operations to prevent the operator's hands from entering the point-of-operation zone (Fig 23-18)

The adjustable barrier device requires adjustment for each job or die setup and is not usually interlocked with the press control. Die setters should be instructed to follow the dimensions for permissible openings given in Table 23-A when adjusting the sections of this type of guarding device. The operator should never be allowed to

make changes in the adjustments without the supervisor's approval.

Adjustable barrier devices are available commercially or may be made in the plant. They are attached to the frame of the press and have front and side sections which can be adjusted for dies of almost any size.

This type of device is usually constructed of rod stock or perforated metal. The pivoting or sliding sections should be interlocked with the press control for maximum safety.

Unless ejection is automatic, it may be necessary to leave an opening in the barrier for insertion of a tool to remove the piece from the die. This opening should not be wide enough for a hand or finger to extend into the danger zone (Fig 23-19).

Gate or movable barrier devices These devices are designed to enclose the point of operation completely before the clutch can be engaged.

The clutch is tripped by part of the gate or barrier mechanism during the last $\frac{1}{4}$ in. of travel, or at whatever predetermined height is set. If the fingers or hand or any other obstruction $\frac{1}{4}$ in. or more in height is in the point-of-operation area, the gate

