TABLE 22-A POINT-OF-OPERATION GUARDS (Continued)

Guarding Method	Action of Guard	Advantages	Limitations	Typical Machines on Which Used
(b) Hand pull-away device	A cable operated attachment on ram, connected to the operator's hands or arms to pull the hands back only if they remain in the danger zone, otherwise it does not interfere with normal operation	Acts even in event of repeat Permits maximum hand feeding, can be used on higher speed machines. No obstruction to feeding a variety of stock. Easy to install	Requires unusually good maintenance, adjustment to each operator, and frequent inspection. Limits movement of operator May obstruct work space around operator Does not permit blanking from hand-fed strip stock	Embossing presses Power presses (Some states limit use to presses with a stroke of 3 in or less)
Miscellaneous methods (a) Limited plunger travel	Plunger travel limited to ¾ in or less, fingers cannot enter between pressure points	Provides positive protection Requires no maintenance or adjustment	Small opening limits size of stock	Foot power (kick) presses Power presses
(b) Electric eye	Electric eye beam and brake quickly stops machine or prevents its starting if the hands are in the danger zone	Does not interfere with normal feeding or production No obstruction on machine or around operator	Expensive to install. Does not protect against mechanical repeat Generally limited to use on slow speed machines with friction clutches or other means to stop the machine during the operating cycle	Embossing presses Power presses Rubber mills
(c) Special tools or handles on dies	Long handled tongs, vacuum lifters, or hand die holders which avoid need for operator's putting his hand in the danger zone	Inexpensive and adaptable to different types of stock Sometimes increases protection of other guards	Operator must keep his hands out of danger zone Requires unusually good employee training and close supervision	Dough brakes Leather die cutters Power presses
(d) Special jigs or feeding devices	Hand operated feeding devices of metal or wood which keep the operator's hands at a safe distance from the danger point	May speed production as well as safeguard machines Generally economical for long jobs	Machine itself not guarded, safe operation depends upon correct use of device Requires good employee training and close supervision Suitable for limited types of work	Circular saws Dough brakes Jointers Meat grinders Paper cutters Power presses