

be fitted with a locking device to hold the conveying unit at various fixed elevations

The mechanism for raising and lowering the boom on all types of portable conveyors should be closely checked periodically, it constitutes one of the greatest sources of hazard in the use of such machinery. Any positive type may be used, but the self-walking worm or jack-screw type is preferable. Gear drives should be completely housed and run in oil. All chains within easy reach of workmen should be thoroughly guarded, and a system should be provided for convenient oiling of chains. In warehouses, the boom of portable conveyors usually consists of two sections to permit their use in a small space. These conveyors should be so designed that material will not roll back from one section to the other at the transfer point.

When portable conveyors are used for loading or unloading railroad cars, a suitable safety device should be provided to prevent the car from being shifted during the operation. The device should not be removed until the crew is sure that no one is in the car. A red banner or a standard blue warning sign at each end of the car is recommended as a warning to switchmen. (See the section "Plant Railways" in the next chapter.)

When portable conveyors are used in raising or lowering construction materials, ample stairs or ladders should be provided in the immediate vicinity of the conveyor. Walking on idle or moving conveyors should be prohibited.

Gravity conveyors

The fact that gravity conveyors (Fig 20-34) depend wholly upon the natural force of gravity for their operation often leads to disregard of some necessary safe practices. Even though it is not power-driven, this equipment can be the source of serious accidents.

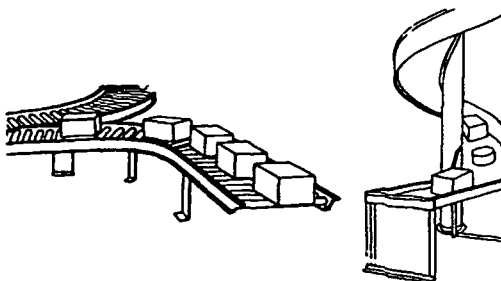
There is real danger if an employee climbs upon a conveyor to release a blockade. He may either slip on the rollers or be knocked down should the jam suddenly be released and strike him. To guard against this hazard, workers should be prohibited from climbing onto conveyors. In addition, steel or wood plates should be installed between rolls that are far enough apart to permit a worker's foot or body to go between them.

Gravity conveyors are divided into two gen-

eral classes—chute conveyors and roller or wheel conveyors.

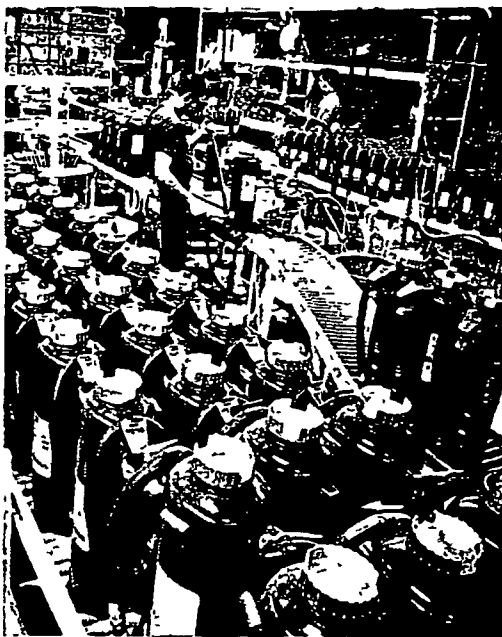
Chute conveyors Chutes of polished metal sheets or bars are used to lower packing cases, cartons, and crates from one floor to another or from the sidewalk to the basement of a mercantile building through a sidewalk elevator shaft or other opening.

The inclined chute may be straight, or it may be straight with a vertical curve of large



Courtesy Conveyor Equipment Manufacturer's Assn

FIG 20-34 — Types of gravity conveyors. Left and below roller conveyor. Right spiral chute.



Courtesy Dow Corning Corp