

floor or raised up according to conditions. It is frequently used in large warehouses where a large number of packages are being handled and is much cheaper in its operation than ordinary trucking. It usually runs at a speed of 100 to 200 feet of travel per minute.

The Beaded flight conveyor is a variation of the apron conveyor. It consists, like the apron conveyor, of two strands of chain to which are attached steel flights which overlap each other and an end piece is often bolted to the end of the flight thus forming a moving steel trough. It is used for handling loose materials such as grain, etc. It is very popular with the cereal food manufacturers for carrying their products through ovens, the speed being timed to roast or bake the grain while passing through the oven a given number of times.

The wire cable conveyor (Fig. 4) is another method used to carry materials over considerable distances. It consists of a wire cable to which are attached cast iron discs running in a suitable trough. The discs are spaced at regular intervals such as 3, 4 or 5 feet and the sheaves at either end are made with gaps to correspond with the spacing of the discs.

Wire cable conveyors are used extensively in pulp and lumber mills and kindred industries to handle lengths of pulp wood—refuse-slabs, etc. Also used in such places as coal mines to retard coal running down inclines or to convey along a horizontal plane or up grades. It is economical for long distances, but not for short distances as the terminals constitute the bulk of the cost. We have them running up to 1,300 foot centres, but more frequently from 300 to 600 foot centres.

Other conveyors used in saw-mill work are the log haul-ups, consisting of a chain made generally of steel or malleable iron, running over guides or supports so that the chain will not sag on the carrying side. To the chain is attached spurs spaced about eight feet apart which catch the log out of the water and haul them up an incline into the mill where they are discharged onto skids or the saw carriage to be sawn into lumber.

Then we have the transfer chain to transfer the lumber from the saw to the various departments for further operations. This consists of malleable chain with a solid roof top and is used to transfer sawn boards around the mill.

There are several forms of saw-dust conveyor, sometimes an ordinary malleable sprocket chain is used with attachments every 12 or 18 inches to which wood slats are attached and these drag along a wooden trough and scrape the saw-dust and refuse to wherever it is necessary to discharge them. Another style to do the same work is an open link chain 6 or 8 inches wide running in a trough which scrapes the material along in the same way.