a pliable belt that clings to the troughing idler pulleys. This belt has no extra cover at its centre, so possesses no particular wear-resisting qualities where the load is the thickest, but does possess increased resisting properties against abrasive wear at the hinged points just outside the limits of the centre pulley. The peculiar shape to the trough when using the "hinged belt" also increases the carrying capacity of the belt to some extent, but the readjustment of load on passing over a flat pulley is correspondingly greater and necessarily the abrasive action of the load in shifting its position on the belt is augmented. Both these patented belts are of necessity more expensive than belts in which the refinements of varying the thickness of rubber cover are not attempted—straight ply belts -and, without disparagement of the patented belts, it is a question whether greater benefit might not be gained by putting the extra money into a straight ply belt with an extra heavy rubber cover of uniform thickness.



Note.—Installations of Belt Conveyers may consist of any combination of the above arrangements and conveyers can frequently be made reversible—*i.e.*, arranged so they be operated in either direction. They also may be loaded at more than one point, can be driven at any point and the Take-Up can be loaded wherever convenient.

Fixed Dumps may be installed on any horizontal stretch of conveyer or inclined stretches may be interrupted for their accommodation.

Traveling Trippers may be installed on any horizontal or slightly inclined stretches of conveyer, may be propelled by hand or be of the automatically traveling and reversing type.

Provision for discharging the load from belt conveyers, other than over the end pulley of the conveyer, necessitates the forming of an "S" in the carrying belt, similar to that required in the return belt for a tandem drive, the load leaving the conveyer as the belt passes over the upper of the two straight pulleys employed to so guide the belt. This discharging arrangement may be mounted on a movable carriage that can be moved from position to position by a hand crank (hand-propelled tripper) or else the motion of the moving conveyer belt may be employed automatically to cause the tripper to travel back and forth over a fixed length of track on which the

tripper is supported (automatic tripper). When it is required to discharge load at only a specified point or at several fixed points in the length of the conveyer, the discharging device is usually made permanent, part of the supporting structure of the conveyer system, and is known as a "fixed dump." By arrangements of chutes and gates, either trippers or fixed dumps may be made to discharge the conveyed load on either side of the conveyer in any desired proportion, and may also be arranged to discharge any proportion of the load to the conveyer belt beyond the particular discharging point for subsequent discharge at some further advanced point.

Belt conveyers carrying wet or sticky materials also require brushes for cleaning the belt at each discharge point. These brushes are usually of the rotary type, constructed of stiff bristles, and are gear- or belt-driven from the conveyer pulley over which discharge of load takes place-rotation of brush being in the opposite direction to that of the conveyer pulley.

(To be continued.)

## COAST TO COAST.

Ottawa, Ont .- "Until the report of Sir Alexander Binnie, founded on his own investigation and those of his engineers, is submitted, I do not propose to give out any information whatever, and anything which may be published in the meantime must be regarded as only conjecture." This was the statement made by Mayor Ellis recently in regard to the water scheme. "I expect to have complete reports upon every phase of the water question ready to submit to council in October," added Mayor Ellis.

Ottawa, Ont .- The appointment of a commission to consider the practicability of the Georgian Bay Canal project will be taken up shortly by the Minister of Public Works. Heretofore the investigations have had reference wholly to the engineering features of the work and the estimate of its cost. What is now proposed is an inquiry into the economic aspect of the project and its probabilities as a profitable proposition.

Windsor, Ont .- Seeking protection from disease or possible contamination of the city's water supply, the members of the Windsor Water Board and Medical Health Officer Ashbaugh have gathered several samples of Detroit River water near the mouth of the intake pipe and in the current flowing directly into the pipes. The samples will be packed and shipped at once to the Ontario Health Board at Toronto for analysis. The water was obtained from near the bottom of the river by means of an especially devised apparatus, consisting of a metal box containing a sterilized bottle. The equipment was lowered to the required depth and the bottle uncorked. While Windsor's water supply is taken from the channel in the river and not from the lake, former tests have shown it to be as pure as any water in the Dominion. Only two samples out of nearly a dozen taken last summer were found to contain the least trace of contamination.

St. John, N.B.-Mr. H. A. Powell, K.C., member of the International Waterways Commission, has left for Grand Falls and vicinity to conduct an investigation into the boundary waters, which, it is understood, have given rise to much serious consideration through their pollution. The idea of the visit of Mr. Powell, who is acting in the interests of both the United States and Dominion Governments, is to investigate the waters with the intention of reporting as to the extent of the pollution, the interest of each country in the matter, and the remedial measures which are deemed necessary with a view to the protection of the health of the dwellers