PROPOSED INCLINE RAILWAY, EDMONTON, ALBERTA.

Description.

Incline situated on First Street between College and Victoria Avenues.

Vertical rise 88 feet.

Length of Incline 230 feet.

Width from line to line 45 feet.

Speed of cars 230 feet per minute.

Capacity, forty teams up and forty teams down per hour, Maximum load 12 tons.

(POWER) 75 horse power electric motor.

(CABLES) working cable 1 $\frac{3}{8}$ inch cast steel, load 12 tons breaking strain 62 tons.

Safety cable 1$\frac{1}{4}$ inch cast steel, load 10 tons, breaking strain 52 tons.

(DIMENSIONS OF CARS). Traffic platform 15 feet wide by 28 feet long, Passenger car 3 feet 6 inches wide by 28 feet long, total width 18 feet 6 inches.

Weight of cars 14 tons.

Width between rails 12 feet.

Depth of pit at foot of Incline 15 feet.

Depth of Motor room below College Avenue 20 feet.

(DESCRIPTION OF HOIST). Main shaft 8 inches in diameter by 25 feet long, two cable drums 8 feet in diameter, 24 inch face.

Main spur 88 teeth, 3$\frac{1}{2}$ inch pitch, 12 inch face.

Pinion 25 teeth 3$\frac{1}{2}$ " " 12$\frac{1}{2}$ " "

First intermediate shaft, 6 inches diameter, 9 feet long.

Gear 64 teeth, 3 inch pitch, 8 inch face.

Pinion 14 teeth 3 " " 8$\frac{1}{2}$ " "

Second Intermediate shaft 4 inches diameter by 16 feet long, carrying two cut gear wheels, each with 86 teeth, 2 inch pitch 4½ inch face. Motor pinions carry 25 teeth, 2 inch pitch 4½ inch face.

This shafting also carries two 48 inch friction wheels 8 inch face, one for hand power, the other for an air brake equipment.

SAFETY DEVICES.

1st. (Safety Cable) One end of cable is attached to Car No. 1; passes upand around three 72 inch sheave wheels, down again and end attached to Car No. 2, the three shaeve wheels are mounted horizontally, the two outer ones being fixed, the centre sheave is mounted on a carriage and has a travel of eighteen inches, this carriage is weighted back sufficnetly to keep the Cable in tension. If the working cable should part, the entire weight comes upon the safety cable, over-balancing the tensional weight and driving the carriage forward, immediately setting the lever cable grips, cutting off the power and setting the air brakes on Hoist.

2nd. Is an automatic trigger or lock, located between the tracks at top of Incline as Car No. 1 approaches the platform the trigger locks on a projecting bracket attached to the car at the same time throwing out an overhead switch in pilot house this prevents the attendant from reversing while Car (No. 1) is locked. In re-closing the over head switch the trigger on Car (No. 1) is released and the lock set for Car No. 2 and repeats.

3rd. Consists of a switch in Ticket Office at foot of Incline

this switch automatically opens at the completion of each trip, opening the Motor Circuit, and preventing the operator from starting the hoist until the attendant at foot of Incline is ready, and closed his switch, the closing of this switch also throws on a red light in Pilot House giving the signal to start. If the operator wishes to start he signals the attendant at the foot to close this switch.

4th. Consists of four automatic safety gates two at top and two at bottom of Incline. These gates open and close as the cars approach and leave the platform.

5th. Consists of an automatic lock for passenger gates on cars, locking and unlocking gates at the start and completion of each trip, these locks are concealed so that the passengers cannot handle them.

6th. Consists of four Air Buffers or brakes situated at foot of incline. This device helps to make a gentle landing thus preventing accident from sudden jar.

7th. Consists of four chains fastened to ring bolts in centre of traffic car, these chains are adjusted by the attendant on the wheels of the cars, thus preventing them from moving during trip.

8th. Consists of Two Lever Hand Power Strap Brakes one on each cable drum. These brakes will only be used in case of emergency and are operated from the Pilot House.

9th. Consists of a Lever hand power strap brake placed on the high speed or second intermediate shafting, this brake will be used to operate the hoist in case the air brake should become defective.

10th.

Consists of a device placed between the tracks at top of Incline, whereby the cars automatically cut off the power and set the brakes on the completion of each trip.