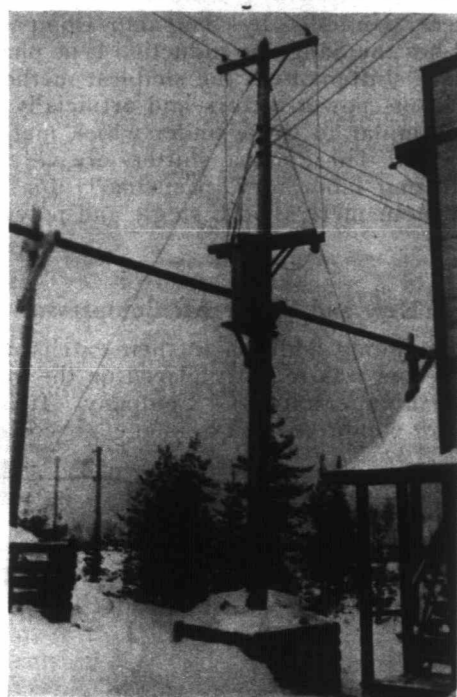


ings are eliminated. The entire assembly is mounted on a compact, rigid sub-base. Cushioned valves assist maximum overall compressor efficiency.

The Motorcompressor is designed for continuous service 24 hours a day. Standard units are built in sizes from 20 to 50 hp., with piston displacements from 113 to 310 cubic feet per minute and for discharge pressures up to 125 pounds gauge. They are suitable for general or stand-by service anywhere, especially where water is scarce, costly, objectionable, or impracticable as in winter service outdoors.

#### At Lamaque Gold Mines

The illustration shows one of the surge-proof distribution transformers supplied to the Lamaque Gold Mines. These transformers have Ferranti surge absorbers installed inside the tanks for protection



against lightning. The manufacturer states that operating experience in many parts of Canada has proved that Ferranti surge-proof transformers are immune from breakdown due to lightning.

The protection is practically independent of the ground resistance and this is very important in mining districts where solid rock renders it almost impossible to get low ground resistance.

#### R&M Bearings

R&M Bearings Canada, Limited, announce that they are opening an office and warehouse at 655 Davie Street, Vancouver. This branch will be under the management of S. Morton, A.M.I. Mech. E., formerly of this company's Montreal office.

#### Diesel Engines for Motor Bus Operation

Associated Equipment Co. of Canada, Limited, 1440 St. Catherine St. West, Montreal, announce that they have recently received several orders for A.E.C. diesel engines, notably an order from the Montreal Tramways Co. for ten complete 6-cylinder high speed engines for motor bus operation. An

order has also been received from the Ottawa Electric Railway Co. for two city service busses completely equipped with diesel engines. One diesel engine has recently been delivered to the B. C. Electric Railway Co., and a diesel equipped chassis for tank service has been supplied to the Shell Oil Co.

#### English Electric Protected Type Motors

The English Electric Company of Canada Limited has recently published Bulletin No. 2000 entitled "Protected Type Motors". The English Electric protected type induction motors are supplied in ratings up to and including 50 hp., 1500 r.p.m., 25 cycle, and 75 hp., 1800 r.p.m., 60 cycle, in standard N.E.M.A. frames. These completely protected motors are suitable for innumerable applications. They are all equipped with SKF anti-friction ball bearings.

#### The Menace of Dust

We have recently received a very interesting booklet entitled "Remove the Menace of Dust", published by the United States Hoffman Machinery Corporation. It deals with the general subject of dust hazards in industry and explains in a clear, pictorial fashion the new Hoffman heavy duty vacuum cleaning equipment. Copies may be obtained from the company at 105 Fourth Avenue, New York, N.Y.

#### Johnson-Turner Electric Repair and Engineering Company

The Johnson-Turner Electric Repair & Engineering Company, an organization for rewinding and rebuilding motors, generators, starters, transformers, etc., established some fourteen years ago, has shops in Walkerville and London, both thoroughly equipped for the rebuilding of large or small industrial electrical equipment. This company acts as agent for Canadian General Electric motors and also deals in used motors. Their Walkerville address is 178 Walker Road and the London address 317 Wellington St.

#### British Grid Towers

The transmission lines of the British Grid System now cover the whole country, with the exception of the thinly-populated north of Scotland. The line shown by the Aluminum Company of Canada in this issue of Electrical News and Engineering is a 66 kv. line between Dunston and Hebburn, North East England Electricity Scheme. A. C. S. R. cable is used of 0.15 sq. in. section with A. C. S. R. 0.68 sq. in. ground conductors. Normal span length is 700 ft.; total height of tower above ground, 47 ft. 6 in.; vertical conductor spacing, 6 ft. 6 in.; horizontal spacing—top 16 ft. 1 in., middle 21 ft. 4 in., bottom 17 ft. 3 in.; tower size at ground 14 ft. 6 in. x 14 ft. 6 in.; approximate weight above ground, 7392 lbs.

#### Imperial Oil Service

There are many engineers throughout the industry who are experiencing lubrication troubles and problems who may not be aware of the splendid technical service department maintained by Imperial Oil Limited. This large company, with its extensive facilities, manufactures some hundreds of different types of lubricants which are individually made for specific ser-

vice requirements. Imperial's experience in the industrial lubrication field is placed at every engineer's disposal. Communications should be addressed to the Imperial Technical Service Division which is associated with a large research laboratory maintained in Sarnia, Ont., or to the nearest Imperial office.

#### Packard Dry Type Transformers

Packard Electric Company have developed a line of dry-type transformers which are compact, light-



weight and easily installed. Indoor installations do not require fireproof compartments and therefore these efficient units are suitable for many applications in industry.

#### Electrical Apparatus Limited

Electrical Apparatus Limited, Toronto, is moving May 1st from 18 Toronto Street to 74 Wellington Street, West, where larger premises and warehouse space are available. This firm carries the following lines: Haefely static condensers for power-factor correction; Stanley & Patterson Inc. signalling equipment; Eagle Signal Corporation industrial timers; Union Electric Porcelain Works high and low-tension porcelain ware, and also a line of welding equipment.

#### Devoe Electric Switch Co.

Devoe Electric Switch Company, Montreal, will be established in their new offices, 863 St. Maurice Street, Montreal, by May 1st. Their new location is one block directly south of their former offices at 872 Notre Dame St. West.

#### Electrical Shock

(Continued from page 47)

wire or apparatus as rapidly as possible. Most patients are thrown clear.

2. Start artificial respiration by the Prone Pressure Method by well trained men without a moment's delay.

3. Use warmth such as blankets, hot water bottles, etc.

4. Carry out artificial respiration until patient breathes by himself or there are definite signs of the onset of Rigor Mortis (stiffening in death.) Do not give up for at least four hours.

5. After the patient breathes, do not allow him to

stand up or sit up. Transport him to home or hospital in a lying position.

As a result so far:

(1) There have been forty-six awards of the Canadian Electrical Association Resuscitation Medal between June, 1922, and June, 1934, to employees of Ontario public utilities for the saving of thirty-nine lives from electrical shock.

(2) In one large utility over a fifteen year period, the employees when not interfered with and where there was any chance of success, revived 64% of the cases that they attempted.

Although much has yet to be learned, the research has definitely confirmed the instructions based upon the classical work of the late Sir Edward Sharpey Schafer.

Are you and your men prepared?

#### Ontario Repudiates Quebec Contracts

(Continued from page 30)

it will materialize and will continue for the next ten years. It will be interesting to see whether this campaign comes off or not. It will also be interesting to see whether the bill allowing a company to sell natural gas in competition with Hydro in London, Ontario, approved in the House, will evoke any comments.

In conclusion, I would like to reiterate my opinion that the Ontario government has come to conclusions that are based on wrong premises. It may be that it has asked for certain information from the Commission's engineers and has misinterpreted it. I am also convinced that we should have an engineer in the Legislature. I mean an electrical engineer familiar with the Hydro situation. He would not allow some of these absurd load comparisons to be made, or allow power costs submitted which would not hold water in a court of law. Such things as comparing low load-factor steam plants with high load-factor water power plants would not happen.

And I would end with this thought: If the province of Ontario wants to retain her industrial leadership in this Dominion she must plan for large future power supplies and leave the management of the world's greatest electric utility to engineers and not to politicians, no matter how sincere they are.

#### McKenzie Red Lake Gold Mines

(Continued from page 36)

amp., 575 volt, 3-phase circuit; 2—15 amp., 575 volt, 3-phase circuits.

Panel No. 2: 1—255 amp., 575 volt, 3-phase circuit; 1—50 amp., 575 volt, 3-phase circuit; 1—35 amp., 575 volt, 3-phase circuit; 2—25 amp., 575 volt, 3-phase circuits; 1—15 amp., 565 volt, 3-phase circuit.

Panel No. 3: 1—70 amp., 575 volt, 3-phase circuit; 1—50 amp., 575 volt, 3-phase circuit; 4—25 amp., 575 volt, 3-phase circuits; 2—15 amp., 575 volt, 3-phase circuits.

The switchboard and panels were supplied by the Amalgamated Electric Corp. Ltd., through the Northern Electric Company who also supplied all conduit, wire, fittings, etc., for the complete light and power installation.

The survey of the line was carried out under the direction of H. N. Anderson, O.L.S. sec-treas., and the line was constructed by A. Hamilton, under the general direction of John W. Shaw, manager. W. G. Armstrong is president of the McKenzie Red Lake Gold Mines Limited.