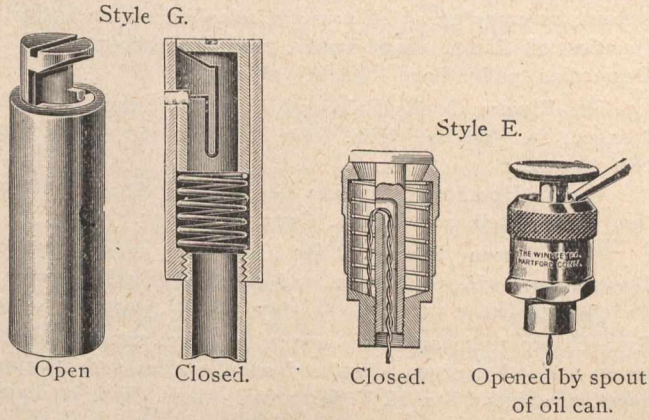


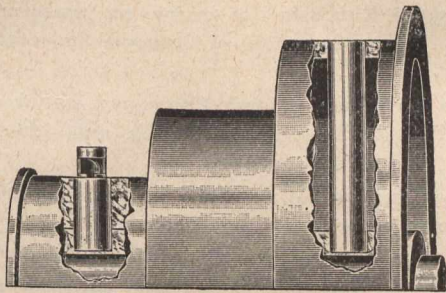
to the despatcher's office at Ottawa, where he has made a record for clearing the line and moving trains. He is one of the youngest railway superintendents in Canada, and will now have charge of a division 450 miles long, and 47 miles of terminals.

**OILING DEVICES.**

The Winkley Co., of Hartford, Conn., claim that until they brought out their oiler for cone and loose pulleys and flush surfaces, manufacturers were without a suitable means of protecting oil holes in the face of pulleys, except where



loose screws were used. Screws, however, are soon lost, and the oil holes become a receptacle for all grit and dirt carried to them by the belt. These oil cups are simple and effective, requiring only one-fourth turn to release them, when they pop out, exposing a large opening to receive the oil. A



Oil Cups Applied to Pulley.

simple push down, with a slight turn latches the cup shut, and no serious result follows if the oiler is forgotten and left open, as the belt will simply push it in if made to revolve over it. They are made any length to suit the diameter of the pulley.

**ENGINEERS' CLUB OF TORONTO.**

The December meetings of the Engineers' Club of Toronto, were three in number. At the regular meeting on the 2nd the Engineers' bill came up for discussion. On the 10th a smoker and social evening was arranged, at which those present enjoyed a good time. On the 19th a discussion took place over Engineering Education, and some amendments to the constitution and by-laws were considered.

**CANADIAN SOCIETY OF CIVIL ENGINEERS.**

The Canadian Society of Civil Engineers, Montreal, held two meetings in December—on the 4th and 18th. At the former H. J. Cambie, M. Can. Soc. C.E., read a paper on "An Unrecorded Property of Clay," which will be found elsewhere in this issue. On the 18th, discussions came up on papers formerly submitted by C. H. Rust, on Sewage Disposal, and A. W. Robinson, on the Economy of Large Ships. The annual meeting will be held on January 27th and following days.

After formal opening of the convention on Tuesday morning, 27th January, a reception will be held in the afternoon, and in the evening the president's address will be delivered. The morning of Wednesday, 28th, will be devoted to the reception of the reports of committee, and the afternoon to technical papers. The annual luncheon will take place in the evening. Thursday, 29th, will be taken up with the reading of papers and unfinished business.

**ELECTRIC AND GAS LIGHTING IN CANADA.**

The report of the Inland Revenue Department of Canada for the fiscal year which ended 30th June, 1902, has just been received. It contains some interesting figures showing the continued rapid growth of electric lighting. There are now registered in Canada 315 electric lighting companies, of which 200 are in Ontario, 49 in Quebec, 11 in New Brunswick, 24 in Nova Scotia, 3 in Prince Edward Island, 12 in Manitoba and the Territories, and 16 in British Columbia. The report for 1899 showed 276 companies, so that within three years 39 new companies have commenced business. The then existing companies have greatly extended their business, as the number of arc lamps increased during the three years from 10,960 to 12,884, and the number of incandescent lamps from 546,672 to 984,956. Estimating that one arc lamp is equal to ten incandescents, there were in use in 1899 the equivalent of 656,200 incandescents, and in 1902 the equivalent of 1,113,796 incandescents, an increase during three years of over 75 per cent. The comparison of meter tests shows that the meters are more efficient than they were three years ago, the proportion rejected on inspection having materially decreased, Montreal presented 2,895 meters for inspection; Ottawa, 2,036; Toronto, 1,069; and Quebec, 1,029. Inspecting electric meters is a new function for the Inland Revenue Department.

There were 20,765 gas meters presented for inspection, of which 20,598 were verified, and 67 rejected. The tests of the illuminating power of gas showed, as a rule, well over the standard of 16 candles. In Woodstock, Ont., it reached an average of 23.62; Owen Sound, 22.55; Kingston, 21.81; Ottawa, 21.47; Ingersoll, 21.15; Berlin, Ont., 21.01; Belleville, 21.01; Sarnia, 20.43; Peterboro, 20.42. In other places it was under 20. In Toronto it was 19.85; Montreal, 19.29; Hamilton, 17.93; St. John, N.B., 16.45. There are 45 towns and cities in Canada lighted by gas.

**ADVANTAGES OF SMOOTH-ON GASKETS.**

A smooth-on gasket connection may take a little longer time to make than when using an ordinary steam packing, but when once made it will be more durable and seems to improve with age. Difficult flanged connections can easily be made with smooth-on, as it is applied in a plastic state, and adapts itself to the flanged faces, whether parallel or not. For high temperature and high pressure work, the following show its value: It has been tested to 1,500 degrees Fah., and withstood 400 pounds steam pressure without injury. Smooth-on, when hard, expands and contracts the same as iron, keeping the joint tight at all temperatures, and it will withstand steam, water, fire or oil. The cements are packed in 5, 10, and 25-pound tins. The Smooth-On Mfg. Co., Jersey City, N.J., will send an illustrated book, with full information, free.

**LITERARY NOTES.**

In these days when so many ordinary partnerships are being converted into joint stock companies, the book just issued by David Hoskins, principal of the British American College, Toronto, entitled "Book-keeping for Joint Stock Companies," will be welcomed as a valuable guide and textbook in accounting. Forms and instructions for all ordinary transactions are given, including form used in organization, the keeping of records, annual statements, allotment and transfer of stock, ledger and dividend books, accounts, etc., with extract from the Ontario Joint Stock Companies' Act. The author is a vice-president of the Institute of Chartered