J. R. Steele, Freight Claims Auditor C.P.R. at Montreal, born at St. John's, Newfoundland, Jan. 14, 1856.

W. A. Trueman, Director, Secretary and Treasurer Albert Southern Ry. at Albert, N.B., born at Wallace, N.S., Jan. 29, 1849.

F. J. Watson, Division Freight Agent G.T.R. at Montreal, born at Toronto, Jan. 12, 1866.

G. H. Webster, General Tie Agent C.P.R. at Montreal, born at Creemore, Ont., Jan. 31, 1857.

The Duff Manufacturing Co., of Pittsburg, Pa., has brought two suits in the U.S. Circuit Court for the Northern District of Illinois against Templeton, Kenly & Co., Ltd., of Chicago, for infringement of the Barrett patent, 455,993, granted July 14, 1891, and the other for infringement of the Barrett patent, 527,102, granted Oct. 9, 1894, for the manufacture of the lifting jacks lately placed upon the market by Templeton, Kenly & Co., known as the Simplex jack. The first of these patents sued under covers the automatic lowering mechanism known as the "yielding tripping plate" embodied in the Barrett jack 10 made by the Duff Manufacturing Co. This patent has been sustained by the circuit and appellate courts on numerous occasions, and automatic lowering jacks of the same general type as the Simplex jack have been held to infringe the patent. In the second suit it is also claimed that the Simplex jack infringes the later Barrett patent, as well as the one which the courts have previously considered. Motion for preliminary injunction restraining the manufacture of the Simplex jack pending the suit under the earlier Barrett patent has also been made.

The L'Assomption Ry., which runs from L'Epiphanie to L'Assomption, Que., has, as usual, been closed for freight traffic for the winter.

An Unrecorded Property of Clay.

By H. J. Cambie, M. Can. Soc. C.E., Division Engineer C.P.R. Pacific Division.

Some years ago the writer found that ordinary clay, such as used in the manufacture of bricks, and commonly spoken of as plastic clay, would, if dried sufficiently to remove nearly all its moisture, lose its cohesive properties, and would, if water were afterwards applied to it in considerable quantities, become an almost liquid mud. On the other hand, clay which has not been so dried will not absorb any more water, and will lose only some of its outside particles in the washing. The writer has been unable to find any reference to this property of the material in question in the text books at his disposal. It came to his notice under the following circumstances :—

The main line of the C.P.R. runs for nearly 150 miles through a portion of British Columbia, situated between the eastern slope of the Cascade range, and the western slope of the Gold range. There is no regular rainfall over this area, and crops cannot be grown without irrigation. A good many thunderstorms do occur in the summer, but only over very limited areas, and the rainfall from them runs away quickly without soaking into the ground to more than a depth of one or two inches, and is dried off in a few hours by the rapid evaporation incident to the region. These characteristics are especially pronounced in the central part of the area mentioned. The farming lands are situated on benches, sometimes 200 ft. or more above the level of the railway, which runs along the valley of the Thompson river, and at no great distance from the bank. Hay is the most valuable crop raised, and is used to winter cattle, and, with sufficient irrigation, several crops of it can be obtained in each season. Water has, therefore, been lavished upon the fields for nearly 40 years, and has, in the opinion of the writer, been the cause of numerous landslides, one of the greatest of which occurred in 1881, when about 100 acres slid forward for nearly a quarter of a mile, falling in that distance about 300 ft., and completely blocking the Thompson river for about three days by forming a dam 75 ft. or more in height. Many similar slides on a smaller scale have occurred since that date, but, generally, with slower movement and less disastrous effect. One of these is of large area, and includes a portion of the railway line; it has required constant watching, and has been a cause of much anxiety to the officials, because, although its forward progress has been slow, it has begun to move, year after year, at a date about three months after the beginning of the irrigation season, and has continued moving for about the same period of time In 1886 the C.P.R. Co. took legal proceedings against the parties irrigating the fields above this slide, and it devolved upon the writer to furnish the legal advisers for the Co. with evidence to prove that the slide was due to the action of irrigation water. An investigation was made by the writer in consultation with Messrs. Stanton and Schuyler, who were employed by the Co., as experts in hydraulic engineering, and, particularly, in irrigation practice, and with H. J. Warsap, Manager of the C.P.R. Portland cement works at Vancouver, an expert in clays. At the slides were found beds of clay so exceedingly dry and hard as to have the appearance of soft sand stone, and still retaining the marks of picks in the slopes of railway cuttings, where dressed many years ago. When a block of this dry indurated clay was placed in a soup plate and water dropped upon it, the clay absorbed 50% of its own weight without any change of form or other visible effect, but when it had absorbed about 60% of water, its structure completely col-