

To conserve the Yukon water supply, the Government has approved a plan to impound the surplus water of the spring and rainy season, by the construction of reservoirs in the creeks and gulches, and the storage of water on worked or worn-out ground. Judge Britton and B. T. A. Bell have been empowered to continue the enquiry into hydraulic concessions. Mr. Bell, who was injured by a fall down an elevator shaft, in Ottawa, last month, died on the 1st inst.

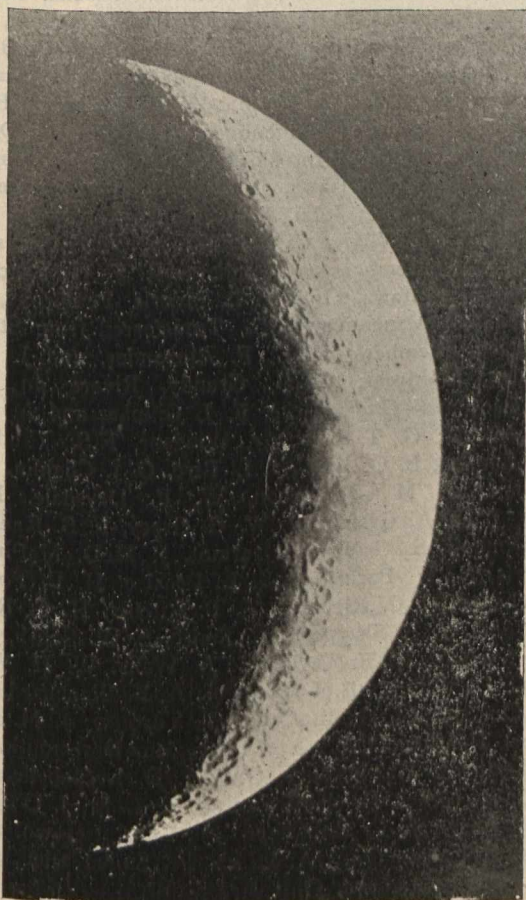
According to an order-in-council, passed at Ottawa last month no more hydraulic mining leases will be granted in the Yukon, and those who now hold such leases will be required to fulfil the conditions.

A syndicate of Canadian and American capitalists, headed by H. M. Whitney, of Boston, has been formed to develop and operate the extensive submarine coal areas at South Head, Port Morien. Extensive purchases of surface lands, water privileges, etc., at Southhead, Port Morien, have been made, and an elaborate survey under the direction of Hiram Donkin, C.E., of the Dominion Coal Company, has been completed. The new collieries, which will constitute the greatest submarine mining project in the world, will resemble the submarine collieries in North Wales, where similar undertakings have been successfully accomplished. C. O. Macdonald, who has investigated the Welsh methods, reports that conditions at Port Morien are more favorable than in British submarine collieries.



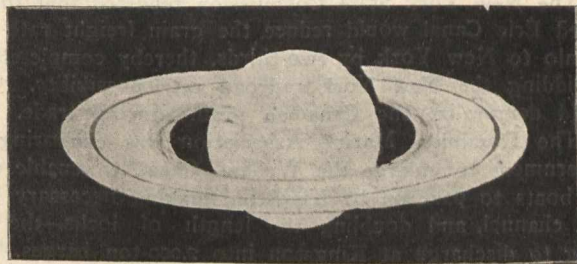
PHOTOGRAPHS OF THE MOON AND SATURN BY RADIUM LIGHT.

We believe that to the Rev. Dr. D. B. Marsh, president of the Astronomical Section of the Hamilton Scientific Association, belongs the honor of printing the first photograph taken of a heavenly body by radium light. By the kindness of Dr. Marsh we are able to publish engravings from these two photographs, with the following note as to the method employed:

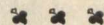


"I am sending the photographs you have asked for. One is a photograph of the moon, taken by myself, with my own telescope (a 5-inch), and printed from the negative with radium light. Also I enclose a photograph of the planet Saturn, drawn by G. P. Jenkins, F.R.A.S., of Burlington, Ont. Mr. Jenkins drew the planet at the eye of his own telescope in 1895, in Wales, England. The telescope was a 5-

inch Wray. From the drawing I have, I made the enclosed photograph. And did it (also the one of the moon enclosed), in this way. To the negatives I placed sensitive Illford lantern plates in direct contact. These were put in the holder of my camera. I then took a tube containing 1 grm. of



radium of 240 radio-activity, the property of, and kindly lent me by, J. R. Collins, of Toronto. I placed this tube containing the radium inside the camera in the position of the inner lense of the camera. I then drew out the bellows till the radium and plate holder were about 3 inches apart. This being done, I drew the slide and exposed the sensitive plate to the radium light through the negative. The exposure was for 13 hours; the plates being developed, resulted in what I am sending by parcel mail."



THE TRENT VALLEY CANAL.

At the Canadian Institute, Toronto, on February 6th, J. Alexander Culverwell delivered an address on the above subject, which was illustrated by some forty lantern views, showing topographical maps, structures and scenes on the Trent Valley, Soo Canal, Welland-St. Lawrence, the new enlarged Erie Canal, and the Dortmund-Ems German Canal, an interesting description being given of these waterways. Mr. Culverwell argued that the Trent Valley Canal followed out the same method adopted in the \$100,000,000 German canal system, connecting the coal and steel districts of Germany with the North Sea, namely, length and breadth of lock rather than depth. It was recognized that by this means, bulk of barge could be accommodated more cheaply, and a cheaper means of transportation afforded. The draught of each system would be eight feet, and the locks of the Trent wider, but not so lengthy. New York State was also building a barge system in the enlarged Erie Canal, which had at present capacity for only 250-ton barges, costing \$100,000,000, to accommodate boats of 1,000 tons, 150 feet long, 25 feet wide, and having 10 feet draught. The Trent Valley Canal would accommodate 800-ton boats; the dimensions of the locks were 134 feet long, by 33 feet wide, with 8 feet draught, and the total cost would be only \$9,000,000, of which \$4,000,000 was already spent on the section between Lake Couchiching—an arm of Lake Simcoe—on the north, and Rice Lake on the south. The balance of \$5,000,000, would open up the two outlets, viz., the northern outlet between Midland on Georgian Bay, and Orillia on Lake Simcoe, and the southern outlet between Rice Lake and Lake Ontario, either at Port Hope or Trenton. This waterway would then open up 1,000 miles of inland shore line, many of the lakes and rivers lying transversely to the line of canal.

The speaker explained that the purpose of the Trent Valley Canal was to connect the upper lakes, at Midland, on Georgian Bay, where the great lake carriers would discharge the grain into Trent Valley barges, which, passing through this series of canals and lakes, via Peterboro, where is the greatest lift lock in the world, would enter Lake Ontario either at Port Hope or Trenton, and proceed by the St. Lawrence canals to Montreal, where they would discharge into the ocean-carriers for Europe. Only 18 miles out of the 200 miles comprising this waterway, would be actual canal, as compared with the Erie Canal, which had 257 miles of continuous canal, therefore the natural advantages of the Trent system were most apparent. The Trent route would also be 730 miles shorter, between the Soo and Liverpool, than by the Erie, and one day shorter than the Welland route between the Soo and Montreal.