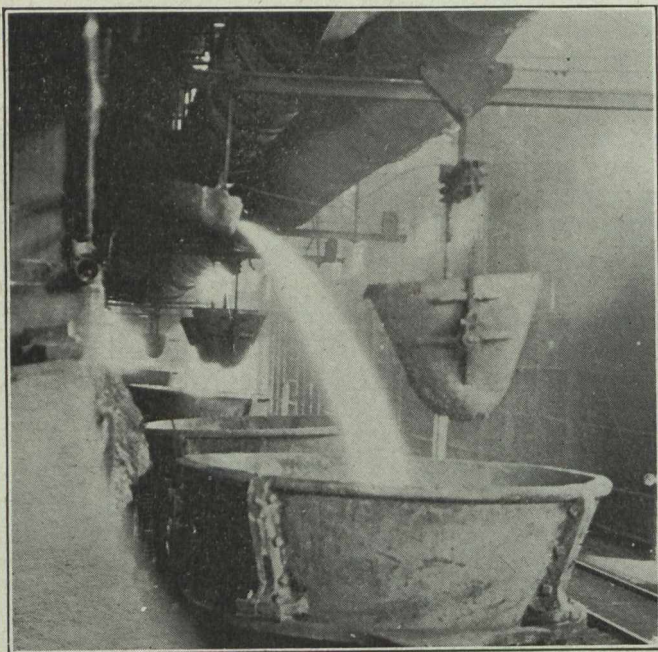




Pouring Slag from Nickel-Copper Furnace

graph from a letter from Sir George Perley, Acting High Commissioner in London, who acted for the province in the negotiations: "I should like to add," said Sir George, "that very thorough steps were taken to obtain the name of a suitable man, and, in addition to making inquiries in other likely quarters, the Institute of Metals was approached. As a result, Mr. Holloway was recommended as eminently suitable for the position. I thereupon wrote Mr. Bonar Law submitting Mr. Holloway's name, and requesting that, before their decision was given, a careful investigation might be made as to his qualifications. Accordingly, at my instigation, the Colonial Office consulted the Admiralty, and ultimately advised me that their enquiries entirely bore out the opinion of the Institute of Metals that Mr. Holloway is a very suitable nominee for the position."

At the last session of the Legislature \$15,000 was set aside to finance the investigation. The total outlay, however, will necessarily be much in excess of this sum.

RADIUM FROM CARNOTITE

Washington, July 27.

Secretary of the Interior Franklin K. Lane announced to-day that the production of radium from Colorado carnotite ores by the U. S. Bureau of Mines, in connection with the National Radium Institute, has passed the experimental stage in its new process and is now on a successful manufacturing basis. He also declared that the statements made to Congress concerning the ability of the Bureau of Mines to produce radium at a greatly decreased cost over other processes had actually been accomplished and that the costs were even less than predicted.

"The cost of one gram of radium metal produced in the form of bromide during March, April and May of the present year was \$36,050, I am informed by Dr. Charles L. Parsons, in charge of the radium investigations of the bureau. This includes the cost of ore, insurance, repairs, amortization allowances for plant

and equipment, cost of Bureau of Mines co-operation, and all expenses incident to the production of high grade radium bromide. When you consider that radium has been selling for \$120,000 and \$160,000 a gram, you will see just what the Bureau of Mines has accomplished along these lines.

"The cost of producing radium in the small experimental plant during the first few months of the bureau's activities was somewhat higher, but not enough to seriously effect the final average.

"The public, however, should not infer that this low cost of production necessarily means an immediate drop in the selling price of radium. The National Radium Institute was fortunate in securing through the Crucible Steel Company the right to mine ten claims of carnotite ores belonging to them and this is practically the only ore available at the time. Since then new deposits have been opened, but these are closely held, and according to the best judgment of the experts employed by the Bureau of Mines the Colorado and Utah fields, which are much richer in radium bearing ores than others known, will supply ore for a few years only at the rate of production that obtained when the European war closed down the mines. The demand for radium will increase rapidly, for the two or three surgeons who have a sufficient amount of this element to entitle them to speak from experience are obtaining results in the cure of cancer that are increasingly encouraging as their knowledge of its application improves. A few more reports like that presented to the American Medical Association at its recent San Francisco meeting and the medical profession as a whole, will be convinced of its efficacy. Under all the circumstances that have come to my knowledge it does seem to me that it behooves the Government to make some arrangement whereby these deposits, so unique in their extent and their richness, may be conserved in the truest sense for our people, by extracting the radium from the ores where its now lies useless and putting it to work for the eradication of cancer in the hospitals of the Army and Navy and the Public Health Service.

"The ten carnotite claims being operated at Long Park, Colorado, by the National Radium Institute have already produced over 796 tons of ore averaging above two per cent. uranium oxide. The cost of ore delivered at the radium plant in Denver has averaged \$81.30 per ton. This included 15 per cent. royalty, salary of Bureau of Mines employees, amortization of camp and equipment, and all expenses incident to the mining, transportation, grinding and sampling of the ore.

A concentrating plant for low grade ores has been erected at the mines and is successfully recovering material formerly wasted. Grinding and sampling machinery has been installed at Denver and a radium extraction plant erected in the same city. The radium plant has now a capacity of three tons of ore per day, having been more than doubled in size since last February. Before that time the plant had been run more or less on an experimental scale, although regularly producing radium since June, 1914. To July 1, slightly over three grams of radium metal had been obtained in the form of radium barium sulphate containing over one milligram of radium to the kilogram of sulphates. The conversion of the sulphates into chlorides and the purification of the radium therefrom is easily accomplished and with very small loss of material. Unfor-