

Account of June 22/51.

# COPPER MINING.

## AN IMPORTANT STEP.

### TESTING LOW-GRADE ORE.

#### GOVERNMENT METALLURGIST APPOINTED.

The Government have decided to make a systematic attempt to initiate a means of turning to account the relatively low-grade copper deposits of the State by hydro-metallurgical methods. With this end in view the Minister of Mines approached the University, and, upon the latter's recommendation, has offered the position of Government Metallurgist for a period of two years to Mr. J. D. O'Connor, B.Sc., who graduated in 1902, and who has held important metallurgical positions in various parts of Australia since that date.

Mr. Connor will receive a commission to visit and report upon the most modern hydro-metallurgical plants now in operation in America. After a short tour he will erect a small experimental plant in South Australia, and will carry out a series of tests on the copper ores of this State. The direct aim of this experimental work will be the drawing up of working schemes, wherever practicable, for the treatment of the ores that have been tested. The results of all work done and the details of any scheme that may be propounded will be published. It is considered that, even if only one successful plant can be put into operation, the State will reap an ample reward for the expenditure involved. The experimental work that is to be carried out is absolutely essential for the proper design of the larger working plants, which, to be economically successful, must be situated on the mines. In providing a means whereby individual mine owners or companies may obtain authoritative reports on the feasibility of treating their copper ores by leaching processes, the Minister feels that the Department of Mines will be offering the most valuable form of assistance to the industry. Should the experimental work be successful it is hoped that some of the copper mines of the State, which are now lying idle or being worked on a restricted scale, will become important contributors to the annual output of copper. The unavoidably wasteful methods of mining that are now being followed on some mines, whence only the richest ore is being shipped to the smelters, should give place to more economical treatment, and the existing rejection of the lower grade ore calls for improved means of utilising to the full our mineral resources.

During the next two years, under Mr. Connor's direction, the testing of a number of typical ores will be effected, and the work may be reasonably expected to benefit the State by inducing a general increase of mining activity. At the outset the Minister wishes to make it clear that during the limited term of Mr. Connor's appointment, it will be necessary for the department to weigh carefully the claims of various mines for consideration. Every attempt will be made to experiment upon as wide a range of copper-bearing ore as is possible in the time, and the selection of the mines from which the ore to be tested is to be obtained will therefore depend very largely upon the results of the investigations that will be made for this purpose. It goes without saying that preference will be given to properties sufficiently developed to show promise of containing such a tonnage of ore as may justify the erection of a plant on the mine, if a satisfactory method of treatment can be indicated. The Minister has furnished the following particulars of the qualifications of the Government Metallurgist:—

Mr. Connor graduated in the science school of the University of Adelaide with honors in mining engineering, and also gained the Fellowship of the South Australian School of Mines. He was employed for six months in the underground department, and for the same period in the concentration mill of the Broken Hill Proprietary Company at Broken Hill. Thence he proceeded to Western Australia, and was for 12 months assayer and bullion smelter for the Westralia and East Extension mine at Coolgardie. For six years he was in the employ of the Great Boulder Perseverance mine, in Kalgoorlie, occupying successively the positions of mill foreman, chemist and assayer, and relieving metallurgist. For four months he filled the post of mill superintendent at Whim Well copper mine, in Western Australia, and for six months a similar position in the Broken Hill Junction mine. He acted as mill foreman in the flotation plant at Mount Morgan, in Queensland, for six months, and has been engaged for shorter periods on experimental work with the Amalgamated Zinc Company and on the Matex Plant, Block 14, Broken Hill. It will thus be seen that the Government have been fortunate in securing the services of a metallurgist trained at the Adelaide University, and possessing a considerable amount of practical experience in metallurgical processes.

Advertises 2 3rd June 15

# SHAKESPEARIAN LONDON

## LECTURE BY PROFESSOR HENDERSON.

The last of a series of three lectures on "Shakespeare's Home and Homeland" was delivered by Professor G. C. Henderson, M.A., in the Prince of Wales' Theatre, at the Adelaide University on Tuesday evening. Notwithstanding the unpleasant weather, the audience was fairly large.

The lecturer traced Shakespeare's associations in London. He stated that the portion of the metropolis in which Shakespeare lived, in the neighborhood of St. Paul's Cathedral, was one of the oldest and at the time one of the busiest parts. About 200 yards behind St. Paul's Cathedral was the corner of Monkwell and Silver streets, where the poet had resided.

### Shakespeare's Companions.

An old map showed the neighborhood, which had been frequented by the literary minds of the age. This document bore out the traditions associated with the poet. There were plenty of Italians, Dutchmen, Frenchmen, and sailors from the Mediterranean, whom Shakespeare would probably have met and made companions of, and he would probably have got information from them with regard to their countries. A refreshment house, the Cooper's Arms, now stood on the site of Shakespeare's dwelling. Depositions in a law suit which was prosecuted in 1612 were important, as they proved Shakespeare's place of residence in London—the place close to "Melancholy Shoreditch," so ravaged by the plague.

### A Testimony from Associates.

When the Shakespeare-Bacon controversy was pondered on, the preface to the first folio by John Heminge and Henri Condell, who had collected and given the plays to the world, should be considered. Such a testimony from men living in the same district, and written seven years after Shakespeare's death, was important.

### The Site of the Globe.

There was a great controversy in London with regard to the site of the Globe—Shakespeare's theatre. One early map (1611) showed the Globe to be near the river, but not so close to the water as the old Bear-house. A map published in 1616 was the most reliable, and this showed the Globe to be an octagonal building, on a line with the Bear-house, with only two rows of houses separating it from the water. There was a dispute whether the Globe had stood on the north or south of what was now called Park-street. The early maps were not likely to be incorrect to any considerable degree with regard to the position of a place.

### Early Theatrical Profits.

George Pycroft's picture, showing the Globe Theatre, illustrated the pit, where the "groundlings" stood, and the gallery. Those who occupied places in the pit had to pay 1d., and the occupants of the gallery paid 2d. or 3d. according to position. On Royal nights the charge would be 1/ (equivalent to 6/ or 7/ now), but that was the highest charge recorded. The theatres were cheaper in those days, but they paid better than the modern theatres, one reason being that no large sums were spent in scenery. Very little scenery was used. There might have been a tombstone or a rock. The change of scene was indicated by the raising of a curtain screening a small section of the stage, and by the display of a sign naming the supposed scene. To make up for the lack of scenery descriptive passages were written. A letter to the Lord Chamberlain from Burbage, the actor, written he (the lecturer) thought, in 1630, indubitably proved the association of Shakespeare with the Globe. It was on record that one man interested in a theatre had made the equivalent of £70,000, according to modern values, but it was not known whether this was entirely the result of theatrical ventures.

### Shakespeare's Prominence.

A document giving details of the accounts of the Royal household proved that in March, 1604, Shakespeare was one of the King's players. He was first on the list of those players who received four yards of red cloth on that occasion. A further document, dated August, 1604, showed that Shakespeare had been a groom of the chamber. The year was evidently an important one for the poet, as he was one of the men instructed to wait upon the Spanish Ambassador. In conclusion, Professor Henderson summed up the points in favor of Shakespeare in controversy. There was no evidence, he held, in support of the Baconian theory.

The lecture was illustrated by a series of lantern slides, reproducing old maps and documents, and showing views in Shakespeare's London.