

APPENDIX No. 2.

COPY OF NEW ZEALAND SPECIFICATION OF CASSEL GOLD-EXTRACTING COMPANY (LIMITED.)

WHEREAS we, JOHN STEWART MACARTHUR, Technical Chemist, of 15, Princes Street, Pollok-shields, in the County of Renfrew, North Britain, ROBERT WARDROP FORREST, M.D., and WILLIAM FORREST, M.B., both of 319, Crown Street, Glasgow, in the County of Lanark, North Britain, are desirous of obtaining letters patent for securing unto us Her Majesty's special license, that we and such others as we should at any time agree with should from time to time during the term of fourteen years (to be computed from the day on which this instrument shall be left at the Patent Office) make use and vend within the Colony of New Zealand and its dependencies an invention for "Improvements in obtaining gold and silver from ores and other compounds," and in order to obtain the said letters patent we must by an instrument in writing under our hands and seals particularly describe the nature of the said invention, and in what manner the same is to be performed, and make a distinct claim for the special novelty thereof. Now, therefore, the nature and details of the said invention, and the manner in which the same is to be performed, are particularly described in the following statement:—

This invention has principally for its object the obtaining of gold from its ores or other similar compounds, such as mattes and slags, but it is also applicable for obtaining silver from its ores or compounds, and it comprises an improved process which, whilst applicable to ores or compounds generally, is effectual with ores and compounds from which gold and silver have hitherto not been easily obtainable. In carrying out the invention the ore or other compound in a powdered state is treated with a solution containing cyanogen or a cyanide (such as the cyanides of potassium, sodium, or ammonium) or other substance or compound containing or yielding cyanogen, till all or nearly all of the gold and the silver are dissolved; the operation being conducted in a wooden vessel, or a vessel made of or lined with a material not acted on to any considerable extent by the solution or substances contained therein. The solution is then drawn off, and the metal or metals are recovered by any suitable process, and the cyanogen, cyanide, or substance containing or yielding cyanogen may be regenerated. The cyanogen or substance containing or yielding cyanogen may be used as such, or such materials may be taken as will by mutual action form cyanogen, or substance containing or yielding same. Under certain circumstances it may be found desirable to conduct the operation under pressure, in which case a closed vessel must be employed, and in any case, if found advisable, such operation may be carried on under varying conditions of temperature, and in either open or closed vessels.

Whereas a claim simply and broadly for the use of cyanogen, or a cyanide- or cyanogen-yielding substance, might be held to include all strengths of solution, and whereas dilute solutions containing 8 parts or less of cyanogen, or what is equivalent thereto, for every 1,000 parts of water are most advantageous, whilst strong solutions, besides being more costly, are of less practical utility, we hereby disclaim the use of strong solutions.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, we declare that what we claim is: The process for obtaining gold and silver from ores and other compounds consisting in treating such ores or compounds with a dilute solution containing cyanogen, or a cyanide or other substance or compound containing or yielding cyanogen, substantially as specified.

And we do hereby, for ourselves, our heirs, executors, and administrators, covenant with Her Majesty, her heirs and successors, that we believe the said invention to be a new invention as to the public use and exercise thereof; that we do not know or believe that any other person than ourselves is the true and first inventor of the said invention; that we will not deposit these presents at the Patent Office with any such knowledge or belief as last aforesaid.

In witness whereof we have hereunto set our hands and seals, this 12th day of December, 1887.

(L.S.) JOHN STEWART MACARTHUR.

(L.S.) ROBERT WARDROP FORREST.

(L.S.) WILLIAM FORREST.

Witness—ALEXANDER FORSON STEWART, 319, Crown Street, Glasgow.

THE CASSEL GOLD-EXTRACTING COMPANY (LIMITED) THE CYANIDE GOLD-RECOVERY SYNDICATE (LIMITED) AND OTHERS.

JUDGMENT OF THE COURT OF APPEAL.

THIS was an appeal against a decision of Mr. Justice Romer's, which is reported in the *Times* of 9th November last, and in the *Patent Reports*, Vol. xi., p. 638. The plaintiffs are the registered owners of letters patent (No. 14174, of 1887) granted to John Stewart MacArthur and William Forrest for "improvements in obtaining gold and silver from ores and other compounds." The action was brought to restrain the defendant syndicate and two other defendants—Carl Maria Pielsticker and Thomas Gilbert Bowick—from infringing the patent, as the plaintiffs alleged that they had been doing. Mr. Justice Romer dismissed the action on the ground that at the date of the patent, having regard to what was then published and known, there was no real invention in the so-called discovery. The learned Judge also said that, even if the invention was one which could form the good subject of a patent, he thought it had been anticipated by the specifications of two American patents, which were taken out respectively in 1867 and 1885, in the United States, by two persons named Rae and Simpson. By their complete specification the patentees claimed—(1.) The process of obtaining gold and silver from ores and other compounds, consisting in dissolving them out by treating the powdered ore or compound with a solution containing cyanogen, or a cyanide- or cyanogen-yielding substance, substantially as hereinbefore described. (2.) The process