to several of the statements contained in the specification, on the ground that they were insufficient and misleading, and that the alleged invention, as claimed in the second clause of the specification, is different from that for which the patent was applied for, and is not indicated or referred to in any way in the provisional specification, and that the alleged invention was not new at the date of the patent, having been published in a number of publications prior to that date.

The plaintiffs were represented by Sir Richard Webster, Q.C., M.P., Mr. F. Moulton, Q.C., M.P., Mr. Bousfield, Q.C., and Mr. A. J. Walker; while the defendants were represented by Sir Edward Clarke, Q.C., M.P., Mr. R. Neville, Q.C., M.P., and Mr. Goodeve.

Sir R. Webster, in opening the case for the plaintiffs, said the patent had been put in practice particularly in South Africa during the life of the patent, which ran from the year 1887. Between 600,000oz. and 700,000oz. of gold had been extracted by the process, having a value of £2,500,000. Royalties had been paid to the extent of £117,000 in connection with the process. There had been a variety of methods of extracting gold, chemically and mechanically, but prior to this patent there was no method of extracting the residium of gold from the tailings or washings of gold by a similar process. The anticipations set up by defendants extended back for a great many years; but with reference to the character of these anticipations, and with reference to the suggestion that the existing knowledge was such as to prevent the plaintiffs from disclosing subject-matter, according to his instructions nothing had been added to the useful public knowledge in this matter, since a statement was made by Professor Faraday in 1857. In the plaintiffs' specification the first claim is for the use of cyanogen in the manner described, and the second claim for a particular proportion of the cyanogen in the dilute solution. If a small lump of gold is put in a cyanide of potassium solution, it would remain there practically for a great length of time, but by powdering the ore the metallic gold is slowly dissolved in the solution.

There was no dispute as to what the defendants had done; the sole dispute was the deduction from those facts. The defendants had erected an experimental laboratory. They advertised for persons to come and see their ores tested by the Pielsticker process—Pielsticker being a gentleman who had purported to invent the infringing process. The defendants permitted the plaintiffs to inspect what was being done at the laboratory of Mr. Harland. The suggestion was that the defendants were not working to obtain gold by the dissolving action of potassium-cyanide, but by electrical action, which had the effect of extracting the gold from the ore electrically, and not by the process which Messrs. Forrest and MacArthur had described. The counsel said the plaintiffs' case would be that electricity did not add anything to the dissolving power of the cyanide of potassium. In other words, the gold which was extracted was, in the defendants' process, got out by the dissolving action of the dilute solution in exactly the same way as in the plaintiffs' patent.

Several eminent men were examined on the question on behalf of the plaintiffs, amongst whom was Professor Dewar, Lord Kelvin, Professor Robert Austen, F.R.S., Sir Henry Roscoe, who held that the plaintiffs were entitled to their letters patent.

The counsel for the defendants submitted that the plaintiffs had made out no case. The claim was for any solution containing cyanogen or cyanides, or other substance containing or holding cyanogen. That was the largest claim that could possibly be made. It was admitted that for years it had been well known that an aqueous solution containing cyanogen had the property of dissolving gold. Under these circumstances there was no subject-matter of invention at all. For a person to say, "I take out a patent by which I, as against all the world, claim to myself the exclusive right of extracting gold from its ore with a solution of any strength in respect of gold, however contained in the ore, or however situated, and I claim to prevent the world from using a solution containing cyanogen," was bad. The counsel submitted there was no subject-matter of a patent, and no invention. To obtain a patent there must be a novelty and the application of ingenuity in order to produce the result which was to be obtained. What novelty, and what ingenuity could be suggested there was in this patent? There was no novelty; there was no ingenuity, unless it were that ingenuity which consisted in trying solutions of different strength and then claiming them all. How could a patent be good which claimed cyanogen in combination with anything and everything?

There were a number of witnesses called on behalf of defendants, amongst whom was Mr. Louis Janin, jun., of New York, who had previously gone to considerable trouble to search the patent offices for patents applied for the use of cyanogen, and wrote an article on the subject, which is published in the "Mineral Industries of the United States, 1892." An extract of this article was published in my last annual report, showing that as early as 1867 a patent was issued to Julo H. Rae, of Syracuse, New York, for the treatment of auriferous and argentiferous ores by cyanide of potassium, and even at that date it was not considered new. Subsequently patents were issued to Messrs. Clark, Faucett, and Ogden in 1881, and on the 28th July, 1885, letters patent were applied for by Jerome W. Simpson, of Newark, N.J.

In Mr. Simpson's specifications he says, "I am aware that cyanide of potassium, when used in connection with an electric current, has been used for dissolving metals, and also that zinc has been employed as a precipitant, and the use of these I do not wish to be misunderstood as claiming broadly. I am also aware that carbonate of ammonia has been employed for dissolving such metals as are soluble in a solution thereof, and the use of this I do not claim. But what I claim as new is: (1.) The process of separating gold and silver from their ores, which consists in subjecting the ore to the action of a solution of cyanide of potassium, carbonate of ammonia, and chloride of sodium, and subsequently precipitating the dissolved metal substantially as set forth. (2.) The process of separating metals from their ores—to wit, subjecting the ore to the action of a solution of potassium, carbonate of ammonia, and chloride of sodium, and subsequently precipitating the dissolved metals."

In the MacArthur-Forrest application for letters patent in the United States of America they state: "Having fully described our invention, what we desire to claim and secure by letters patent