

*Reasons for the Report of the Lords of the
Judicial Committee of the Privy Council in
the Matter of a Petition for the extension of
the term of Letters Patent granted to Charles
A. Parsons; delivered 14th May 1898.*

Present:

LORD WATSON.

LORD MACNAGHTEN.

LORD DAVEY.

SIR RICHARD COUCH.

[*Delivered by Lord Macnaghten.*]

On the 19th of April last their Lordships had under their consideration an application by Mr. Charles Algernon Parsons for an extension of his Patent numbered 6735 and dated the 23rd of April 1884 for "Improvements in Rotary Motors actuated by elastic fluid pressure and applicable also as Pumps."

The invention which is the subject of the patent is one of conspicuous merit. It has solved a problem which for a hundred years and more has exercised and baffled the ingenuity of inventors. Many persons have endeavoured to employ the velocity of steam for the purpose of causing rotary motion without the intervention of any reciprocating apparatus. But no one before Mr. Parsons ever succeeded in producing a steam turbine of practical utility. Mr. Parsons had his attention directed to the subject while he was a student at Cambridge and he devoted much time and thought to it then. But it was only after prolonged research and many experiments

that he was able to determine the conditions of success.

Mr. Parsons states in his specification that motors according to his invention are applicable to a variety of purposes. Practically however up to the present time they have been applied only to the two purposes of electric lighting and marine propulsion. For the purpose of electric lighting the invention seems to be specially adapted. In dispensing with reciprocating action Mr. Parsons gets rid of vibration. It thus becomes possible to establish electrical stations in populous places and to use the most powerful engines there without fear of being stopped by an injunction on the ground of nuisance. As regards marine propulsion only one vessel so far has been equipped with Mr. Parsons' invention. The success of that experiment however has (as their Lordships were informed) induced the Admiralty to order two vessels of a similar type one of which is guaranteed to attain the speed of 35 knots per hour. Lord Kelvin when examined as a witness expressed his opinion that there is a great future for steam turbines and that for some purposes Mr. Parsons' invention is likely to supersede the reciprocating type of engines.

So far the case is clear. The difficulty begins when the question of remuneration comes to be considered. It would not be easy under any circumstances to appraise the value of such an invention or to assess even approximately the amount of remuneration which it deserves. The task is not rendered lighter by the circumstance that it is impossible to measure with anything like accuracy "the profits made by the Patentee as such." If the invention had been less meritorious their Lordships would have been disposed to consider that circumstance fatal to the application as it

certainly would have been if the difficulty had been attributable to any fault on the part of the Patentee. But their Lordships are satisfied that the Patentee's accounts have been fairly kept and fairly presented and that Mr. Parsons has given their Lordships all the assistance in his power.

It will be convenient in the first place to deal with the profits of the invention derived from its application to purposes other than those of marine propulsion.

The general account of receipts and expenditure in respect of the English Patent exclusive of its application to the purposes of marine propulsion brings out a result showing that the total expenditure has exceeded the gross profits by the sum of 1,107*l.* 13*s.* 10*d.* after allowing interest on capital at the rate of 7 per cent. per annum but without charging anything for the Patentee's services.

In regard to foreign patents corresponding to the English Patent No. 6735/84 the Patentee's accounts bring out a loss of 202*l.* 4*s.* 11*d.* The Belgian German Italian and Swedish Patents were allowed to lapse in the interval between July 1890 and December 1893 when Mr. Parsons' patent rights were in the hands of his late partners from whom they were repurchased in December 1893 in consideration of the sum of 1,500*l.* In September 1895 Mr. Parsons sold to the Westinghouse Machine Company of Pittsburgh the United States and Canadian patents together with other valuable patent rights belonging to him but reserving the right to use all the patents comprised in the sale for the purpose of marine propulsion. The consideration was a lump sum of 5,000*l.* and certain royalties in respect of which the sum of 850*l.* has been received. The total amount received from the sale after deducting expenses was the

sum of 5,263*l.* 18*s.* 8*d.* of which one-fifth is attributed in the accounts to the Patent No. 6735/84. Even if the whole proceeds of the sale were attributed to the original patent it appears to their Lordships that the gain on the foreign patents would not counterbalance the loss on the English patent if any reasonable allowance is to be made to the Patentee for his services.

The result so far in a pecuniary point of view is disappointing. Their Lordships however are satisfied that Mr. Parsons has done his best to push his invention. Its slow progress in public favour is in accordance with all experience. New methods are not welcomed by workmen or manufacturers or even by mechanical engineers. The greater the novelty the greater the apathy and hostility to be overcome.

The circumstances relating to the application of the patent to the purposes of marine propulsion and the results in the shape of profits attributable to that application require a more detailed statement.

In the year 1893 Mr. Parsons made numerous experiments in order to test the applicability of steam turbines for the purpose of marine propulsion. In January 1894 he granted to a Company called The Marine Steam Turbine Company Limited an exclusive licence to use for the purpose of marine propulsion and for that purpose only the Patent No. 6735/84 together with a large number of other patents belonging to him some of which were improvements more or less important and some independent patents. In consideration for this license he received 9,000*l.* in fully paid-up shares in the Company which had an issued capital of 24,000*l.* out of a nominal capital of 25,000*l.* so that Mr. Parsons became interested in $\frac{3}{8}$ ths of the issued capital of the Company.

In order to demonstrate the effect of steam turbines as applied to the purpose of marine propulsion the Company built and equipped the *Turbinia* at a cost of about 16,000*l.* Mr. Parsons executed all the work for the Company at net cost and without making any charge for his own services.

When the success of the *Turbinia* was established a new Company called Parsons Marine Steam Turbine Company Limited with a nominal capital of 500,000*l.* divided into 5,000 shares of the nominal value of 100*l.* each was formed for the purpose of purchasing from the old Company the license which they held from Mr. Parsons together with the *Turbinia* and all the tools and effects of the Company. The purchase price was 30,000*l.* in cash and 80,000*l.* in shares together with certain royalties and certain rights to further shares in the event of further issues of capital. After repayment of the outlay on the *Turbinia* the sum received in cash by Mr. Parsons in respect of his shares in the old Company does not seem to have been more than sufficient to pay him a fair remuneration for his services in connection with the *Turbinia*.

The result appears to be that the remuneration which Mr. Parsons has received for his invention consists of so much of his interest in the new Company and so much of his remaining interest in the old Company as may be properly attributable to the Patent No. 6735/84.

As regards Mr. Parsons' interest in the old Company he is entitled to certain royalties which no doubt may prove extremely valuable but from which no profit has hitherto been derived.

His shares in the new Company 300 in all reduced in number by a few shares given by him to his employees are admittedly of considerable value. Shares in the Company are not on the market and have never been sold. Their Lord-

ships however think they ought to be taken at their par value.

The question then arises how much of Mr. Parsons' interest in the old Company and in the new Company is properly attributable to the Patent No. 6735/84. That is a very difficult question. But having regard to all the circumstances and having considered the evidence of the gentleman who assessed the value of the patents comprised in the sale to the new Company for the purpose of apportioning the price between them their Lordships have come to the conclusion that the amount should be taken at not more than one-half and not less than one-fourth.

Having arrived at this conclusion considering the position of the new Company bearing in mind that it cannot commence operations at the earliest before August next and that the value of the shares in the new Company must depend to a large extent on the prolongation of the original patent and weighing all the other circumstances of the case their Lordships are of opinion that Mr. Parsons has not been adequately remunerated and they will consequently make their report to that effect. They have already intimated that the patent should be prolonged for five years.
