

ment and fungoid filaments. These fungoid filaments would not be coaxed by any treatment into the development of fruit, and their nature, therefore, must still remain doubtful.

Our authors conclude that it is more reasonable to infer that localised spots in the tissues undergo a degenerative change into a substance peculiarly adapted to the development of filamentous growths, the origin of which, in situations where no spore could penetrate, must remain matter of perplexity.

M. J. BERKELEY

THE ADMINISTRATION OF PATENT LAWS IN ENGLAND

Abstract of Reported Cases relating to Letters Patent for Inventions. By T. M. Goodeve, M.A. Barrister-at-Law, and Lecturer on Applied Mechanics at the Royal School of Mines. (London: Henry Sweet, 1876.)

THE subject of the Patent Laws of this country which is now upon its trial, is one which largely affects the interests of scientific men in almost every branch of research, for in a great majority of cases a patent is the only channel through which the inventor of a good thing, which may confer inestimable benefits upon mankind, has any chance of being remunerated.

There is, at the present time, great diversity of opinion upon the question whether the Patent Laws should exist at all or be abolished, and there is also a diversity of opinion among men of science whether a scientific invention designed for scientific purposes ought to be patented, or freely given to the world. It is universally admitted, however, that some mode of rewarding the individual whose ingenuity and perseverance have enabled him to discover a new invention ought to be in existence; but, until some better system than that of patents is established the laws must be dealt with as they are. With regard to purely scientific inventions it is impossible to draw a hard and fast line between those useful alone to science and others upon which large commercial industries may be built. It often happens in the course of scientific research that an idea is struck upon, which, while aiding the immediate inquiry, is at the same time the solution of some great commercial problem, out of which fortunes may be made. The history of the science of Chemistry alone abounds with innumerable instances of the truth of this, and assuredly the original inventor ought to share in benefits derived from what could not have existed apart from his discovery.

The principle of patents is in itself good, because it provides that the reward of the inventor is regulated by and is proportionate to the utility of the thing invented, and to the amount of benefit derived from it by the community; and, at the same time, that reward is at the expense of that portion of the public who use the invention, and not, as in alternative schemes, at the cost of the public at large. The carrying of that principle into practice, however, is beset with so many difficulties, and the administration of the laws relating to it is so very defective, that a patent which is worth anything, can only be maintained at the cost of endless litigation, which often swamps all possible profits, and with a few exceptions lands the inventor in a large sum out of pocket.

Much of this would be saved if inventors had a more accurate knowledge of the Patent Laws, and knew something of the principles upon which they are administered in the tribunals of the land. Many a patent is taken out for an invention which is legally disqualified from being the subject-matter of a patent, and every day letters of patent are being granted for things which have been invented and patented over and over again. They are never refused on this ground, and the mischief is not discovered until the expenses of an action at law have been incurred.

Prof. Goodeve's work, though not a treatise on the Law of Patents, gives to the reader a remarkably clear insight into that law and its administration, by enabling him to understand the reasons which must guide a court or jury in their decisions upon patent cases.

From the vast medley of reported cases scattered throughout the archives of the Courts, the author has made a selection of abstracts chosen with great judgment on account of the characteristic nature of the principles involved, and, by the omission of all matter extraneous to those principles, has put forward the real points at issue in a very prominent and instructive manner. In each case the essential pleadings are given, and the inventions are described as nearly as possible in the language of the specification. The claims are stated, with the evidence adduced in their support at the trial, and both the direction of the judge and the finding of the jury are given in a clear and condensed form.

Many of the cases quoted in Prof. Goodeve's book involve points of high scientific interest; and, apart from its obvious value as a work of legal reference, it will be found to be a useful handbook to the inventor, and not without some considerable interest to the general scientific reader.

C. W. C.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

Sumner's Method at Sea

IN NATURE for August 24 you were good enough to review, in very favourable terms, Sir William Thomson's recently published book of tables for facilitating Sumner's Method of navigation. Since then you republished an attack on that method by the Astronomer Royal, which he made in the form of a letter to Prof. Stokes, after Sir William Thomson had communicated to the Royal Society the plan upon which his tables are based. Will you allow me, as one who took an active part in preparing Sir W. Thomson's book for publication, and who has had a good deal of practical experience of his method, to endeavour to reply shortly to the criticisms of the Astronomer Royal?

In publishing Sir G. B. Airy's letter, Prof. Stokes appended a note which was really a complete answer to the objections brought forward, and this was further enforced by remarks made by Sir W. Thomson in a second communication to the Royal Society (*Proc.*, June, 1871). As, however, the subject was but briefly treated in these communications, and the Astronomer Royal's letter has been republished at his own request, it may not perhaps be useless to go into the question in somewhat greater detail.

After stating the geometrical conditions under which the Sumner line, or *locus* of the ship's position is obtained from a single observation of altitude and time, the Astronomer Royal points out the very obvious truth that the accuracy of the position of the line depends on the accuracy with which Greenwich time can be