

William CUBITT

(20 mai 1851)



Brought from the Lords, 4 July 1851.

R E P O R T

AND

MINUTES OF EVIDENCE

TAKEN BEFORE THE

SELECT COMMITTEE OF THE HOUSE OF LORDS

APPOINTED TO CONSIDER OF

T H E B I L L,

INTITULED,

“ AN ACT further to amend the Law touching LETTERS
PATENT for INVENTIONS;”

AND ALSO OF

T H E B I L L,

INTITULED,

“ AN ACT for the further Amendment of the Law
touching LETTERS PATENT for INVENTIONS;”

AND TO REPORT THEREON TO THE HOUSE.

Session 1851.

Ordered, by The House of Commons, to be Printed,

4 July 1851.

Mr. B. Fothergill.
 20th May 1851.

1508. Do you not think that the provision of the Bill which makes it necessary to pay an additional price for the continuance of a patent, will have the effect of preventing the accumulation of useless and worthless patents?

Yes, I do.

1509. Will you state for what term you think a patent should continue before any additional payment should be made?

I approve of the proposals which are made in the two Bills, of three years and seven years.

1510. In saying that you wish to give every facility for the multiplication of patents, you have reference, have you not, to the preliminary inquiry which you contemplate, by means of which useless and worthless patents will be exposed?

Yes, in every case.

1511. Have you any statement on this subject which you wish to make, which you have not made, in reply to the questions which have been put to you?

There is one suggestion with reference to the publication of all specifications; I think that is an important point; I should also say, that the parties in Manchester who applied to me to represent them, particularly wished me to impress upon your Lordships the necessity of securing the services of one or more practical scientific men, in the event of these Bills being carried into operation, to assist the Commissioners in examining specifications.

The Witness is directed to withdraw.

W. Cubitt, Esq.

WILLIAM CUBITT, Esquire, is called in, and examined as follows:

1512. YOU are President of the Institution of Civil Engineers?

I am.

1513. In the course of your professional experience have you become acquainted with mechanical inventions generally?

Yes; I was acquainted with mechanical invention generally before I undertook altogether the profession of a civil engineer; I was a practical mechanic in a variety of employments for many years; in fact from my earliest childhood almost.

1514. Have you ever been an inventor yourself?

Yes, of many things; but a patented inventor of but one.

1515. You have taken out a patent?

I took out a patent in the year 1807.

1516. Has your attention been at all directed to the advantages or disadvantages of the patent system?

Yes, it has been drawn to the subject very frequently indeed; but the more it was drawn to it, and the more I saw of it, the less I approved of it; but with that disapproval I could not satisfy myself how to devise anything much better; whether to make alterations, or whether to do away with patents altogether would be best, I can hardly determine.

1517. Will you state, generally, your objections to the present system?

The objections to the present system are, the very advanced state of scientific and practical knowledge, which renders it difficult to secure anything. The principles of mechanism being very well known and very well understood, inventions involving exactly the same principle and to effect the same object may be practically and apparently so different, that patents may be taken out for what is only a difference in form, intended to produce the same effect, without there being any difference in principle.

1518. Do not you think that the patent laws have been of advantage in stimulating invention, and inducing inventors to disclose their inventions to the public?

I think

I think the patent laws have set a great many people to invent things to secure benefit to themselves, as benefit was so to be secured. It is a great question with me, upon the whole, whether all the benefits are equal to all the losses incurred by expending money upon patents, looking to the great legal contests which always arise if anything be really good.

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1519. Do you think that the system has acted in an injurious way in stimulating persons to attempt to invent, who have no peculiar inventive power?

I think people will always invent anything that is useful and good, if it will answer their purpose to do so, even without reference to a patent.

1520. Is not it the case, that there are certain machines involving complicated arrangements, which are of no use till they are made perfect, but that without the prospect of some protection, or some monopoly, persons would not spend the time and money necessary to bring those machines to perfection?

It is difficult to say when a machine is perfect; the more simple it is, the more perfect it is, generally speaking: I will take the case of steam-engines, which, in a great degree, have really improved backwards, to use a misnomer; that is to say, there is nothing so simple in my judgment and experience, as the plain simple cylinder engine, whether high pressure or condensing, with the steam acting on one or both sides of the piston; that is the simplest form of steam-engine, and, as far as I have seen it tried, is the best: people have contrived all sorts of schemes to improve the steam-engine: for instance, by making rotatory engines, and very complicated things, so complicated indeed that they become exceedingly costly; several instances of that kind may now be seen in the Great Exhibition, where any one may assure himself, or with a little explanation may see that things which have cost a great deal of money, and are very complicated, are not so good as those which are more simple and cheaper.

1521. With regard to the steam-engine, even taking the one which is in the form you describe as the most simple application of steam power, did not it require many years and great expense to bring it to that degree of perfection?

No; the steam-engine is very much the same now as it was when Watt himself left it with his first improvements; it is just the same thing; the great difference has been in the improvement of the tools to make steam-engines with, which made the workmanship more perfect.

1522. Did not that first steam-engine cost Watt a great deal of time and money and labour to bring it to the state in which he left it?

It cost him a great deal to defend his invention in the courts of law, as I have heard him say.

1523. What effect has the present patent system had in leading inventions by workmen?

I can scarcely say; there have been some few inventions brought out by workmen, where the inventions have been confided to their employers, or to persons having capital, in order that they may be worked; I know some few instances of the kind which have answered the purpose, but I do not know them by name; but there is less room for invention than persons imagine. There is little chance of a workman inventing things which will be very useful, which are not known at present, because they do not know what has been done. Cases frequently come under my knowledge of that kind; one did the other day, in which a person had an invention for which he did not take out a patent, but he made it, like a sensible man, for his own purposes, as an article of sale; the article which he made was for filtering water: he had a patent for a peculiar artificial stone through which the water was filtered, and he could make it of different degrees of fineness; he took out a patent for that; and he made a filter, in which a stone vessel, hollow, like a bomb-shell or a cylinder, with closed ends, was enclosed in a larger cylinder of iron, into which it would fit loosely, leaving a space all round; the outer cylinder was connected with the water-main or water-pipe or cistern, and filled by it; and the water then percolated through the inner vessel, from which inner vessel a stop-cock went to the outside to draw the water—that was filtered water; or you could reverse the operation, the foul water could be put into the inside of the stone filter, and be drawn from the outside vessel or iron case as filtered water; that was made and sold by him, and answered the purpose very well indeed; he sold a great many to some advantage. Now came the operation of the patent laws upon it; shortly

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after he began to supply his customers, he received notice from a house in Liverpool that he would be prosecuted; he received intimation of legal proceedings against him for interfering with his, the Liverpool man's patent. I have some of those filters, and other persons have them whom I know, and some noblemen and gentlemen, and one especially, in Portland-place, had one. The manufacturer of these things, who had no patent, came to me to consult me upon the subject; I at once saw how the case stood, having regard to the specification of the Liverpool patentee, that he had taken out a patent for that which another man had before done so exactly, that the words of the specification and the drawings fitted the first man's invention, which was without a patent, therefore his patent would have been null and void. I advised my friend to write to the patentee to inform him of the fact, that he had taken up a case which he could not support, and that he himself was infringing upon the invention of the first man, who had no patent; that brought the Liverpool man to me, I having been referred to as having one of these filters in use; I explained to him that I had had the patent filter of the other man for two or three years. Then, what was to be done? I advised my friend, who was in fact one of the Ransomes, of Ipswich, to tell the Liverpool patentee if he did not come to some arrangement of a business-like nature, he himself would have to become the prosecutor, and to sue out a "*scire facias*" to make him prove his patent right, which is an expensive legal proceeding, and very troublesome to a patentee. I believe they have since made some business arrangement; but that shows how patents may be, and are frequently, taken out for things which have been previously invented.

1524. Would not that be corrected by the provision in the Bills which are under the consideration of the Select Committee, which would provide for complete indices being kept of all specifications?

That has been proposed. I was talking with a gentleman outside just now, who has really begun a thing of that kind. He has an exceedingly good index; but that will not guard against the case which I have now mentioned, because it will be an index of patents which a person can even now find, if he will spend money and time enough in searching for it. The system altogether is too complex, and patents are taken out for too minute differences. Take the screw. The article of the screw for steam navigation has caused more money to be spent in patents, for the short time it has been in use, than anything I know. I have been called on as a witness several times, against my inclination, to prove certain principles in regard to the screw, all which need to be obviated by some change in the law, if it be possible. I do not know how to change it.

1525. Would not those inconveniences be avoided by the appointment of scientific persons to assist the Attorney-general, whose business it would be to make themselves acquainted with what has been previously done?

Scientific persons are frequently, as scientific persons, very little practical. Though they know a great deal of science as applicable to such and such things, they do not know the nature and practice of such things sufficiently to determine whether the patent would be an infringement of what has been done, or whether it would not, or rather, whether it ought or ought not to be considered to be so.

1526. Persons of practical and scientific accomplishments might be combined for the purpose?

They would throw great light upon the subject, no doubt; but that would become very expensive, because if they were competent to do what was necessary, they would become too expensive for persons to employ them; and then if you have mere theoretical men, they become charlatans, and the object is not attained in that way. The subject is beset with difficulties on all sides.

1527. Do you see any objection to the plan proposed for amending the present patent law, by allowing every inventor merely to register his invention, and then fight out the validity of it subsequently in a court of law?

If parties about to take out patents could be protected by their being held in abeyance for six months, and they were then able to perfect the patent without fear of anything they might divulge injuring their own invention, I think great good might result from that, and I think that is the best step which could be taken; but nothing ought to be done in a very great hurry, or all at once. I think if persons about to take out patents could be put in the position of persons

now

now exhibiting in the great Exhibition, good would arise. I understand the case to be just this :—if the Extension of Designs Act, which has been passed during the present Session, in respect of the articles now in the Exhibition, work as I hope it will work, I think that patents generally might very advantageously be placed under the same system, and that the greatest good would thereby result, in preventing worthless patents being taken out.

1528. You think there should be a provisional registration, allowing a certain number of months, during which time the parties might either make up their minds to withdraw their claim for a patent, or perfect their invention ?

Yes.

1529. You think that by that means the party would have sufficient time and opportunity of ascertaining whether anything similar to his own invention, or so similar to it that the patent would be an infringement of what previously existed, had been already patented ?

Yes ; I think that is the first step to an improvement. I find that everybody complains of the patent laws, and nobody seems able to point out the remedy.

1530. Will you refer to Clause XIII. of Bill No. 2, and see whether its provisions would meet your views ?

I think that the term of six months, in some cases, would be too short ; I should say, " not less than six months or more than twelve." I think that clause contains the germ of something like an improvement. There is no one Act which can perfectly improve the patent laws ; but, I think, they might be gradually improved by such means as these.

1531. The Committee understand, that you do not think that inventors require the stimulus given by the patent laws, or that that stimulus is necessary in order to induce inventors to disclose their inventions to the public ?

I do not think that persons would set themselves about scheming and contriving things in order to take out patents for them. I think that those persons who are able to make useful inventions, and who ought to be protected by patents, would of themselves, scheme quite sufficiently for their own purposes, without any view to obtaining a patent.

1532. If such is your opinion, you probably do not think it necessary that the mere importer of an invention from abroad should be protected for a certain term of years ?

When once a thing is published, and can be seen by all the world, if they go where the thing is, it should be prohibitory, I think, to a patent. I think a patent should only be granted for something quite original.

1533. You do not think that the introducer of an invention ought to have the same advantage as the inventor ?

No ; it would depend upon how he obtains the thing from the inventor. If a man has really followed the inventor, and takes out a patent after spending a great deal of his intellect and money to secure that patent, he certainly ought to be protected, but the difficulty is to prove that there is originality in it.

1534. Do not you think that all cases of this nature should be tested and judged of, not by what the inventor ought to have, but by what arrangement is most conducive to the public interest ?

The public should be considered by the laws and the law makers. The inventor, or the party who uses the invention for his own benefit, ought to make all he can of it fairly and honestly. It frequently happens that those things which cost the least, and are of the least real value or public utility, meet with a rapid sale ; a great deal of money is made by them for a short time by keen inventing tradesmen, whether they are original or not. They last long enough by having a patent to keep others out of the market, but they themselves get paid for a thing which scarcely deserves protection ; whereas those things which are very costly, like the invention or the improvement of the steam-engine, or turning the great powers of nature to account by new and improved methods, seldom or ever become remunerative, because they are too costly ; people will not pay heavy premiums for using the patent right, but they will wait 14 years, or whatever the time is, till the patent has expired, and then take to the use of it ; but if it is a pair of snuffers, for instance, and the cost is very trifling, they

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will sell thousands or tens of thousands of them ; the patentee will be well paid, and themselves enriched, but the public would not be benefited.

1535. Surely in the case of a very important improvement on a great scale, the profit derived from the use of that improvement is much beyond any cost of the license ?

Yes, it is ; but such is the practice of mankind, that they will not do so ; they will not pay it.

1536. Do you think that the circumstance of a man taking out a patent for any invention, generally leads to further improvement, or checks further improvement ?

I think it tends to check improvement for a long time. If a patent is a safe patent, and well specified and taken out, nobody can use that article, or make it, without a license from the patentee during the existence of the patent ; that is, so far, a hindrance to improvement. Then comes a patent for an invention for such a little improvement or deviation as will evade the letter of the law, though not the spirit of it. That is the cause of so much money being spent in law-suits in reference to patents.

1537. You do not think that the fact of an object being attained in one way, sets other people to attempt to attain that same end in a perfectly different way, and therefore is productive of useful results ?

Yes, I think they may attain the same end in a different way, which, in nine cases out of ten, is an evasion of the letter of the patent. As an elucidation of that position, I will take the screw for a steam-vessel : a man will take out a patent for a screw with a certain angle of blade ; another will take out another with a different angle ; I have known patents with quite as little difference as that, whereas the invention is the same exactly.

1538. Was there no patent taken out for the use of the screw generally, without reference to the angle ?

Yes, if it is a screw ; I should say the screw is a good subject for a patent, whatever the angles of the threads may be ; still it is a screw ; there are a great variety of patents founded upon the different angles of the blades of the screw.

1539. My question was, whether any patent had been taken out for the screw, without reference to any particular angle of the blades ?

I do not know exactly, but I think Smith's screw, which was improperly called the Archimedean screw, seemed to take the lead, and I believe it has put some of the other patents on one side.

1540. In that case there was no specification of a particular angle ?

I think not ; specifications and patents for screws are now very numerous, and a great many legal processes have gone on at great cost about them.

1541. Do you think that it would be practicable to get rid of those little troublesome patents, if there were a competent tribunal to inquire into them, and if the expense of such an inquiry were not a bar to it ?

I think that that would depend upon how much they knew upon all the subjects which came before them ; I believe you would get no Board at once sufficiently theoretical and practical to know all ; a perfect tribunal of that kind would imply a full knowledge of the whole subject ; we cannot expect to have such a Board, and the difficulties therefore would so far remain.

1542. Confining your attention to mechanical inventions, do you think that your own institution, for instance, would have much difficulty in throwing overboard ninety-nine out of one hundred small and useless patents ?

They might do a great deal of good in that way ; I dare say they would put aside a good deal of rubbish ; but it would not be satisfactory, I think. People will invent, and they will take out patents ; the natural conceit of inventors is so great, that they think nobody can know so well as themselves, till they have done the thing and failed, and even then they will scarcely be convinced.

1543. Supposing in any particular case there were an oversight, would there be any injustice in leaving the party to appeal to Parliament for a remuneration ?

I scarcely know what to say to it ; I think the less Parliament has to do with such matters, the better, because they merge so much into trading and business transactions,

transactions, in which every man ought to do as he pleases for his own benefit; if he takes out a bad patent it is at his own risk, and at his own cost. I have often thought about a Board to examine inventions, and say, whether they are sufficiently original for patents to be granted for them; but from the experience I have had of Boards and committees, and so on, I very much doubt whether the thing would work well.

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1544. You think that such Boards are more promising in theory than they are found to be, by experience, beneficial in practical results?

I think so.

1545. Have you read the two Bills now before the Committee?

I have not; I do not know the nature of the Bills upon which the Committee are sitting; it is a subject which I never went into, or applied my mind to much, having rather a dislike to the system, not because it may not be good in principle, but because I never saw it act well. With all the present laws, and all the present means of making inventions, the more science improves, and the more practice improves, the more difficult do these things become; my idea is, that in a rude and infant state of society, where there is very great room for improvement, patents may be, if not good, better than they are in an improved state of society; the more improved society becomes, and the more perfect is the application of science practically to the ends in view, the less can patents be supported, and the less value they really are.

1546. The result produced upon your mind by your own observation and experience through life, is unfavourable rather than favourable to the patent laws?

Yes, and with this mortification attending it, that I do not know how to cure the evil; most people think they do, but I plead guilty to not knowing at all.

1547. You think the patent laws are an artificial contrivance for the purpose of stimulating inventions, more applicable to the early stages of mechanical invention, than to the more advanced development of it?

Yes; upon the whole, I think they do rather more harm than good; if they were altogether done away with, I think nobody would suffer, but many persons would gain.

1548. No mode suggests itself to you, by which patent rights could be applied effectually to those cases in which they might be considered useful, at the same time distinguishing effectually those cases in which you think patent rights are pernicious rather than useful?

The difficulty is, that no man will be persuaded that his inventions are bad, till they prove so bad that he cannot support them any longer. I had a great deal to do with taking out patents formerly, and in devising a scheme for the purpose of making complete sets of apparatus to produce a patent invention entirely private, so that no one should know what the patent was to be, in order that it should not be forestalled; a great deal of that work was done in the house I was connected with at the time; we could get up patents, and get them taken out, and establish them as it were, having sharp clever men at the head of the trading concern, and a private method of getting out inventions. A patent could be taken out, and made to pay very well indeed for a few years; that was to their benefit, and so far to the benefit of the public, because the inventions were for useful purposes; I refer to patents for the extension and progress of agricultural machinery. I think, as a workman, I made the foundation or the patterns of 30 or 40 or 50 different sorts of ploughs for different descriptions of soil; there were patents taken out not only for the ploughs, but for the separate parts of them; that was the great concern of the Messrs. Ransome at Ipswich, and a very flourishing concern it is at this day; the patents were all well supported; I do not think they ever lost a patent; but, after all, the distinctions between some of the patents were very small, but they served as an advertisement to a large trade of a very respectable house.

1549. Would that degree of inventive talent have been expended upon agricultural implements if no patent laws had existed?

I think it would, in that case.

1550. Assuming that the principle of the patent laws is still maintained, do

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you think it desirable to limit the granting of patents as much as possible, or to make it as wide as possible?

I think the patent laws now are wide enough for anything; there is nothing you cannot take out a patent for.

1551. There is an obstacle interposed, is there not, by the great expense of a patent?

People talk a great deal of the expense; if a man can take out a patent for 20*l.* for a good thing, others will endeavour to get it from him in some way, and it will involve him in as much expense in law, as Watt told me about saving coals for steam-engines, it would involve him in continual law-suits.

1552. The great item of expense you imagine to be, at present, the cost of the law-suits to which patentees are exposed, rather than the fees which are paid for a patent?

Yes, that is my feeling; if a thing is worth having, people will endeavour to make something so much like it, that it will lead to doubts whether it is not the thing itself: then the patentee will prosecute his rights, and get into a court of law, and there expenses are incurred upon a scale to which the first cost bears no proportion.

1553. You do not think that much injury would be done, therefore, if all patent laws were to be repealed, leaving inventors without the protection which those laws are supposed to give them?

I quite think so; that is the leading view in my mind.

1554. If the patent laws were abandoned in this country, but patent rights were still granted in other countries, what do you think would be the effect upon invention in this country?

The patent laws in other countries would not affect this country, because they could do nothing in those countries which we could not go and see there; as society is at present constituted, no person holding a foreign patent could prosecute any one for doing what he pleased here.

1555. If inventions were made by ingenious people in this country, say in steam-engines or in any manufacturing processes, would not there be a tendency on the part of those inventors, to communicate those inventions in the first instance to the United States, and by that means to give priority in the race of competition to the manufacturers there over those in this country?

I think not; because they could do nothing there under the patent which we could not do without the patent, if we had no patent laws; we can quite equal them, and beat them, I think, at present, in the execution of machinery.

1556. Do not you think the most ingenious inventors in this country would, under those circumstances, turn their attention to the United States, and bring out their inventions first in the United States, leaving them to be afterwards adopted in this country, and that by that means considerable delay would arise, and priority therefore be given, so far, to the manufacturers of the United States over those of this country?

I think not; if they wanted to make those articles to bring here to sell, we should beat them in the manufacture, in my opinion.

1557. Would not there be this advantage to the manufacturers in this country, that they would pay no tax, whereas in America they would be paying for the patent right?

In the present state of intercourse between nations, I think there is less need of patents than there ever was, and greater difficulty in supporting them; it is more difficult to be original, that is the principle of the thing.

The Witness is directed to withdraw.

*Professor
 Bennet Woodcroft.*

Professor BENNET WOODCROFT, is called in, and examined as follows:

1558. WHAT is your occupation?

I am Professor of Machinery, in University College.

1559. You