

Robertson of certain properties to the defender, on 20th January 1854, the question put in that issue was whether that disposition was made "without true, just, and necessary cause, and to the hurt and prejudice of prior creditors of the said David Robertson, contrary to the Act 1621, c. 18?" In reply to that issue the defender could either prove that there was no insolvency at the date of the alienation, in which case he would be entitled to a verdict, or that there did exist "a true, just, and necessary cause" for the alienation of the property, in which case the defender would also be entitled to a verdict, because the purpose of the Act 1621 was to strike at alienations made gratuitously without onerous consideration; and it was not within the scope or effect of the statute to cut down any alienation which was made for a just and substantial consideration, whether the alienation should be in the form of an absolute disposition, or be in truth and substance a security. Now, in the present case, it was not necessary for the defender to go further than to say that, on the 20th January 1854, there did exist "true, just, and necessary cause" for the conveyance of the properties, because he thought that, according to the evidence led by the pursuer himself, it was clear that the debt which was due to the defender by Mr Robertson on the 20th of January 1854, amounted to £2000, and if that was the case, then undoubtedly the statute had no application. In the third issue the jury were asked to say whether there had been an intentional fraud committed with the view of injuring the other creditors; and he was confident that the evidence would show that the defender was undoubtedly entitled to a verdict on this issue. The reply of the defender to the fourth and fifth issues would be substantially the same as to the second and third—that there was no insolvency at the date of the disposition, and that the alienation was made for a true, just, and necessary cause. In reference to the sixth and seventh issues, relating to the promissory-note for £5717, granted by Mr Robertson to the defender, it was sufficient to entitle the defender to a verdict upon these issues to show that the sum of £5717 was actually due to the defender by Mr Robertson at the date of the promissory-note, so that there was no prejudice to prior creditors. That promissory-note was granted for a debt actually due to the defender, and it created no preference over other creditors, so that it could not prejudice the rights of prior creditors.

Evidence was then led for the defender.

The SOLICITOR-GENERAL addressed the jury for the pursuer.

YOUNG addressed the jury for the defender.

The LORD JUSTICE-CLERK charged the jury.

The jury found for the pursuer on all the issues.

Agents for Pursuer—Hill, Reid, & Drummond, W.S.

Agents for Defender—Webster & Sprott, S.S.C.

July 30 to August 10.

DUKE OF BUCCLEUCH AND OTHERS *v.*  
COWAN AND OTHERS.

*Nuisance—River—Pollution.* In an action at the instance of proprietors on the banks of a stream against other proprietors for polluting a stream—verdict for the pursuers.

In this action, which has been before the Court of Session since 1841, the Duke of Buccleuch, Lord

Melville, and Sir J. W. Drummond are pursuers; and Messrs Cowan & Sons and other gentlemen, proprietors of mills on the banks of the North Esk, are defenders. The following issues were sent to the jury:—

- "1. Whether, between 1st January 1835 and 1st October 1853, the defenders, the first-mentioned firm of Alexander Cowan & Sons, did, by discharging refuse or impure matter at or near their mills of Bank Mill, Valleyfield Mill, and Low Mill, or any of them, pollute the water of the stream or river called the North Esk, to the nuisance of the pursuers, or their authors as proprietors of their respective lands aforesaid, or of one or more of them?"
- "2. Whether, between 1st October 1853 and 20th May 1864, the defenders Alexander Cowan & Sons, the present occupants of said mills, did, by discharging refuse or impure matter at or near their said mills, or any of them, pollute the water of the said stream or river, to the nuisance of the pursuers or their authors as proprietors of their respective lands aforesaid, or of one or more of them?"
- "3. Whether, between 1st January 1835 and 15th May 1856, the defenders, the first-mentioned firm of William Sommerville & Son, did, by discharging refuse or impure matter at or near their mill called Dalmore Mill, pollute the water of the said stream or river, to the nuisance of the pursuers or their authors as proprietors of their respective lands aforesaid, or of one or more of them?"
- "4. Whether, between 15th May 1856 and 20th May 1864, the defenders William Sommerville & Son, the present occupants of said Dalmore Mill, did, by discharging refuse or impure matter at or near their said mill, pollute the water of the said stream or river, to the nuisance of the pursuers or their authors as proprietors of their respective lands aforesaid, or of one or more of them?"
- "5. Whether, between 1st January 1835 and 1st July 1856, the defenders, the first-mentioned firm of Alexander Annandale & Son, did, by discharging refuse or impure matter at or near their mills called Polton Papermills, pollute the water of the said stream or river, to the nuisance of the pursuers the Duke of Buccleuch and Lord Melville, or their authors, as proprietors of their respective lands aforesaid, or of either of them?"
- "6. Whether, between 1st July 1856 and 20th May 1864, the defenders Alexander Annandale & Son, the present occupants of said Polton Papermills, did, by discharging refuse or impure matter at or near their said mills, pollute the water of the said stream or river, to the nuisance of the pursuers the Duke of Buccleuch and Lord Melville, or their authors, as proprietors of their respective lands aforesaid, or of either of them?"
- "7. Whether, between 15th May 1856 and 20th May 1864, the defenders James Brown & Company, did, by discharging refuse or impure matter at or near their mill called Esk Mill, pollute the water of the said stream or river, to the nuisance of the pursuers or their authors, as proprietors of their respective lands aforesaid, or of one or more of them?"
- "8. Whether, between 1st May 1848 and 20th May 1864, the defender Archibald Fullerton Somerville, did, by discharging refuse or im-

pure matter at or near his mill called Kevock Mill, pollute the water of the said stream or river, to the nuisance of the pursuers the Duke of Buccleuch and Lord Melville, or their authors, as proprietors of their respective lands aforesaid, or of either of them?

“9. Whether, between 1st January 1843 and 20th May 1864, the defenders William Tod & Son, did, by discharging refuse or impure matter at or near their mill called St Leonard's Mill, pollute the water of the said stream or river, to the nuisance of the pursuers the Duke of Buccleuch and Lord Melville, or their authors, as proprietors of their respective lands aforesaid, or of either of them?”

On the motion of both parties, a special jury was cited to try the case.

Before the jury was empanelled,

GIFFORD (with him YOUNG and the DEAN of FACULTY) objected that there was no jury to try the case, in respect that the conditions of the Act 55 George III., c. 42, sec. 27, had not been complied with. The Act provided that in the case of a special jury the names of thirty-six persons should be returned to the Court, and that when the day of trial had been fixed the Clerk of Court should give notice to the agents of the parties to attend him for the reduction of the lists, which was to be done by each party striking off a name till they were reduced to twenty. In this case there were six sets of defenders; but the clerk, instead of allowing each defender to strike off the name of one person after the pursuer had done so, held that the whole defenders should act as one, and agree on a name to be struck off alternately with the exercise of that right by the pursuers. He held, therefore, that the defendants had not got justice in the constitution of the assize, and that there was therefore no proper assize to try the case.

The LORD JUSTICE-CLERK repelled the objection, but, on the motion of the defenders, took a note of it.

The DEAN of FACULTY and YOUNG, for the defenders, moved the Court that the case of each of the defenders should be separately tried.

The LORD ADVOCATE and the SOLICITOR-GENERAL having replied for the pursuers,

The LORD JUSTICE-CLERK refused the motion on the ground that a separation of trials would be contrary to the views expressed by the Court at the adjustment of issues.

The jury were then sworn and empanelled.

YOUNG, for the defenders, renewed his motion for the separation of trials, which was refused.

SHAND opened the case for the pursuers.

The general evidence of the case consisted of the testimony of parties who had resided from infancy on the banks of the stream, and who spoke to its present state of pollution, whereas previously it had been pure and had been used for watering cattle, for domestic purposes, as a trouting stream, and otherwise. A number of witnesses were examined as to the quality and amount of the materials used in the mills at different periods. Of the skilled evidence adduced on behalf of the pursuers, the following is that of Professor Christison and Dr Penny:—

Dr Christison, Professor of *Materia Medica* in the University of Edinburgh, examined by the SOLICITOR-GENERAL— I often visited the North Esk when I was a student. It was a favourite place for botanists. My eldest brother was fond of fishing. He used to bring trout home. I have bathed in the river. About 1813 or 1815 the water was quite clear. When the water was

deep we could see down to the bottom. When diving I once struck my head on the bottom and lay there, and my companions saw me. One of them walked in and helped me. The water was fit for the primary purposes of life. My attention was first pointedly called to it in an altered condition in 1841, when I was asked to make an investigation, but I had noticed the impurity before that. The principal change was turbidity, owing to the waste paper fibre coming into it. I examined the whole of the mills in 1840. I first examined the condition of the stream above Bank Mill—the highest mill at Penicuik. It was a perfectly pure stream, and a good sample of river water. I then visited three mills at Valleyfield—the Messrs Cowan's. The water discharged from Messrs Cowan's mill was turbid, caused by rag fibre. That fibre was a light substance, the finer parts of it being of about the same density as water. In running water it would be carried farther than it would in still water. It gave the water a grey appearance, but the water was quite colourless. There were quantities of coarse and fine thread adhering to the stones in the bed of the river below Messrs Cowan's mill. That produced a kind of slippery mud. I went down to Esk Mill, occupied by Mr Brown. There I saw the water from the breaking engines, a quantity of gas refuse, chloride of lime, and alkali water discharging into the river. The waste chloride of lime was retained and put into tanks at Valleyfield, but a certain quantity of it must have escaped from the breaking engines. It was the same at the other two mills of Messrs Cowan. By chemical analysis I found that the quantity of chloride of lime here was too small to affect the water. The water, however, was not fit for its primary purposes. At Auchendinny the water was in the same state but more turbid. At Dalmore it was still more turbid. Before the water reached Roslin Bleachfield it was, I thought, unfit for its primary uses. I next went to Springfield Mill. I observed that the water was still turbid before reaching this mill, but it had recovered itself. I mean by “turbid” that it was in a polluted state. From Springfield and Polton Mills there were the same polluting causes as in the upper mills. I visited St Leonard's Mill. The water was turbid before reaching this mill. The water had become so turbid by that time that the emissions could not very well be perceived, but I did see them. The channel of the river everywhere showed a deposit. The turbid appearance continued down through Lord Melville's and the Duke of Buccleuch's grounds. Before coming to Hawthornden it had recovered to some extent, but was still turbid. The result of my observations was that the impurity arose from the discharge from the mills, and was mainly owing to the emission of the rag fibre. I was told that at all the mills alkaline lye was discharged into the river. There was no attempt at any of the mills to purify the fibrous matter before discharging it into the stream. At that time there was considerable carelessness in discharging refuse from the mills. That applied generally to the mills, but least of all to those of the Messrs Cowan. In 1843 I was, along with Dr Madden, appointed by the Lord Ordinary of the Court of Session to lay down regulations for keeping the stream as pure as possible. We gave in a report. [Dr Christison here read the report which they had prepared.] We again visited the stream in 1844, and found that there was some improvement, but that the water was still impure. The coarse fibre was re-

tained, but the fine fibre went away. I again visited the river on the 19th of this month, and on Friday last, and found the water very much worse than it had ever been before. I found, without making any chemical analysis, that the matters in solution in the river were more numerous than in 1843. About 390 yards above Bank Mill the water was a-little turbid, owing, I think, to the saw-mill above it, but it was quite good for the primary purposes. I can't tell whether our regulations were observed or not. The alkali at Messrs Cowan's Mill was subjected to evaporation and incineration for the purpose of recovering all the available substances, but this was only done with the alkaline lye used for the esparto. The alkaline lye used for rags is not treated in that way, and it was with reference to this that in 1840 I suggested it should be thrown on the heaps that were to be destroyed in the way recommended.

Professor Christison, who was recalled, deponed—I said yesterday the kind of pollution in the river is such as would come from paper-works. I observed in 1840 and now a deposit in the bed of the river. That commenced immediately below the first mill, and was observable below Dalkeith. There was no deposit of that kind in the river when I bathed in it. When that deposit is disturbed the water becomes muddy, and a fetid odour arises from the river. In 1840 I thought the water unfit for man or beast, and it is much worse in 1866.

Cross-examined by Mr YOUNG—When I visited the Messrs Cowan's Mills in 1844 I found that the regulations drawn up by Dr Madden and myself had been observed. I think the result of my visit then was that these regulations were very well observed by all the mills. That was reported in the general report both to the pursuers and defenders. I should also add that we found that additional measures had been used over those we enjoined. New filters had been introduced in the breaking engines, which contained a considerable part of the rag fibre, which otherwise would have escaped into the river. On my visit to the river this year I found that great care was taken by all the owners that no impurifying matter should escape into the river. A great deal of expense must have been incurred in endeavouring to prevent the pollution. I saw that the river had a great tendency to clear itself between Dalmore Mill and Hawthornden. The river is much clearer at the grounds of Hawthornden than it is either immediately above or below Dalmore Mill. When I was at Hawthornden this year I thought I saw one small fish, but in 1843 I saw a great many of them. I made a chemical examination of the water in 1840. This year I made such an examination of the water as to convince me that there was a quantity of salts in the water discharged into the river, but these salts were not subject to putrefaction or smell of any kind. I do not think that the fibre alone was subject to putrefaction. In 1840 there was no organic matter of any description except the rag fibre thrown into the water; now there is, and it is that substance that is subject to putrefaction. The fibre of 1866—the fibre of the rags and esparto—does not differ from the fibre discharged in 1840, except in quantity. I do not think that fibre is subject to putrefaction without the mixture of other organic matters. I presume that that other organic matter is that part of the alkaline lye which is employed in boiling esparto, and which is left in the liquor when it is discharged into the river. At the Messrs Cowan's Mills means were taken to incinerate or

burn up the matter contained in the esparto liquor. In this way a very large part of the organic matter is kept out of the river. On being asked to describe what he meant by turbid, Professor Christison deponed—I think the best definition I can give is that which Shakspeare gave—"Muddy, ill-seeming, look bereft of beauty, and while it is so, none so dry will sip or touch one drop of it."

Dr Frederick Penny, lecturer on chemistry in the University of Glasgow, examined by Mr SHAND, deponed—I have visited the river North Esk about seven times, taking different points on different occasions. My design was to ascertain whether the river was polluted, and if so by what. The first of my visits was on 3d October last, and the last at a very recent date. The water before it reaches Bank Mill, above Penicuik, is good, clear, drinkable water. I have analysed it; but it is changed when it receives a discharge from the first three paper mills. The water in the lade coming from Bank Mill, and before reaching any other mill, is changed in colour, taste, and transparency. As regards the nature of its constituents, I would call it polluted water at that point; and I would say the same in a modified decree of the river water after it passes Valleyfield. The river water from the time it passes Bank Mill till it reaches Dalkeith House is polluted, and never renews its primary state. It becomes worse as it passes the different mills. The physical characteristics of the water may be described as discolour, bad taste, and turbidity. The turbidity is the result of a fibry discharge from the paper-mills. The finer portions of this fibry discharge might be carried twelve miles in an agitated stream. Esparto communicates to the water an unpleasant taste and colour, and a very persistent form. I discovered the taste of esparto in the stream at different points. Besides the fibrous organic matter in the river, I have discovered chlorine, which is peculiarly destructive to animal life. I have detected chlorine about thirty or fifty yards below Dalmore. Chlorine is an elementary gas visible in water. River water has a self-purifying power, but the continuous addition of impure matter from the mills exhausts the restorative ingredient, oxygen, which it contains. The polluting matter from Bank Mill may, I think, find its way past Dalkeith Park. I do not think the restorative power ever eliminates the organic matters in solution received from the Valleyfield Mills. In my opinion, the discharge of sewage from Penicuik would have no material effect upon the river. Supposing there was no sewage entering the river, and that there were no other works but the paper-works on its banks, I think they would pollute the river as it is now polluted at Dalkeith. The water is generally polluted at Dalkeith. I have invariably attributed that to the impurity of paper manufacture. I have no difficulty in tracing the slimy mud on the banks and bed of the river to the fibrous substance from the paper-works, combined with other ingredients from the same source. My opinion is that the smell arising from the river is injurious to health. Assuming that parties could obtain a sufficient supply of water to carry on the works, I would suggest that the rags might be washed and the fibre reduced to pulp, and then conveyed further up the river to the mill for manufacture. In the course of my visits to the river I have seen a great many different polluting liquids discharged into the river from the mills. I observed that a process of incineration was being carried on at Esk Mill,

Low Mill, and at St Leonard's. That process is not applied to any but the first boiling from the esparto. There were other liquors run off the esparto into the river. I know of no process having been applied to recover the soda from the rags. I think that the rag fibre is of a more putrefying nature than the esparto, as there is animal substance contained in rags which you have not in esparto.

By Mr YOUNG—Paper-works are commonly on the sides of streams, for the purpose, I presume, of obtaining water, and also for the convenience of discharging their refuse. The supply of water which is required is for the purpose of making the paper pulp, and the refuse is generated in the course of making the pulp. I see a great disadvantage in making the paper pulp at Penicuik. The paper could be made with equal facility at Prestonpans. I am aware that the incinerating process is a patent one. Witness was examined at some length as to why he stated that the impurities thrown into the river at Penicuik continued to be visible in the river so far down as Dalkeith notwithstanding the restorative power of the water. He adhered to his statement.

By Mr SHAND—I know of no other river so much polluted by paper mills as the Esk.

A. R. CLARK opened the case for the proprietors of Polton, Kevock, and St Leonard's Mill, defenders.

GIFFORD opened for the proprietors of the five upper mills.

The general evidence of the defenders was with the view of showing that the regulations referred to in the evidence of Professor Christison had been complied with; that everything that could be reasonably expected had been done by the defenders to purify the water as it issued from their mills; and that the pollution of the river was in great measure caused by other manufactories, and more particularly by the sewage of the town of Dalkeith. The following is the evidence of Dr Henry Madden:—

I am a doctor of medicine, practising in London. In 1843 I was appointed with Dr Christison to lay down regulations for the guidance of paper manufacturers in the North Esk. I was then residing at Penicuik. The second regulation preventing the discharge of chloride of lime into the river, was afterwards modified so as to permit the discharge in times of flood. That modification was made known to the papermakers, but I do not remember how. My impression certainly was that that discharge in time of flood would not injure the river. I went to Australia in 1863, and returned on the 15th June this year. I examined the river in June last, to see how the regulations had been complied with, and found they had been attended to most carefully. I examined the river to compare it with what it was in 1843, and found it altered in various ways. In 1866 there was much less fibrous matter than before the regulations were brought into practice. Previous to 1843 the conclusion I came to was that the fibrous matter was the chief source of pollution. I found a great deal more had been done than we directed in the regulations to prevent the fibre getting into the stream. Save-alls, filtration, and incineration are now at work in some of the mills. From the appearance of the water at Dalkeith, there is obviously more sewage matter getting into the river than there was in 1843. I had collected for me specimens of the deposits of mud along the course of the river, and examined them microscopically. The specimens were col-

lected by Mr Wahab. I ascertained that mud taken above Valleyfield counting-house before any part of the mill water is discharged, consisted of vegetable matter, small seeds, which were germinating, small stones, and vegetable fibre, but none resembling rag or esparto. The water as it entered the filtering tank contained abundance of fine fibre; on leaving the filter scarcely any fibre was visible. I collected these specimens of water myself, in jars of from 10 to 12 inches high and 3 in diameter. In one of the specimens there was in thirty minutes an eighth of an inch deposit of fine fibre. A small collection of fibrous matters adhered to the sides of the glass and floated on the top. It rapidly fell to the bottom when the vessel was gently shaken. After two and a half hours there was a deposit of 3-16ths of an inch in the jar, and no further signs of settling. The general body of the water continued milky, and on examining it under the microscope I found no fibre visible. Opposite the sluice below Low Mill rag fibres were detected in the specimen of mud I obtained, but no esparto. In mud taken from the dam where the water of Low Mill is collected before entering Esk Mills I found much rag and esparto fibre, especially esparto. At Springfield damhead the mud consisted of grass and leaves, vegetable growth, and a few fibres of esparto, no rag fibre being detected at all. The rag fibre had entirely disappeared. I next examined mud taken above the mill at St Leonard's. It consisted of decaying vegetables, vegetable growths in abundance, but no rag or esparto fibre. Below the damhead at Lasswade Bridge, above the carpet factory, and below all the paper-mills, the mud consisted of vegetable matters, together with abundance of esparto fibre and a few rag fibres. Fifty yards above the middle mill at Lasswade, below the carpet factory, the mud consisted of vegetable matter, very few esparto fibres, and abundance of woollen fibres, many of them dyed in red colours. The general conclusion I have formed is that without the intervention of a damhead rag or esparto fibres might travel about two or two and a half miles, but very little escapes below the damhead next below the mill it leaves. At the upper end of the carpet works there is a soapy discharge of water, loaded with fibrous matters. There are seven or more pipe discharges into the river. I saw a pipe discharging copiously all sorts of coloured matter and very foul during the thirty minutes I remained there. The bed of the river behind the mill is filthy, slimy, and black, and the pipes and walls are foul. Large heaps of ashes are also shot into the river. The bed of the river below the mill is as black as ink; and the water from the paper-mills came over the damhead, and cleansed the dirty stuff that came from the carpet factory. Though there were no mills above Lasswade Bridge at all, the water at Melville would not be fit for domestic purposes. The fibre of esparto or rags cannot putrefy in the strict sense of the term. Putrefaction signifies a decomposition going on, which causes an escape of obnoxious gases. These fibres would decay, but would not produce any offensive smell. I found abundance of vegetable fibre in all the specimens, but I could not have told without the microscope whether it was rag, esparto, or vegetable fibre. Looking at the present state of the water at Dalkeith, and supposing there were no paper-mills on the river, it would not be fit for domestic purposes. From the large amount of sewage that enters it, the appearance of the river at Dalkeith resembles much that of an open sewer.

I observed a smell emitted from the river above Lasswade, Melville, and Dalkeith. It was exactly like that of ordinary sewage. If it had been the odour produced by the esparto washings and coolings I would have recognised it. The odour of the esparto is very perceptible round the precincts of each mill, but I never perceived it when at any distance from the mills. If there was nothing but esparto used on the river, and there was no sewage or other cause of pollution, so far as the sense of smell is concerned there would be nothing to complain of. If the organic matter held in solution in this water was  $2\frac{1}{2}$  grains to the gallon it might make it unpleasant, but it would not necessarily be unfit for domestic use. I certainly do not think that the use of rags and esparto has any tendency to affect the health of the neighbourhood.

Cross-examined by the SOLICITOR-GENERAL—I did not know when I was appointed by the Court to make regulations along with Dr Christison that I was suggested by the papermakers. I am son-in-law of Mr Duncan Cowan, the elder brother of the members of the firm of the Messrs Cowan. He was not one of the partners at that time, but had been originally. I devoted myself to scientific pursuits for a considerable time before going to Penicuik, and was assistant to Professor Christison for several years. (Shown a specimen of water from the settling pond that exits into the river at Valleyfield.) It would not require a microscope to discover that fibre is there, but I cannot tell what fibre it is. I do not think that any person could give evidence with reference to the quality of the fibre without microscopic examination. There are many fibres that look exactly alike, and you cannot distinguish them unless under the eye of the microscope. I would call the specimen I am now shown polluted water. I don't recollect making a report with Professor Christison in 1844. (Shown a report.) I cannot say that I recollect about this. I have not the least doubt that I recommended a process of filtration as absolutely necessary for removing the impurities. There was a filtration through washers in use in 1844 at the mills, but apart from that I do not remember of any other process of filtration in any of the mills. The water was impure in 1844, but according to that report it was improved. I must have told the Cowans that filtration was necessary, and I may have spoken of it to Mr Somerville, but I cannot state the names of all to whom I have spoken on the subject.

By the DEAN OF FACULTY—I do not think that Professor Christison or any man could say with the eye whether the fibre in the glass I have been shown is that of esparto or other fibre. I believe much of it is not distinguishable even with microscopic investigation. In every filter I knew of in 1843, and know of now, the yield is so small of perfectly pure water, together with the amount of space that would be required to filter it, that it would be impossible, consistently with the carrying on of the works, to have such a filter as would be necessary. There is a vegetable matter like rag fibre which is characteristic of sewage, but under the microscope it is perfectly distinguishable.

Professor Hoffman, of Berlin, and several other eminent chemists, also gave evidence on behalf of the defenders.

The LORD ADVOCATE addressed the jury for the pursuers.

The DEAN OF FACULTY addressed the jury for the proprietors of Polton, Kevock, and St Leonard's Mills.

YOUNG addressed the jury for the other defenders.

The LORD JUSTICE-CLERK, in charging the jury, said—Gentlemen, the evidence which has been laid before you on both sides of this case has been so extensive and varied that I feel it would be quite impossible for me to deal with it as I would have done in a case of ordinary length. I cannot call to mind, in the course of my experience, any case in which so large a number of witnesses has been examined, or in which the subject of the inquiry has extended over such a variety of topics. I cannot, in these circumstances, hope to do what in some cases I have done with advantage—present to you a complete abstract or digest of the evidence, with a view to aid you in making up your minds, and therefore I believe I shall best discharge my duty to you and give you the most effective aid I can in the very responsible and important duty which now devolves on you, if I confine myself to an endeavour to present to you as clearly and concisely as possible the true nature and conditions of the question which you have to try, the leading and salient points of the case, and the kind of evidence on which you are entitled and will be disposed to rely in regard to each of these points. To do anything else in this case would only defeat the object in view. I begin, then, by explaining one thing which I feel has not been very clearly explained on either side of the bar, and that is the precise nature of the action which is in dependence between these parties, and the effect of your verdict, if it shall be pronounced in favour of the pursuers. It seemed to be represented on the part of the pursuers that if they obtained a verdict, it would merely give them a sort of power of requiring the defenders from time to time to make such improvements on their works as might be considered necessary or desirable for the purification of the river, without the necessity of obtaining any formal judgment of the Court following on the verdict. On the other hand, it was represented to you by the defenders—or at least seemed to be represented—whether I fully appreciated the views of the learned counsel or no I shall not pretend to say—that the effect of a verdict in favour of the pursuers in this case would be, as they expressed it, to put down the mills, to stop these manufactures altogether on the river Esk, and to annihilate the sources of commercial prosperity, and the whole industry which pervades this part of the country. Now, neither of these views is correct. The nature of the action, which was brought by the pursuers into Court so far back as 1841,—and the subsequent actions are precisely of the same character, and are merely intended to bring into the field different sets of defenders,—is this. In their summons they demand, in the first place, that the Court shall interdict the defenders from polluting the stream; and, in the second place, they ask, in the event of interdict not being granted in these terms, that the defenders shall be put under some reasonable regulations whereby the effect of their operations shall not be to pollute the stream. Now, what I have to tell you in regard to an action of this kind is, that it is an appeal to what is properly called the equitable jurisdiction of the Court; and that when an issue is sent to a jury to try a case of this kind, it is not at all like an issue in most cases, where the verdict of the jury is immediately followed by a judgment out and out in favour of the one party or the other. On the contrary, in the present case the question of fact is sent to be tried by you in the

first instance, whether there is in point of fact a pollution of this river by the defenders; and if that fact shall be ascertained to the effect of your finding that there is a pollution of the river by the defenders, the legal effect comes to be judged of afterwards, and the remedy to prevent the pollution for the future is a matter entirely in the discretion of the Court, and is not at present a subject for your consideration at all. But it does not in the least degree follow, nor is it for one moment to be contemplated as a possible result, that merely because you return a verdict affirming that the river has been polluted by the defenders, there is therefore at once to be a judgment of the Court putting a stop to the future operations of these mills. The precise words of the issues and the exact questions of fact on which you are to return an answer I will explain to you immediately; but before doing so there is another matter of law in regard to which I must give you certain explanations and directions, and that is in regard to the relative rights of proprietors of a stream of this kind who may be classed as upper and lower proprietors. The mutual obligations of parties so situated are very clearly and distinctly defined and fixed in our law, and the principles of the law regulating such rights are founded on such obvious considerations of justice as well as public policy that you will at once appreciate and understand them when I state them to you, and you will find them of the utmost value in the consideration of the evidence in this case. But, in the first place, it is necessary to state to you a distinction which has been greatly lost sight of in the course of the argument from the bar, and that is the distinction between public and private waters. A public river—that is, a river which is fit for navigation—navigation of any kind, not merely by vessels of large burthen but by boats, whether it be fresh water or salt water, whether it be a tidal river or a river in which the tide does not ebb and flow—is public property. It is vested in the Crown for public uses, and chiefly for the uses of navigation; and to such public uses all private rights are subordinate. No man who has a property on the banks of such a stream as that can set up any title or interest in himself which shall for one moment be allowed to compete with the public uses to which that river is dedicated. The property of the river is in the Crown, not in the proprietors of the banks. It is vested in the Crown for the protection and promotion of public rights and uses. But in regard to a private stream—that is to say, a stream which is not navigable—precisely the reverse is the case; because when a proprietor has both the banks of a stream of that kind, he is also absolute proprietor of the bed of the river. It is part of his estate; and there can be no better illustration of that than to consider for a moment how some of the defenders have treated this stream as it passes through their properties. They carry off the entire water out of the bed of the river into a mill-lade, sometimes of very great length, and serving in one case no less than four different paper-mills before it is returned to the stream. That could not be done with a public river, and the reason why it can be done with a stream like this is simply because the bed of the river is the property of those millowners who so use it; and they are entitled to use the water in any way they like as it passes through their property, subject to certain conditions; and these conditions are, that they shall send down the water to their neighbours below undiminished in quantity and unimpaired in quality. Now, these

are plain simple rules applicable to the correlative rights and obligations of upper and lower proprietors in a private river. No doubt it may be said—and truly said—that the conditions which I have mentioned must suffer certain limitations. There is a certain diminution in the quantity of the water as it is used by every person in passing through his property. There is a certain consumption of water for domestic uses, and there is an evaporation going on constantly in the stream which will diminish the quantity by natural causes, and therefore it cannot be said absolutely that the water is sent down from the upper to the lower proprietor quite undiminished. The meaning of the condition is this, that it shall be sent down undiminished by anything except the natural and primary use of it by the people on its banks. And as regards the matter of purity, it is impossible in the nature of things that a running stream should not receive in its course certain impurities as it passes along. The action of nature is inconsistent with such a condition as that, but the meaning of the condition is this, that no unnecessary or artificial impurity shall be put into the stream so as thereby to affect the purity of the water as it passes to the proprietors or inhabitants below. You can see therefore, gentlemen, that in dealing with a case of this kind it is quite in vain to appeal to the condition of such rivers as the Forth or Clyde, or any of our public rivers used for public purposes. You will at once see that no question like the present could by possibility arise in regard to these rivers; that it is only on a private stream, such as the North Esk, that a question of pollution of this kind could possibly be raised. Keeping these simple points in view, I beg your attention to the precise terms of the issues. It has been said that these present to you a very complicated case. There are so many defenders and so many pursuers that I think it has been said that this inquiry embraces some fourteen or fifteen cases, each of which might have been made the subject of a separate trial. I think it is very fortunate, gentlemen, that it is not necessary to have fourteen or fifteen trials instead of one in a case of this kind, and I am still further of opinion that there is no difficulty in trying the question in one trial. That was the opinion of the Court when these issues were framed to be tried by you—and everything that I have seen of the conduct of this case during the leading of the evidence and in the speeches which you have heard has strongly confirmed me in the soundness of that opinion of the Court—that it was most desirable that this question as to the pollution of the Esk by the paper-mills on its banks should be tried as one question, with all the persons interested in that question fully represented at the trial. But let us see whether the issues do really present so complicated a case as seems to be apprehended. Take, in the first place, the first two issues, which are directed against the Messrs Cowan, and which apply to their three mills. There are two issues instead of one against the Cowans only for this reason, which is a mere accident, that in 1853 there was a change in the firm, and consequently the company that had the mills before 1853 is not the same company that had them after, but there is no other difference whatever between the first and second issues, and therefore you may deal with them as in substance one issue against the Cowans. Then in regard to the third and fourth issues, the same observation holds, these presenting the case against Dalmore Mill, occupied by Messrs Sommerville & Son; but here again it

happens that in 1856 one of the partners of that firm died, and consequently there was a change in the constitution of the firm, so that it is not precisely in law the same firm that carried on operations before 1856 as after it, but that is the whole difference between these two issues. You see, therefore, so far as we have gone, that the first and second issues are to be considered as one issue against the Cowans, and the third and fourth as one issue against the Sommervilles, always subject to any distinction as to the period which you may find it necessary to make on the evidence. The fifth and sixth issues are directed against Polton Mill, belonging to Messrs Annandale & Son, and the same observation applies there, so that the first six issues really embrace the case as between the pursuers and three sets of defenders. The other three issues stand in a somewhat different position, because in regard to each the time is different, as you will observe. The seventh is directed against Messrs Brown & Co., Esk Mill, and as that firm did not begin till 1856, the issue is confined to the period between 1856 and 1864. In regard to Mr Fullerton Somerville of Kevock Mill, the case goes no further back than 1848; and in regard to Messrs Tod of St Leonard's it does not go further back than 1843. Now you will require, in regard to these issues, to observe what are the interests of the different pursuers; and here it becomes necessary to make another distinction—a distinction which the defenders themselves have very wisely and very markedly made—by assigning the defence of three of their mills to the Dean of Faculty, and the defence of the rest to Mr Young. Mr Young's clients lie above Hawthornden, and they are the Messrs Cowan of Valleyfield, Messrs Brown of Esk Mill, and Messrs Somerville of Dalmore. The three other defenders, represented by the Dean of Faculty, are the proprietors of Polton, Kevock, and St Leonard's, which all lie below Hawthornden and between it and Melville and Dalkeith. You will observe, therefore, in the geographical position of the properties, that the only mills of which the proprietor of Hawthornden complains, or can complain, are the mills represented by Mr Young, because these are the only mills lying above his estate, and consequently the only three which can send down pollution to him. The other pursuers, Lord Melville and the Duke of Buccleuch, lie below all the mills, and they complain of pollutions which are sent down by the whole six or eight mills. It was said—and a great deal of the case turns on the view that may be taken of this—that to entitle any one of the pursuers to obtain a verdict against the particular defender, he must prove that that defender has polluted the stream within his property. Now, if that means that it is incumbent on the pursuers to prove that one of these mills—say the farthest up—would be sufficient of itself to pollute the river on his property, although all the other mills were stopped, I must tell you that that is not good law, and not the true construction of these issues. The law which I give to you on that matter is this, and I beg your particular attention to it:—

“It is not indispensable for each of the pursuers to prove that any one of the mills would of itself, if all the other mills were stopped, be sufficient to pollute the river to the effect of creating a nuisance to him. It is sufficient to entitle each of the pursuers to a verdict on any one of the issues to prove that the river is polluted by the mills belonging to the defenders generally, to the effect of producing a nuisance to him, and that the defenders on that par-

ticular issue materially contribute to the production of the nuisance to him. But it is indispensable for each pursuer to prove that the river is polluted by the mills of the defenders so as to produce a nuisance to him, independently of any nuisance to the other pursuers, or any of them, and that each of the defenders against whom he asks a verdict materially contributes to the production of such nuisance to him.”

I have (continued his Lordship) put this in the shape in which I have now read it for the convenience of my friends at the bar, but I will explain it a little more, lest you should not have followed the concise language in which it is put. What is meant is just this:—It may be alleged that if there were only one paper-mill on this stream, say one of the mills of the Messrs Cowan, the action of that mill alone would not be sufficient to create a nuisance by itself at Melville and Dalkeith. That is very possible, and it may even be possible that any one of these mills, no matter where situated, would not be of itself sufficient to pollute this stream so as to create a nuisance, because you will at once see that pollution is a matter of degree. In one sense of the word, every running stream is polluted to a certain extent, as I said before, by natural causes, or by the carelessness of the inhabitants on its banks in allowing small impure matters to pass into the stream. But then the stream has a restorative power in itself which very soon gets the better of these, and so it may be that the river has so much restorative power in itself that the erection of one manufactory of a particular kind on it will not pollute it to such an extent as to make a nuisance, and yet that the erection of several will pollute it, so as to render it quite unfit for the primary uses of water. Now it must be obvious to you, and that is the meaning of the direction in point of law that I have to give to you, that it would put an end altogether to any possibility of the proprietors on the banks of a stream like this complaining of a manufacturing nuisance if they were not entitled to complain when the extent of manufacture has reached to that point that it produces pollution. So long as no pollution is produced they cannot complain of the existence of a manufactory. They have no title to complain. Their single title to complain is that they are hurt when the water on their property is polluted by that means, and until they are so injured they cannot complain; but when the extent of the manufacture has become such as to produce pollution, then the title to complain arises. Now, gentlemen, I think that will enable you to understand without much difficulty the question which is to be tried under these issues, and also the case you have to determine as between each pursuer and each separate defender. And now I proceed to give you some general views as to the application of the evidence which you have heard. The case of the pursuers is this—that before 1835, or thereabouts, this river was in such a state of purity as to be fit for all the ordinary and primary uses of running water. Now, the primary uses of running water, as the water is actually used and enjoyed, will vary a good deal according to the size and nature of the stream. A very small rill close to its fountain-head will be the purest of all running streams probably (unless it happens to come from a polluted source), and there it will be the best adapted and most used for primary purposes. But after the stream has run through a peaty district, or a coaly district, or any other district, it is likely to communicate some impurities to it, and

it will no longer be so eligible for drinking purposes, but still it is not a river thereby unfitted for primary uses generally. River water—that is to say, the water of a considerable stream—is never by anyone thought good drinking water, though there is no particular source of pollution in it. Its long exposure to the air is of itself sufficient to make it less agreeable as drinking water, and the various small pollutions it receives in its course all contribute to the same result. But still that is not a river which has changed its character. It is in its natural condition, and is still suitable for the primary purposes of water generally—for washing, bleaching, cooking (it may be under certain limits), for watering cattle, and the like. Now, that is the condition in which the pursuers say this river was before 1835, or thereabouts, and their case is that from that time it began to be polluted in such a way by the operations of the papermakers as to convert it from a water fit for primary uses into a water unfit for primary uses. Now, that is what is called pollution, and if the pursuers make out their case to that effect, then they are entitled to ask you to affirm that these defenders have polluted the river, because pollution just consists in rendering water so impure that whereas before it was fit for the primary uses of water, it is now unfit. But the Dean of Faculty said to you, and said very properly and very soundly, except in regard to a particular turn of expression which I shall endeavour to correct, that if, from time immemorial before 1835, it could be shown that on this river the primary uses had been superseded by other and secondary uses, then the pursuers cannot prevail, because the thing that they are complaining of is the pollution by these defenders after 1835—that is to say, the conversion of that water after 1835 from one state to another state—not a mere deterioration of it, but a conversion of it from one intelligible and distinct condition to another and different condition, constituting pollution. The Dean of Faculty said that if the primary uses had from time immemorial been subordinated to other uses, that would sufficiently bar the pursuers from claiming a verdict. Now, that is a little ambiguous. It may mean that this river had been used before 1835 for manufacturing purposes, but it may have been used for manufacturing purposes, and many rivers have been so used, without polluting the stream in the legal sense of the term—that is to say, without superseding and putting an end to the primary uses of the water—and if that were the meaning of the phrase, then it would not be sound in point of law. It is quite sound to say, and that is the most material point for your consideration, that if it be shown that from time immemorial this river has been devoted to such purposes as to render it unfit for the primary uses, then the pursuers cannot prevail. But if, on the other hand, they have satisfied you on the evidence that before 1835 this water was fit for the primary uses of water, and was so used, and that after 1835 it has by the operations of the defenders been rendered unfit to be used for these purposes, then they are entitled to prevail, unless there be some other ground on which their case can be met and their rights voided. Now, gentlemen, the great bulk of the evidence has been directed to this question—the state of the river before 1835 and the state of it after 1835; and when I say 1835, you will understand distinctly that I do not mean 1835 pointedly and precisely, but about that time. In short, if you can contrast, as the pursuers ask you, the earlier period,

before the period embraced in the issues as a period of purity with the period embraced in the issues as a period of impurity, then they are entitled to prevail. I have said that I am not going to trouble you with much reference to the evidence but for purposes of illustration I shall advert to a passage here and there merely for the sake of making my meaning more intelligible; and here it occurs naturally to observe that there could not possibly be two witnesses better qualified to speak of the change which is alleged to have taken place on this river than the two gentlemen who were selected by the parties and by the Court to inspect it in 1843, with a view to making those regulations of which you have heard—I mean Dr Christison and Dr Madden. Dr Christison is a man of great skill and experience in matters of this kind, and Dr Madden had the advantage of being his pupil, and of acting as his assistant for a considerable number of years, and so acquired also a good knowledge of the subject. They were both well acquainted with this river in the earlier period, when it was said to have been in a state of purity, and they went with all the lights of their scientific knowledge, and with all their local and personal knowledge in addition, in the year 1843 to visit and inspect this river. It is, I think, to be regretted that Dr Madden was not asked anything about the condition of the river before that period. He described to us in his evidence the state of the river as he found it in 1843, and he also gave us some very valuable evidence about the condition of the river now, but he was not asked by either party what was the condition of the river previous to that period, though he was for some time a resident on its banks. But Dr Christison was asked to give a description, and he did give a very precise and instructive description of the river as he knew it before 1835, and indeed much earlier than that, and the river as he found it on his inspection in 1843, when he went to look at it, not for the purpose of an impending trial and on the employment of one of the parties, but as a species of referee for the instruction of the Court. His evidence therefore appears to me to be entitled to great weight, and I shall present you with some part of it. His Lordship then read the evidence of Dr Christison, remarking that that was an example of the kind of evidence on which the pursuers relied in proving a contrast between the earlier and the later condition of the river. There is (said his Lordship) a very great body of evidence bearing on the same part of the case, which, for the reasons I have already stated, it would be in vain for me to attempt to go through, but which I have no doubt will be in your recollection, and will receive such weight as it is entitled to. The question in this branch of the case on which you must make up your minds is this, whether about the time spoken of in the issues there was such a change in the character of the river as to answer to the definition or description of pollution as I have explained that term—whether there was a change, so that, instead of being fit for the primary uses of water, as it was before, the river water became unfit for these purposes. It was in 1841, as you have been informed, that this action was first raised, and it is but justice to both of the parties to say that the reason apparently why this case was not then brought to trial was that both of them were exceedingly desirous to come to terms if possible, and to find some means of effecting such a purification of the water as would satisfy the reasonable demands of the pursuers, and, at the same time, not materially interfere with the



manufacturing operations of the defenders. I think both parties are entitled to much credit for what they then did, and if the delay which has taken place in the trial of this case for so long a period as some twenty-five years is at first sight an unfavourable circumstance for the pursuers, you must, of course, not give it more weight than it is entitled to, considering the way in which the delay began. After the case came into Court a proposition seems to have been made that men of skill should be sent to examine the water, and the various mills on it, and see whether something could not be done to effect the great object which both parties had in view, and the result of that was the regulations prepared by Dr Christison and Dr Madden. Now, gentlemen, it seemed to be contended at one time that these regulations formed a permanent contract between the parties, from which neither of them could resile, and that so long as the defenders complied with the regulations of Dr Christison and Dr Madden, it was no longer open to the pursuers to challenge their proceedings as polluting the river. I rather think that is not now intended to be insisted in, but if it is, I must tell you in point of law that that is not the effect of what was then done. The regulations of Dr Christison and Dr Madden bear on the face of them to be a temporary and experimental proceeding, and whether it was ultimately to settle the question between the parties depended entirely on the success or the non-success of the experiment. If a compliance with the regulations which these gentlemen had laid down had been sufficient to secure the purity of the river to a reasonable extent, and so as to satisfy the pursuers, then it was contemplated by both parties that they should become the basis of a permanent arrangement, which would have put an end to the action and taken it out of Court. But as the matter stood on the report of Dr Christison and Dr Madden, it was, as I have said, nothing but a temporary and experimental arrangement. His Lordship then read a few passages from the report to bear out that observation, and proceeded—Now, gentlemen, it must be perfectly obvious to you that the great aim of the parties then was to make attempts and experiments to abate the evil complained of. No doubt it must not be held that the defenders were thereby confessing or admitting that they were polluting the water within the meaning of these issues. It would be most unfair to press this arrangement against them as meaning anything of the kind. They are content for the time to assume that their works pollute the water in order to enter into a temporary arrangement with the view of seeing how far the alleged evil could be abated; and it was in the most proper spirit that the parties acquiesced in that. Now, gentlemen, I am bound to say further as regards the defenders, that I think they seem, according to the evidence, to have complied very fairly and in very good faith with the provisions of the temporary rules which were laid down by these two men of skill. I think that is very plainly the result of the evidence. You will judge for yourselves; and I think also that some of these defenders—if it be not invidious, I would say it more especially of the Messrs Cowan—have devoted a great deal of care and attention to the devising of means for abating, so far as they possibly can, the nuisance complained of. I think that is quite clearly proved, and I think these gentlemen (the Messrs Cowan) have the greatest credit for doing so; but still, gentlemen, that does not solve the question before us. The parties on both sides,

and the defenders in particular, may have been most anxious and desirous to abate as far as they could the evils complained of, and yet they may not have been able to do it. How far they may be compelled to do so, and what remedies the pursuers may obtain if it should be found they are entitled to them, is quite another affair. That the defenders have tried to abate this nuisance, to lessen it, and modify it as much as possible, will not answer the question that is in the issues, because that question is whether their operations do pollute the stream, not whether they are anxious to avoid it. They may have done all that is in their power to allay it. The simple question is whether their operations pollute the stream. But, gentlemen, there is another branch of the case on which the defenders placed great reliance, and to which I now proceed to call your particular attention, and that is the scientific evidence that has been laid before you. The effect of it, they say, is to show there is in reality no serious pollution of this stream; and that if the stream was pure before, it has not ceased to be so—at least by any operation of theirs. Now, the witnesses of skill who were examined before you are undoubtedly men of well-known ability and of great reputation, and I make this remark with reference to the witnesses on both sides. I have seldom seen an assemblage of gentlemen on both sides of higher reputation and greater skill than have been examined before you at this trial; but we must always receive with caution the results and inferences of science as applied to a practical question of this kind. Far be it from me to undervalue in the slightest degree the merits of those scientific investigations; but you must be mainly guided, as your good sense will tell you, by facts rather than inferences or reasoning; and you must consider the evidence of these witnesses as consisting of two parts—consisting of observations by themselves of facts which they tell you, and which you are to consider and apply; and of speculation, with regard to which you are entitled to judge for yourselves what the weight of it is, and how far it is to influence your minds. Neither you nor I, nor any gentleman professionally concerned in this case, is sufficiently educated in the sciences of which we have heard so much to be able with certainty to follow all the reasonings and inferences of the scientific witnesses we have heard. It is impossible that we can do so, and therefore we must receive these inferences and deductions with great caution and circumspection, and make sure that we do not allow them to take the place of facts, or to supersede facts, and override and control facts which are proved by credible testimony. That part of the evidence of these scientific witnesses which consists of their own observations is undoubtedly entitled to the very highest weight, because their observations are necessarily of the most important kind. They are men who have their eyes open to such facts, and their inspection and visitation of a river such as this is a thing which cannot but be of the greatest value in the question, independent altogether of the opinions and speculations which they present to you. Now, I propose, for the purpose of illustrating what I have now been saying, to call your attention shortly to some portions of the evidence on both sides. His Lordship then quoted the principal portions of the evidence given by Dr Lethby, Dr Madden, Professor Odling, and Professor Hoffman, on behalf of the defenders, and proceeded to say—Now, I have thus endeavoured

to give you examples both of the observations and of the deductions of these witnesses; and they are in many respects remarkable. One thing that strikes me as peculiar, and with regard to which you must make up your minds, is that those gentlemen say that there is no smell in this river arising from the paper-mill discharges, and that indeed there is no smell in the river at all till you come down to the sewage of Lasswade. They could find it nowhere. Some of them seemed to have great difficulty in finding the deposits of mud of which we have heard so much; but the two last witnesses say that mud is characteristic of the river all the way down. If the opinion of Professor Odling is to be relied on—and it seems to me to be consistent with what one would expect from the operation of natural causes, namely, that the deposit of all the fibrous matter in the river—no matter how near to each mill the deposit may take place—is not a permanent deposit; but, on the contrary, is liable to be disturbed and removed by every flood—that seems to be quite consistent with the conclusion of some of the witnesses that the slimy deposit is found in every part of the river. But then they say it is not the least offensive to the nose, and there is no bad smell. It gives the water a disagreeable colour in appearance, black and slimy at the bottom; but it is not injurious to the quality of the water and not injurious to health. These are some things with regard to which these witnesses differ a good deal; and it is not astonishing that there should be a difference of opinion among these people. Professor Hoffman, who was said to be the greatest living chemist, remarks that there is nothing for depositing fibre like a fast running stream. Everybody else says that a running stream will carry down the fibre and it is only when you get it into still water that you will have a deposit.

Mr YOUNG—If the bottom is quite smooth.

The LORD JUSTICE-CLERK—That is not according to my notes. But it does not matter very much what Professor Hoffman says, because there are half a dozen witnesses who say that the place to get the greatest deposit is in still water. It is not of much consequence, but it merely shows the danger of relying on opinions of that kind. The main thing, and the thing for which this evidence is chiefly valuable to the defenders, is this, that they say that the decomposition of fibrous matter is not attended with the evolution of any noxious gases, and therefore that it is impossible that it can produce a bad smell. But then, gentlemen, you will turn, on the other hand, to the evidence of smell. There is a great deal of that with which I am not going to trouble you. There is the evidence of persons who say that when you take your stick and stir up this black mud, which is characteristic of the bed of the river all down, you immediately produce a most offensive smell. In regard to the same subject, you will find in the evidence of the scientific witnesses for the pursuers a good deal of matter that is of importance for your consideration. I now call your attention as shortly as I can to them. His Lordship then quoted portions of the evidence given by some of the pursuers' witnesses—Professor Miller, Dr Frankland, Professor Penny, and Dr MacLagan—and proceeded: This evidence of the scientific witnesses adduced on both sides exhibits no doubt a considerable variance of opinion, but I think they all substantially concur in holding that there is a certain deposit of mud which is characteristic of the river in its present state—a peculiar and distinguishing feature; but then

they differ as to where this mud is to be found, and also as to its extent. A majority, however, undoubtedly say that it prevails generally in the bed of the river the whole way down from Penicuik to Dalkeith. Now, what this mud consists of, and what are its conditions and characteristics, is really the question to solve. Some gentlemen go and examine it, and say they can find no offensive smell. Other gentlemen, by the evidence of their senses, have arrived at the conclusion that the smell is most offensive; and they say this is from the development of noxious gases. Other gentlemen say that it is impossible, so far as fibrous matter is concerned, as decomposition of vegetable fibre gives out no gas at all. That is the kind of case you have to deal with on this branch of it. It is for you to say, applying your minds to the evidence generally, in a common-sense light, not attaching too much importance to the speculations of science, or even to things that are stated to you as scientific facts, which you have no means of testing the accuracy of; but taking the evidence as a whole, and giving more weight to facts than speculations, whether there are in this river, throughout its course between Penicuik and Dalkeith, deposits of offensive mud which are the result of the operations of the defenders at their mills, and which have the effect of rendering the water of this river unfit for its primary uses. Then the next point for consideration which is suggested by the defenders—a very important point it is in itself, especially as regards the principles of law applicable to it—is this, that there are other polluting causes—that the mills are not alone polluting, that they are not so much to blame as other causes—and that the river is so polluted, particularly from sewage, in the lower parts at Melville and Dalkeith, that though you were to stop the mills to-morrow it would still be polluted water from that cause. Now, gentlemen, it is necessary to be very careful in dealing with this part of the case. I must beg your particular attention to one or two observations here as to the bearing of that part of the evidence. A river may be polluted from a variety of causes, and by a variety of persons. It may either be polluted by a number of different persons doing the same thing, putting in the same kind of impurity, or it may be polluted by a number of different persons putting in different kinds of impurities. Now, when the lower proprietors and inhabitants upon a stream find themselves injured by such pollution, they are, of course, entitled to complain, but it must be obvious to you at once that if the pollution is very various, and a great many persons are engaged in different kinds of pollution, it is not possible to put them all down at once without difficulty; and therefore, as a general rule, when pursuers in such an action as this complain that a particular manufactory or set of manufactories is polluting the water, it is no answer to them, and no defence in such an action to say—"Well, but other people are polluting it too." It is a different thing, and I will consider it immediately, if they can say the pursuers are doing the very same thing; but if all they can say is, other people are polluting the stream as well as we, that is no justification of their proceedings, because the plain answer to them is—"Very well, if other people are polluting it, we shall challenge them too, and put an end to their pollution as well as yours; but in the meantime stop your pollution, and then we will deal with the others." Therefore, gentlemen, it appears to me that a great deal of the evidence you

have heard about sewage which is thrown into this river has not much to do with the case. If the village of Lasswade discharges its sewage into this river it is doing what is illegal, and may be stopped if it has the effect of polluting the river. But the village of Lasswade is not represented by any of the pursuers of this action. Something was said about Lord Melville being superior of the ground at Lasswade. I am sure I do not know whether that is the case or not, but though it were the case it would not affect the question in the slightest degree, because nobody can know better than you that a feuar is just as much the independent lord of his estate as the biggest nobleman in this land, and nobody can interfere with him in the exercise of his rights of property. Therefore to say that the superior of land is answerable for impurities thrown into a river by persons who happen to hold from him a feu would be the most unreasonable thing in the world. So, in regard to the town of Dalkeith, it is quite in vain to say that the town of Dalkeith throwing sewage into this river is the same thing as the Duke of Buccleuch throwing sewage into it. Do you imagine that the town of Dalkeith is under the control of the Duke of Buccleuch, or can he by his own orders and direction prevent pollution from going on? The remedy he has against the town of Dalkeith is the same as against these defenders—to convene them in an action of law, and get the nuisance abated by that means. Therefore as far as that is concerned it has really little to do with the case. But there is another point in connection with this part of the defence which also requires separate attention. It is said that Lord Melville is himself the cause of the pollution in the river. That, if it be made out, is a much more important defence, as far as that part of the river is concerned. Now, how does this matter stand? In the first place, it is said he was himself at one time the owner of a paper-mill. Now, that is quite true, but that paper-mill existed only when paper-mills did not pollute the river, if you are satisfied about the condition of the river before 1835. It came to an end in 1828, and it is not said that any of the paper-mills on the Esk, or all of them put together, polluted the river so early as 1828. The amount of manufacture was not so large as to produce that effect. The water still remained, according to the evidence of the pursuers, in a condition to be used for primary purposes. Therefore, so far as that paper-mill is concerned, it does not appear to me that it affects the position of Lord Melville as pursuer. But then he has got a carpet factory. They say that is a source of pollution of the river, and so it undoubtedly is. I do not think it is possible to have listened to the evidence without coming to the conclusion that that carpet manufactory pollutes the water; and, gentlemen, it comes to be a question of law how far Lord Melville is answerable for that. He is not the manufacturer. He is only the landlord and owner of the mill. Now, we have not had attention particularly called to the terms of the lease which he has granted to the tenants, and it depends entirely upon the terms of that lease whether he is answerable for the pollution that has taken place. If the lease authorises the pollution, then the landlord is responsible. If the lease does not authorise pollution, and the tenant, without any authority from the landlord, commits the pollution, then the tenant only is answerable, not the landlord. That is a question which has been decided upon various occasions, and rests obviously upon very clear and sound principles.

So that unless it could be shown by the defenders that the tenant of the carpet manufactory was authorised by his lease to pollute the water and carry on such operations as would pollute the water, Lord Melville cannot be made answerable for that. Now, gentlemen, there are just one or two other special matters that I think it necessary to say a word upon before concluding. In the first place, to revert for a few moments to the question as to the condition of the water before this alleged pollution began. You will, of course, understand that in order to prove pollution and entitle the proprietors and inhabitants upon the banks of the river to complain, it is not indispensable that the water previously should have been of the highest possible character. The character of water as drinking water, or as water for watering cattle and for washing and other domestic purposes, varies much; and what is called fair river water—an expression used by some of the witnesses—is water that is applicable generally to these primary purposes, without being of the highest possible quality, without being equal to the spring water found in the same neighbourhood. If it be good river water, then it must be protected from pollution; and the question therefore, in that early period, is not whether there were any works upon this stream, or any discharges into the stream, that might possibly deteriorate its quality. That may be, and yet the water may be fit for primary purposes; and, if it be fit for primary purposes, it will still be a water that the inhabitants on the banks are entitled to have protected against pollution. Now, there are discharges of iron from the coal mines, there is a peaty admixture, and there are wauk mills, and other little works on the river, from which there no doubt proceeds a certain amount of impurities, but these are very small in quantity, and have little effect on the river. So it was with the paper-mills as they existed in the early part of this century; they were innocuous, and did not convert the water into water not fit for the primary purposes. There was something said about proceedings in the year 1843, when an application was made to Parliament by the millowners and certain proprietors on the North Esk for powers to construct a reservoir at Carlops, under the authority of which Act the reservoir was constructed. I was not very able to see what benefit was to be obtained from that. The existence of manufactures on this stream is, no doubt, a fact stated in the preamble of the Act. Can any doubt that? There have been manufactories on this stream, as we have been told, from the beginning of the last century. There are manufactories established upon many streams of this kind—one might almost say upon most of the streams in this country—that are large enough to act as water power, but it does not follow that the various streams are polluted. That is a totally different thing. What was the object of that application to Parliament? To increase the volume of the water in the river. Surely that was not to produce pollution; on the contrary, was it not as a cleansing medium for the purpose of operating as far as possible in aid of that particular arrangement which the parties on the banks were making for the purpose of, if possible, abating this nuisance? Could anything be more reasonable than that the pursuers and defenders engaged in this action at that time, when they were endeavouring to come to a compromise, and endeavouring to prevent the pollution of the water by the discharges from the paper-mills by all manner of artificial contrivances—could anything be

more reasonable and proper than that these parties should go jointly to Parliament for powers to get an increased flow of water? It seems to me that that is a thing for which both parties ought to be commended, just as they are to be commended for having endeavoured by the arrangement of 1843, in this action, to get rid of the impurities of the stream. That really concludes all that I think necessary to say for your guidance in considering the evidence. Let me just, in conclusion, once more say this—you will require to consider the case of each pursuer against each defender. For example, beginning with the proprietor of Hawthornden as pursuer, you will require to consider his complaint as against each separate mill—first, the Messrs Cowan's; second, Mr Brown's, or Esk Mill; and third, Mr Sommerville's, or Dalmore Mill. If you find the water at Hawthornden polluted with this slimy mud, or other causes, and conclude that it comes from the paper-mills, it does not necessarily follow that any of it comes from the Valleyfield Mill. That is the question for your consideration. It may all come from Dalmore, or it may come partly from Dalmore and partly from Esk Mill, and none from Valleyfield Mill; or it may come from all three. You have heard the evidence—I need not go back on it again; but it seems to me a most important part of the evidence—as to the effect of floods on the river in carrying down this deposit, however near it may have been originally deposited to the mills that produce it. You will consider whether the existence of the Messrs Cowan's mill and their production of this matter, even supposing it to be deposited close to their own mills, does or does not materially contribute to the pollution at Hawthornden. If you think it does not, you will of course find a verdict in favour of the Messrs Cowan. If you think Esk Mill does not contribute to it, you will find a verdict in favour of that mill; and if you think there is no pollution at all from any mill, you will find for the whole of the defenders in regard to the proprietor at Hawthornden. When you come to the other two pursuers, at Lasswade and Dalkeith, you have exactly the same process to go through. Take Lord Melville, in the first place, and say whether the water in his estate is polluted, and then say whether all of the mills above it—that is to say, the whole of these mills represented by the defenders—do each and all of them materially contribute to the production of that pollution, or whether you trace it to the lower mills only, and find that it is not contributed to by the mills higher up. Then take the case of the Duke of Buccleuch, and deal with it in exactly the same way. I think, gentlemen, you will find, if you consider the issues in that way, that although this is a case which has naturally led to the collection of a great mass of evidence, it is not in itself the complicated case that was represented. The questions which I have thus endeavoured to present to you are, I think, plain questions in themselves. They may be difficult to solve, because of the great mass of evidence and contrariety of the evidence. Quite true, but the questions in themselves are perfectly plain and distinct, and I am quite sure, from the great attention you have given to this case—the unwearied and assiduous attention you have given to it—you will in the end come to a perfectly sound and just conclusion on the whole matter.

The DEAN OF FACULTY—Before the jury retires there are some matters I should like to draw your Lordship's attention to. We understand your Lordship laid it down as a general proposition that

“the water in the river must be sent down undiminished by anything except by its natural and primary uses”——

The LORD JUSTICE-CLERK—Oh, no; that, I think, is very like nonsense. I certainly did not say that.

The DEAN OF FACULTY—“And that there must be no unnecessary or artificial operation by the upper heritors which shall diminish or impair the purity of the water as sent down to the lower heritors.”

The LORD JUSTICE-CLERK—That is nearly correct; not quite.

The DEAN OF FACULTY—I would except to that general proposition in the generality of it.

The LORD JUSTICE-CLERK—You must, in order to found your exception, take the whole of the propositions I laid down about water rights, and not a part only.

The DEAN OF FACULTY—I thought I had taken it down nearly exactly. We understand your Lordship to lay it down that the upper proprietors must send down the water undiminished in quantity and unimpaired in quality. There was a limitation to that in regard to the consumption for domestic uses. Then we understand your Lordship to say that the water subject to that limitation must be sent down undiminished by anything except by its natural and primary uses, and that there must be no unnecessary or artificial operation by the upper heritors which shall diminish the quantity or impair the purity of the water as it is sent down to lower heritors.

The LORD JUSTICE-CLERK—I shall write out the direction I gave.

The DEAN OF FACULTY—I ask your Lordship to lay down, however, that in such a question the law does not regard trifling inconveniences—that in determining the question raised in the issues, time, locality, and all the circumstances should be taken into consideration by the jury, and that in districts where great works have been erected which are the means of developing the national wealth, persons are not entitled to stand on extreme rights or complain of every matter of annoyance.

The LORD JUSTICE-CLERK—I think that is not a direction to the jury, but a consideration for the Court. It is not for the jury at all. The question sent to the jury to try, as I endeavoured to explain to them, is a pure question of fact.

The DEAN OF FACULTY—I put it as a limitation of your Lordship's general proposition.

LORD JUSTICE-CLERK—Well, I shall not give that direction.

The DEAN OF FACULTY—Then in regard to the use of the water at Melville and Dalkeith, I ask your Lordship to tell the jury that if they are satisfied that the primary uses of the water are destroyed at Melville and Dalkeith with the consent or acquiescence of the pursuers by causes arising below St Leonard's Mill for which none of the defenders are responsible, they must find for the defenders on all the issues as far as regards the Duke of Buccleuch and Lord Melville. I also ask your Lordship to construe the terms of the tack of the carpet manufactory to the jury, and to tell them that under the terms of that tack, granted by Lord Melville to Messrs Whytock & Co. in 1834, he is responsible, in this question with the defenders, for the use made of the water by Messrs Whytock & Co. and their assignees.

The LORD JUSTICE-CLERK—Is the tack of 1834 the existing tack? There is another one of 1847.

The DEAN OF FACULTY—The tack of 1847 is the

operative one. From 1834 to 1847 it was worked by Messrs Whytock, and the lease was renewed to Messrs Henderson & Widnell after 1847 for twenty-one years, it being at the time a carpet work. The lease is a lease of the premises occupied by Whytock & Co. as a carpet work, with right to use the water for that purpose; and there is a provision "declaring always that they shall not be at liberty to sublet the premises after described for any purpose tending to occasion any nuisance to the neighbour-hood beyond what the present work may be supposed to do."

The LORD JUSTICE-CLERK—That is the work of Whytock?

The DEAN OF FACULTY—Yes. Now, we have had Whytock's work described; and it appears to me that with the right to use the water of the Esk that clearly gives the right to use it for the purposes of the carpet work.

The LORD JUSTICE-CLERK—Who spoke to the carpet work?

Mr CLARK—Messrs Sutherland & Meikle traced the history of the work from 1834 to 1856.

The LORD JUSTICE-CLERK—I am afraid I cannot give that direction.

The DEAN OF FACULTY—We also ask your Lordship to tell the jury that none of the pursuers is entitled to a verdict against any one of the defenders unless the jury shall be of opinion in point of fact that the matter discharged by such defender into the river pollutes the river within the property of such pursuer to his nuisance.

The LORD JUSTICE-CLERK—That is inconsistent with the law which I gave them. I think you hardly require that if you except to the direction I gave.

The DEAN OF FACULTY—We ask that.

The LORD JUSTICE-CLERK—Then I do not give that direction.

The jury, by a majority of nine to three, found for the pursuers the Duke of Buccleuch and Lord Melville on all the issues, and for the pursuer Sir J. W. Drummond on the first, second, third, fourth, and seventh issues.

Counsel for Pursuers—The Lord Advocate, the Solicitor-General, Mr Shand, and Mr Johnstone. Agents—J. & H. G. Gibson, W.S.

Counsel for Defenders—The Dean of Faculty, Mr Young, Mr Clark, Mr Gifford, Mr Moncrieff, and Mr Asher. Agents—White-Millar & Robson, S.S.C.

## HOUSE OF LORDS.

Friday, July 13.

WHITE AND ANOTHER *v.* EARL OF MORTON'S TRUSTEES.

(In Court of Session, 24 D. 116 and 1054.)

*Process—Jury Trial—Application of Verdict—Appeal to House of Lords—Competency.* Issues were adjusted to try whether there existed two rights of way "by or near" a certain line, and the defender put in a minute consenting to a verdict for the pursuers, and another consenting to judgment in the same way as if a verdict had been found for the pursuers. The Court, when asked to apply the verdict, remitted to a surveyor to lay off and mark on a plan the footpaths so consented to, so as to make them least burdensome to the defender. This was done with the acquies-

cence of the parties, and three other interlocutors were afterwards pronounced carrying out this course of proceeding. The three interlocutors being appealed, Held (1) that the Court of Session had acted *ultra vires* in pronouncing the first interlocutor; and (2) that as the case had been so taken out of the *curius curie* by consent of parties, the appeal against the others could not be entertained.

*Process—Abandonment of Action.* Held (aff. C. of S.) that a minute of abandonment under 6 Geo. IV., c. 120—(1) is incompetent before the record is closed; (2) must include the whole action and not a part of it only; and (3) must be perfected by leave being granted to abandon after payment of expenses.

*Process—Implied Abandonment of Action in Part.* Pursuers of an action of right of way claimed in the record as closed a right to five roads, but lodged issues as to only two, and obtained a verdict in their favour. Held that the defender was entitled to absolvitor in regard to the other three, but observed that this absolvitor would not found a plea of *res judicata* against the general public, as there never had been any adjudication of the question.

*Expenses.* An appeal to the House of Lords dismissed without costs because the parties had been "led astray" by the Court below.

This was an appeal against six interlocutors of the Second Division of the Court of Session in an action originally raised on 29th April 1846, at the instance of James Morris Anderson, Robert Hay, James White, Robert Campbell, and John Robertson, all inhabitants of Aberdeen, against the late Earl of Morton. James White and Robert Campbell were now the only appellants, the other pursuers being dead, and the respondents were the Duke of Buccleuch and others, Lord Morton's trustees.

The summons concluded for a declarator of right of way in regard to five different roads betwixt Aberdour and Burntisland. Defences were lodged for Lord Morton, and thereafter the parties made up a record by condescendence and answers, which were revised. The process thereafter lay over from 1847 to 1851, when it was awakened, and on 4th March 1851 parties were appointed to adjust their respective papers. On 4th March 1851 the following minute was lodged for the pursuers:—

"Deas, for the pursuers, stated that he abandoned the cause, in so far as it related to the rights of way or footpaths described in articles 2d, 3d, and 5th of the revised condescendence, reserving the pursuers' right to bring a new action relative to the roads and portions of the cause thus abandoned, in terms of the statute 6 Geo. IV., c. 120, and relative Act of Sederunt, without prejudice to the pursuers' right to proceed with the said cause as regarded the whole other matters and roads involved therein as accords."

On this minute being lodged, the Lord Ordinary appointed the defender "to give in an account of expenses relative to the part of the cause now abandoned," and remitted it to the auditor to tax and report. No account of these expenses was however lodged by the defender.

The action then proceeded, and parties having adjusted their respective papers, the record was closed on 31st May 1851. The closed record contained averments in regard to all the rights of way originally claimed.

Issues were thereafter ordered and lodged, and on 18th July 1854 were approved of as adjusted by