LAW REPORT, Aug. 16.

HIGH COURT OF JUSTICE.

KING'S BENCH DIVISION.

(Before the LORD CHIEF JUSTICE, *without a Jury, by consent.)*

THE SALT UNION (LIMITED) *v.* BRUNNER, MOND, AND CO. (LIMITED).

The following is the judgment of the Lord Chief Justice in this action, the arguments in which were reported in *The Times* of July 28, and the result of which was stated in *The Times* of August 11. The plaintiffs asked for an injunction to restrain the defendants and their agents from abstracting salt and brine from land, the property of the plaintiffs, and from pumping in such a manner as to cause subsidence of the plaintiffs' land, also for damages for having done the acts aforesaid. The defendants denied that they had pumped brine from the plaintiffs' mines, or that they had let down the surface of the plaintiffs' land in so doing, and further that they were entitled to pump brine in the manner complained of by virtue of an indenture dated September 6, 1888, made between them and John Thompson, the plaintiffs' predecessor in title, from whom the plaintiffs purchased, subject to such right in the defendants.

Mr. Balfour Browne, K.C., Mr. Freeman, K.C., Mr. Eldon Bankes, K.C., Mr. R. V. Bankes, and Mr. V. Balfour Browne appeared for the plaintiffs; Sir Robert Finlay, K.C., Mr. Upjohn, K.C., Mr. A. J. Walter, and Mr. S. A. T. Rowlatt for the defendants.

THE LORD CHIEF JUSTICE.—This is an action brought by the Salt Union (Limited) against Messrs. Brunner, Mond, and Co. (Limited). The plaintiffs claim three things—first, an injunction to restrain the defendants from continuing to pump salt brine from a shaft known as Penny's-lane, near Northwich, in Cheshire; secondly, damages for the abstraction, since 1893, of salt brine, or salt rock, alleged to belong to the plaintiffs; thirdly, damages for injuries caused to houses and (or) property belonging to the plaintiffs by the subsidence of the surface in the district to the south of Northwich, due, as the plaintiffs allege, to the pumping of brine by the defendants at the Penny's-lane shaft. The questions of law raised in the case are of very great importance and difficulty, and they are, as far as I know, not covered by any direct authority, although the plaintiffs rely upon principles which have been applied in numerous other cases of support and the abstraction of soil and underground material, and the defendants upon the reasoning of certain decisions in cases of mining and the rights to underground waters. Before, however, dealing with the questions of law, it will be necessary to state the facts in some somewhat fully, and to state also my finding upon such issues of fact as were in dispute before me. As to a great many of the material facts there was no substantial dispute, although more than once in the course of the case I was informed that it was necessary to repeat evidence even of admitted matters, because, as might be expected, it was intended to take the opinion of the Court of Appeal and of the House of Lords on the matter. I feel it my duty, therefore, to state the facts as plainly and clearly as I can, and to indicate in so far as there is any dispute my view of the evidence. The salt and brine pumping have gone on in many parts of Cheshire for many generations, probably centuries, but in the district round Northwich district consists of two beds; the top bed is found at a distance varying over the area in question, of from about 47ft. to about 120ft. below Ordnance datum. The upper bed of rock salt is of a thickness of about 50ft. (varying from 70ft. to 30ft.). The base of the top bed is substantially horizontal. Below the top bed is a thickness of 30ft. of marl and marlstone. Below this is the lower bed, which is about the same thickness as the upper —namely, 60ft. In this district prior to 1833 salt was obtained in two ways, one by sinking a shaft down to the top of the upper bed, and thereby, if the workmen were not found to be wet, pumping up what was called "natural or rockhead brine," or, in other words, water impregnated with dissolved salt rock obtained from the top of the upper bed; and, secondly, by dry mining in the ordinary way—that is, by sinking shafts to the upper or lower bed, as the case may be, and the digging out of mines in which the salt rock was hewn, and sent up in tubs to the surface for subsequent treatment. For the support of the roofs of the mines in the case of dry mining pillars of salt from seven to ten yards square were left at a distance of 20 to 25 yards apart. During the latter half of the last century a third method of mining had become common in the district—namely, pumping brine from mines which had become inundated by collapse of the roof and subsidences of ground and the access to the inundated salt rock therein of fresh water. The main facts respecting the district as to which the question arises can be best described by reference to the plan No. 2 put in by the plaintiffs, and the Ordnance map put in by the defendants. Immediately to the eastward of the main street in Northwich, known as Witton-street, is the shaft belonging to the defendants, known as "Penny's-lane." From 1859 onwards, at different dates, owing to the increase of working in the dry mines, and to other causes which need not be considered, but which are very important in their results, the roof of some of the dry mines in the district collapsed, some in the upper and some in the lower beds, the mines themselves became flooded, and large areas of subsidence appeared, which were formed upon the surface due to subsidence. From these areas fresh water found its way down to the upper and lower beds and became impregnated with salt, and was then pumped up as brine—that is, water saturated with salt—through shafts, either old or new, which were sunk down to the inundated mines. The mines belonging to the plaintiffs, as to which their claim in this action arises, were nine in number, situated, speaking generally, to the north of the Penny's-lane shaft of the defendants, and were called Marshall's No. 1, Wadesdell's, Wadesdell's Bartons, Thompson's, Dunkirk, Marshall's No. 2, Plattshill, Austin's Old Mine, and Tunkinson's. It was proved by the plaintiffs, and although disputed by the defendants, that all these nine mines were connected together by underground passages. Some of these passages were originally made for the purpose of ventilation when the mines were worked as dry mines. Two old witnesses were called before me, who, I think, proved the existence of these communications having been through some or other of the mines themselves, when they were dry, and as I have already said, though not originally admitted, the existence of these passages or means of communication was ultimately admitted by Sir Robert Finlay, the leading counsel for the defendants. Salt brine pumped by the defendants from the plaintiffs' at Dunkirk shaft, a distance of some 400 yards to the north-east of the shaft of Penny's-lane. These inundated mines and the Penny's-lane shaft were known and spoken of in the case as the Dunkirk mines. To the north and east of Plattshill mine, which is the northernmost of the nine mines, is another series of inundated mines called the Witton mines, belonging also to the plaintiffs, of which the principal are known as the Albert and Nelson, situated a little to the north-east of an area of water called Neumann's Flashes, as to whether or not there existed in the year 1888, or at any time subsequently, an underground communication between Plattshill mine and Hadfield's mine, which lies immediately adjoins it on the north-east, was a matter of controversy. It was strongly maintained by the plaintiffs that no such connexion existed, and equally strongly urged by the defendants that to a greater or lesser extent there was a connexion. As to the view I take of this case, the point becomes immaterial, but inasmuch as it formed a matter of controversy, and may be considered material by others who may have to deal with the case, I shall refer to it again later. At present I am merely stating generally the admitted facts which are material. The Witton mines, including the Hadfield mine, belong also to the plaintiffs, so that from one point of view the existence of this underground passage becomes immaterial, because if the plaintiffs were entitled to claim an injunction or have a right of action in respect of the abstraction of salt rock or brine from the eight or nine mines in question, the fact that some more of the plaintiffs' brine from the Marston mines was being pumped up at Penny's-lane shaft would be immaterial. The shafts marked with black colour on plan No. 5 are shafts which have been or are still being used for obtaining rockhead or natural brine: this, as I have already described, is brine obtained from the top of the upper bed, and possibly in a few cases from the top of the lower bed by the percolation of water through the surface dissolving salt rock upon the top of the beds. There was no dispute that in the greater number of those instances brine thus produced is obtained from the top of the upper bed. There was some question whether in a few cases, as for instance, Nos. 1, 2, 3, 4, 26, 20, 25, and 26, the brine was not being obtained from the top of the lower bed. The question is mainly important in connexion with the question of subsidence. As I have already said, salt mining in years gone by had caused considerable subsidence in the surface in which fresh water collected. Plan No. 1, put in by the plaintiffs, shows the evidence of these pools or collections of water in the year 1880, the enormous quantities of brine extracted from this district since 1880 had caused a great extension of these water areas, both as to superficial extent and to depth. Plan No. 2 shows the water areas as they existed in December, 1905. "Ashton's Flash," as the largest area of water was called, had greatly increased in area and extended across and permanently overflowed the bed marked as the Dunkirk Bed, and notwithstanding that several hundreds of thousands of tons of material had been tipped in, was of very great depth, holding in consequence a very large volume of water. Plattshill mine was a dry mine up till December, 1880. About the year 1870 a small boring of about an inch diameter and some 18ft. in length, extending from a short tunnel, was put through, at about the point A upon the plan marked by me in red ink, from Plattshill to the Hadfield mine. Had Hadfield mine was at that time flooded, and when the aperture was made, a small stream of salt brine came through in considerable force. The borehole was then plugged with a wooden plug some 8ft. in length, expanded by a nail, and it was suggested by the defendants that in all probability the aperture made by this plug had become enlarged by the action of water, dissolving the salt rock round the plug, and that in this way a direct means of communication between Hadfield and Plattshill mine, and from thence to the other eight mines of the Dunkirk system had been established. In September, 1888, the defendants, Messrs. Brunner, Mond, and Co., had acquired from John Thompson, the owner of the Penny's-lane shaft, that shaft, and a small piece of salt rock shown on Plans Nos. 2 and 5, and the section on the sketch marked "Section A." The deed of conveyance was dated September 6, 1888, whereby Thompson conveyed to the plaintiffs—"Firstly, all that plot of land situate in the county of Chester, having a frontage to Station-road (formerly Witton-street), within the local board district of Northwich aforesaid, together with the rock, salt mines, storehouses, engine-houses, smith's shop, several dwelling-houses, and other buildings thereon, the particulars whereof are set forth in the first schedule hereunder written and the dimensions and boundaries whereof are shown in the plan annexed hereto, which is to be taken as part of these presents, and which hereditaments are edged with blue colour on the said plan, and contain a total admeasurement of 5,790 yards, or thereabouts, be the same more or less. Together with the rents reserved by the several indentures of lease specified in the said schedule hereto, and the benefit of the lessee's covenants therein contained. Secondly, all the beds or strata of rock salt lying under the several plots of land situate in Witton aforesaid, adjoining the premises firstly hereinbefore described, the particulars of which adjoining hereditaments are set forth in the second schedule to these presents, and the boundaries thereof are also delineated in the plan annexed hereto, and are coloured red, with full and free liberty (except as to the portions thereof lying within 15 yards westward of the tunnel next hereinafter mentioned) to get and take away the same, or utilise the same for any purpose, and therefor to lay down tramways, brine pipes, and roadways in, through, or under the said beds, together also with full and free liberty and authority to bore, sink, or driftway and borehole made by the said John Thompson, his heirs, from the said rock salt mine firstly hereinbefore described, or any additional mine, driftway, or boreholes which may hereafter be constructed by the said company, its successors or assigns, and which it is hereby authorized and empowered to construct (except within the aforesaid 15 yards—measurement westward), for the purpose of obtaining and pumping brine from the flooded mine belonging to the said John Thompson, north of the said hereditaments hereby sanved. Thirdly, all and every full and free liberty for the said company, its successors and assigns, to lay, take up, relay, and repair in or upon the land of the said John Thompson, lying and being between the hereditaments firstly hereinbefore described, and the northern extremity of the land of the said John Thompson, abutting on the weir of the Weaver Brook flash in any such direction, and to such point or points as they may think proper or expedient (but paying reasonable compensation from time to time for all injury to the said land, or any erections thereon thereby occasioned), a line or lines of brine pipes for the conveyance of brine from the said mine shaft or pumping station." The deed also contains the following clause:—"And this indenture further witnesseth that in further pursuance of the said agreement, and in consideration of the premises, and also in consideration of the covenants on the part of the said John Thompson next hereinafter contained, the said company hereby covenants with the said John Thompson, his heirs and assigns, and to the intent that the burden of this covenant shall run with the said salt mine, and the tunnels and shafts thereof for the time being, and the said company, its successors and assigns will, if so required by the said John Thompson, his heirs or assigns, so long as the same can by any reasonable means be obtained through and by means of the said mine, or the tunnels and shafts thereof, to let to the said John Thompson, his heirs and assigns, at a point on the lands and hereditaments comprised in the first schedule hereto or at a point in the aforesaid line or lines of brine pipes if and when laid to be selected by the said John Thompson, his heirs or assigns, thence to be conveyed by the said John Thompson, his heirs or assigns, in pipes to be provided by him or them for use in any of the lands situate in Witton aforesaid at the time of the execution of these presents belonging to or vested in the said John Thompson in fee simple for his own use and benefit, and not as trustee, such quantity of brine not exceeding 15,000,000 gallons in any one year as may be required for the manufacture by the said John Thompson, his heirs and assigns, of white salt on such lands or some of them of the said John Thompson as aforesaid, it being agreed between the parties hereto that such year shall be deemed to commence from October 1." The flooded mine belonging to John Thompson north of the hereditaments in question was that part of Marshall's mine which lay south of Wade Brook and was Thompson's freehold. This part of Marshall's mine had been worked from the part of Marshall's mine north of Wade Brook, so that there was underground connexion, through which brine could pass from the mine north of Wade Brook to the mine south of Wade Brook. There was at first some controversy whether the working from the part of Marshall's mine north of Wade Brook had been a trespass or by permission under some lease, but the question is, in my opinion, immaterial. The existence of this connexion between Marshall's mine north of Wade Brook and the mine south of Wade Brook was known long before 1888. It had in that year become impossible to prevent brine getting from one part of the mine to the other if pumping took place from any shaft which was connected with the mines so as to withdraw the brine and disturb the equilibrium or balance of brine or water pressure. In fact from the time of their inundation all the nine Dunkirk mines formed an underground reservoir of brine or water which got in from the surface. On December 3, 1888, the defendants took from the same John Thompson a conveyance of certain mines which lay to the north-west of the land conveyed to the defendants. The actual terms of that deed are not material, but it gave the plaintiff company notice of the conveyance to the defendants of September 6, 1888. On October 3, 1900, the plaintiffs purchased from John Thompson all the minerals in other mines to the north-west of Penny's-lane, and among them the minerals owned by Thompson south of Wade Brook, or, in other words, the minerals contained in what was described as Thompson's inundated mine in the deed of September, 1888. This deed recited the grant to the defendants of September 6, 1888, and particularly that part of it which gave the defendants full and free liberty to use the borehole for the purpose of obtaining and pumping brine from Thompson's flooded mine. Great reliance was placed by the defendants upon the covenant in the deed of September, 1880, by them to supply, if required, 15,000,000 gallons of brine per annum, and the fact that the plaintiffs in their conveyance from Thompson of his inundated mine south of Wade Brook, and of all the salt rock therein, took an assignment of the benefit of the covenant. I am unable to see that it affords no conclusive an argument as the defendants' counsel urged. Thompson could not give any rights which he did not possess or any rights over other people's property. The importance, to my mind, is that it recognizes, as between Thompson and the defendants, the true position of facts—namely, that by putting through the bore to Thompson's inundated mines and pumping thereby would, in fact, tap the underground reservoir of brine basin. Beyond this it does not seem to me to affect directly the question before me; and the plaintiffs in purchasing from Thompson naturally bought all he had to sell, including the right to call on the defendants for the quantity of brine specified in the covenant. It will be convenient here to notice an argument addressed to me on behalf of the defendants founded upon the correspondence which passed between the plaintiffs and the defendants subsequent to the year 1888. It was contended that this correspondence amounted to a recognition by the defendants had a right to pump salt brine, as they were pumping, from Penny's-lane shaft. I think this is putting it too high. In my opinion nothing occurred to alter the rights of the parties. The most that can be said is that the expressions in that correspondence recognized the existing state of facts, which was in my opinion well known to every one—namely, that both the defendants' shafts at Penny's-lane and the plaintiffs' shafts at Dunkirk were pumping brine from the same underground source. The plaintiffs at no other dates subsequent to September 8, 1888—the material dates are not material—took conveyance of the eight other mines in the Dunkirk group already referred to. From the year 1888 onwards the defendants have continued to extract from their Penny's-lane shaft brine to an enormous extent; the quantity in the 13 years 1893 to 1905 amounted to upwards of 2,605 million gallons, representing 2,791,000 tons of rock salt. The rock contained in the yellow patch conveyed to the defendants by the deed of September, 1888, extended over a superficial area of 370 square yards, which, taking the average depth of both beds, would contain 28,475 tons of rock salt, and produce a little over 24,000,000 gallons of brine. It is needless, therefore, to state that only an infinitesimal part of the brine actually raised by the defendants could possibly have come from the rock salt included in the yellow patch, even assuming that rock to have been dissolved. The total quantity of rock in Thompson's inundated mine—that is, the portion of Marshall's mine south of Wade Brook, including the 370 yards—would have been 238,800 cubic yards, equivalent to 429,969 tons of rock salt, producing if all dissolved about 419,000,000 gallons. But it was admitted by the defendants, by their answers to interrogatories, that no substantial part of the brine pumped by the defendants from the Penny's-lane shaft was produced from the salt rock, either in the yellow or in Thompson's inundated mine, south of Wade Brook. That was abundantly established for reasons which can be very briefly stated. Brine—that is, water saturated with rock salt—has no further operation or effect upon rock salt, so that the passage of brine through orifices and apertures in the salt rock does not tend to enlarge those apertures, and it was not disputed by the defendants that not a very large portion and I find as a fact substantially the whole of the brine extracted from Penny's-lane shaft—came from and was produced from salt rock in areas in which the salt rock did not belong to the defendants. The evidence satisfied me, and in fact it was practically admitted by the defendants, that the barrier of rock salt through which the boreholes were put, under the licence contained in the deed of September 6, 1888, was of the same thickness now as then. Any water which found its way into the nine inundated mines would become fully saturated brine in the vast reached Marshall's mine, so that, as I have said, it is lawful or unlawful, the defendants were getting the brine produced from strata of salt rock which did not belong to them. It was, however, contended by the defendants that a very considerable, though unknown, portion of the brine pumped through Penny's-lane shaft came from beds of salt rock which did not belong to the plaintiffs. It was alleged that subsidences occurred at various places in Northwich, that they occurred and had been extensively along the railway from Northwich to Billinge-green, that they had also occurred to an increased extent to the west and north of the Dunkirk area. It was alleged, as I have already stated, that the Marston mines, and probably other mines to the north and west, contained brine, or allowed access of water which would become brine in underground basins for a very great distance, and in one case could tell where brine pumped up at any shaft was in fact produced. It was urged in addition by the defendants that a considerable portion of the brine pumped from Penny's-lane shaft had been pumped at Penny's-lane was rockhead brine formed by the dissolution of salt rock on the top of the upper bed, and possibly to some extent on the top of the lower bed and not mine brine, and that this rockhead brine found its way to the defendants' shaft and to other shafts in the district by means of what were called "brine runs," which were at a considerable depth below the surface, and could only be traced from time to time by the subsidences which they caused. I have no doubt that natural or rockhead brine as distinguished from mine brine does travel underground in brine runs long distances, and may get into many of the inundated mines in the Dunkirk, Marston, and other neighbouring districts. This fact, however, does not dispose of the plaintiffs' claim, because even assuming that some portion of the brine (and it may be a considerable portion) pumped at Penny's-lane shaft comes from the areas under Northwich, or is produced from rock salt not the property of the plaintiffs, the question still remains, "Have the defendants pumped brine produced in the plaintiffs' mines or formed by the dissolution of rock salt which belongs to the plaintiffs?" As to this I have no doubt, and I find as a fact that a very large portion, though what portion no one can tell, of the brine pumped at Penny's-lane shaft was in fact produced by the dissolution of salt rock in the nine mines of the plaintiffs in the Dunkirk district. This can, I think, be proved almost to demonstration. In the first place there is the enormous increase of Ashton's flashes since the year 1893. Then again the subsidences which have occurred are to a very large extent vertically above the nine mines. It was proved that 2,791,280 tons of rock salt extracted by the defendants in their brine would have taken a thickness of rock salt of six yards over an area of 83 acres. It would, in my opinion, be wrong to attribute the whole of the rock salt this obtained to the mines the property of the plaintiffs. Upon the other hand, for the reasons which I have already stated, I have no doubt, and find as a fact upon the evidence, that the defendants have by pumping brine therefrom produced, or caused, a very large quantity of rock salt from the beds of salt rock belonging to the plaintiffs; whether, as I have said, that quantity can ever be ascertained is necessarily a matter of guess. If further that if pumping is continued at Penny's-lane they must continue to dissolve more of the plaintiffs' rock and to abstract the salt therefrom in the brine pumped up at the Penny's-lane shaft. In this view it is, perhaps, unnecessary for me to notice further the question of the possible connexion between Plattshill and Hadfield mines. Up till a late period of the evidence I thought that the diagram of the levels of brine in the shafts at Marston, Dunkirk and Penny's-lane, which had been put in evidence by the defendants themselves, was sufficient to establish that there was no substantial connexion between the Marston and Dunkirk mines—in other words, between Plattshill and Marston. Subsequently, however, I was occupied in putting questions to witnesses based on this diagram. Unfortunately all this time was wasted, for it turned out that the diagram was inaccurate, but at the end of the defendants' case a diagram of their levels, corrected to by both sides, was put in for the period from April 1, 1904, to March 31, 1905, a period of two years. That diagram makes no doubt whether absolute reliance can be placed on any argument based on the levels of the brine in the various shafts. For a period of six months, from August 1, 1904, to about the end of September, a coincidence of the level of Penny's-lane and Dunkirk, and the uniform difference of about 15ft. between the level of the brine in the Marston mines, Penny's-lane shafts, or either of them, and the level in the Marston shaft would seem to indicate that there could only be a very slight connexion between the Marston mines on the one hand and Dunkirk or Penny's-lane on the other. But it must be remembered that these underground connexions are not free and open passages. They are liable to temporary obstructions by the subsidences which occur above, they are liable to enlargement assuming brine only or only partially saturated water to get down for a given period, and, speaking generally, dealing with an underground connexion between shaft and shaft and mine and mine, the passage depend upon the actual condition of the rock from time to time where more or less movement is constantly going on, and the parts of the subsoil are liable to be dissolved and the very act of dissolution bringing about a choking or diminution. In my opinion it is unsafe to place too much reliance upon the difference of level, and this is the more remarkable because, although it was agreed by both sides that Dunkirk and Penny's-lane were practically drawing from the same underground basin after the end of September, 1904, the line of level of the brine in Dunkirk leave the line of level of Penny's-lane and coincides much more nearly with that of Marston, and this notwithstanding that pumping was going on the whole time at Penny's-lane. For the reasons I have already stated, the connexion between the Marston salt mines and the Dunkirk salt mines may be disregarded as immaterial because the Marston mines also belong to the plaintiffs; but the question, or possible connexion, between these two areas is not without its bearing upon the point urged by the defendants, that the condition of the mines underground is constantly changing owing to pumping in various districts, and that one cannot rely with absolute safety upon an inference drawn from pumping in one area and subsidence in another. Personally, I do not attach much importance to the possibility of a connexion having been formed through the very small borehole made in the year 1871 between Plattshill and Hadfield. I think there would be brine on both sides, and that the borehole is probably in the same condition. Upon the other hand, the diagram does, in my opinion, support the view that no connexion has been set up between the Marston and Dunkirk area which did not exist at the date of the commencement of the period shown by the diagram. Whether such connexion as to Plattshill mine is a matter of comparative indifference. I am well aware how defective any reasoning from a diagram of this kind must be, and I express myself diffidently, but I understand those more experienced than I will be able to show that my view is not well founded, but I give it because this matter formed the subject of considerable discussion at the trial, and, if my conclusion is right, it does tend to support the view that the underground connexion between these various mines may change from time to time in the way in which no one can account for, but in my opinion it would be unsafe to base any definite conclusions upon the level at which the brine stands in the various shafts without a great deal more information and investigation. The only other branch of evidence relied upon was with reference to the question whether any considerable portion of the brine pumped at Penny's-lane was Penny's-lane. Upon this point the plaintiffs put in an affidavit of Mr. Davies, which purported to show in the first instance that the brine pumped at Penny's-lane and Dunkirk was different from that pumped at Marston. His argument was mainly based on the larger quantity of calcium chloride from the Dunkirk and Penny's-lane brine as compared with the Marston brine. This point, as I have already indicated, has become immaterial, but I think that the chemical composition of brine from different places, other considerations, a more serious point is that the rockhead brine at Marston contains 113.39 grains per gallon of sulphate of magnesium, whereas the brine pumped at Penny's-lane and Dunkirk contains, according to analysis, no sulphate of magnesium at all; and it is also to be noted, so far as the question of levels is concerned, that the level of the rockhead brine shown in the same diagram appears to be almost constant, at any rate it had no relation to the level of the brine at Penny's-lane, and was unaffected by the pumping at any of the shafts. I am therefore, not satisfied that any substantial quantity of rockhead brine is pumped up at Penny's-lane. So far as I can form an opinion, I find as a fact that the brine pumped at Penny's-lane is substantially mine brine, of which, as I have already said, a considerable portion is formed by dissolution of the salt rock in the nine possibly more, mines belonging to the plaintiffs. I find the facts relating to the plaintiffs' claim for damages for injury by subsidence, and in this connexion I have to refer to a point upon which evidence was given by the defendants, that is, the passing of the Brine Pumping Compensation Act, 1891. Subsidence from salt mining and brine pumping have from time to time occurred in the neighbourhood of Northwich, including all the district referred to in the evidence given in this action, during the whole of the last century, and have been the subject of more than one Parliamentary investigation and inquiry. Referring to this particular district, the collapse of the Ashton old mine occurred in the year 1838, and there have been from time to time inrushes of water and brine into various workings and mines. A map was put in before me called the "shading map," and which at the time of the geological survey of 1888, and evidence was given by the defendants, which I find to be substantially accurate, that since the year 1880 the area had very considerably increased, so that a much larger area is now subject to subsidence than at the time of that survey. Evidence was also given of a number of subsidences in Northwich, and the area to the north of Northwich, the area to the north of Winsham and the neighbourhood of Billinge-green, and some, though less considerable, between Billinge-green and Penny's-lane or Northwich. A good deal of controversy was raised at the trial as to whether subsidences at and in the neighbourhood of Billinge-green had been due to brine pumping in the Northwich district or to brine pumping in Middlewich or some other district. Upon the evidence before me I do not think that subsidence can possibly be answered one way or the other, but from what occurred at Billinge-green on the occasion of the collapse of the Plattshill mine it is clear to my mind that underground waters, or underground brine, in the neighbourhood of Billinge-green may be affected by the workings in the Northwich district, and they are probably also affected by workings in the other districts. The defendants themselves pumped at Dunkirk during the eight years from 1883 to 1895 upwards of 160,000,000 tons of salt brine, some part of which was brought in pipes from the Marston shafts, and there was also considerable pumping at the Albert and Nelson shafts in the Marston district, also at Winsham and Middlewich and Wincham. Haythorne and Cottrill, for the defendants