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*Feb. 25-27.
*Oct. 27.

THE MONTREAL LIGHT, HEAT AND POWER COMPANY AND OTHERS (DEFENDANTS) ..... APPELLANTS;

AND

THE ATTORNEY-GENERAL OF THE PROVINCE OF QUEBEC (PLAINTIFF) ..... RESPONDENT.

ON APPEAL FROM THE COURT OF KING'S BENCH, APPEAL SIDE, PROVINCE OF QUEBEC.

River improvements—Precaution against danger to existing constructions—Alteration of natural conditions—Responsibility for damages—Vis major.

Where works constructed in a river so altered its natural conditions as to create a reservoir in which ice formed in larger quantities than it did prior to such works, and which, during the spring freshets after a severe winter, was driven with such force against the superstructure of a bridge as to partially demolish it, those who constructed the works are responsible for the damages so caused, notwithstanding that they had taken precautions for the protection of the bridge against like troubles, foreseen at the time of the construction of the works, and that the formation of ice in increased weight and thickness in the reservoir had resulted from natural climatic conditions during an unusually rigourous winter.

Judgment appealed from (Q.R. 16 K.B. 410) affirmed.

APPEAL and CROSS-APPEAL from the judgment of the Court of King's Bench, appeal side(1), which varied the judgment of the Superior Court, District of Montreal(2), and ordered the assessment of damages to be referred to experts for report.

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*PRESENT:—Sir Charles Fitzpatrick C.J. and Davies, Idington, Maclennan and Duff JJ.

(1) Q.R. 16 K.B. 410. (2) Q.R. 29 S.C. 356.

The action was to recover, from the appellants, damages occasioned to the Yule bridge, across the Richelieu River, at Chambly, Que., caused, as alleged, through the negligent and faulty construction of dams and other works in the bed of the stream by the appellants in order to secure more power for the purposes of their power house, situated in the vicinity of the bridge. At the trial, Loranger J. decided that the Province of Quebec was owner of the bridge, at the time of its destruction, during the spring freshets of 1904 and 1905, through ice from a reservoir created by the appellants in making the river improvements (and forming there in much greater quantities than there would have been in the natural condition of the stream), being carried with increased force against the structure of the bridge. The defendants, appellants, contended, among other things, that they had taken all necessary precautions which could have been foreseen against the happening of the accidents, by strengthening and raising the superstructure of the bridge, and that the causes which led to the disaster were owing to the natural climatic conditions which prevailed during an unusually rigourous winter season preceding the accidents complained of. The learned judge held that the action, as taken, would lie against the defendants, that their dams and works were the determining and only cause of the injuries to the bridge, and condemned them in the sum of $40,000 for the damages thus caused. The Court of King's Bench varied this judgment by ordering that the quantum of damages should be ascertained by a reference to experts and directed the mode in which those experts were to proceed in determining the amount of damages suffered.

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The appellants sought to have the judgment which decreed their liability set aside, and a cross-appeal was filed by the Attorney-General to have the decision of the trial judge restored.

The material circumstances of the case and the issues raised on the appeals are stated in the judgments now reported.

R. C. Smith K.C. and *G. H. Montgomery* for the appellants.

Wilfred Mercier K.C. for the respondent.

THE CHIEF JUSTICE concurred in the opinion stated by Davies J.

DAVIES J.—The substantial question argued before us and now to be determined on this appeal is the responsibility of the appellant companies for the destruction of the Yule bridge so called which spans the Richelieu river between the villages of Richelieu and Chambly-Canton and near where that river flows into the St. Lawrence.

There were many incidental points raised as to the ownership of the bridge by the Province of Quebec, and the right of the latter to recover damages for its destruction, but they were all practically disposed of in the respondents' favour during the argument excepting the question of damages, to which I will refer later.

The appeal was argued very fully at bar and very ably and I have had the advantage since then of reading the evidence called to our attention in the factums and at the oral argument. The result is that my im-

pression formed during the argument has been confirmed and that I am in favour of dismissing the appeal and confirming the judgment of the court of appeal substantially for the reasons given by the late Mr. Justice Bossé.

It seems to me, however, that one important fact, and one which I confess has greatly influenced me in reaching my conclusion, has been overlooked in that judgment and for this reason I desire to add a few explanatory notes of the facts relating to the conditions of the river and its bed before the construction of the dam complained of and those which existed after such construction and the operations connected with its construction had been completed. The bridge, the destruction of which is the subject of this action, had six spans of 157 feet each and one short span. It was built in the year 1845. The dam and the works incident to it the existence of which was alleged to have been the cause of the destruction of the bridge were begun to be built in 1896 and completed in 1897.

The Central Vermont Railway bridge was built higher up the river above the Yule bridge upon stone piers in 1874.

In 1898, a year after the construction of the dam, both bridges were raised in height by or at the instance and expense of the appellant company. The Yule bridge, 6 feet on the Richelieu side of the river and 4 feet on the Chambly side.

Mr. Macklin was the engineer who supervised and directed the construction of the dam and who remained in the employ of the Chambly Manufacturing Co., by whom the dam was originally built as such engineer until that company was merged in the appellant company, the Montreal Light and Power Co.

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He says—explaining the raising of these bridges after the construction of the dam—that there was an ice jam in 1898 which *endangered the safety of the bridge* and that

> the ice piled up and that was when I recommended that the bridge should be raised, because of that.

After explaining why on the score of expense he did not raise the bridge still higher he says:

> Nobody knew what the conditions of the river were at that time after the dam was built. We had to learn all that and my suggestion to raise it six feet was based upon what knowledge I obtained at that time.

Speaking broadly the river alike where the dam was built and at the site of the Yule bridge was about 1,000 feet wide, and the distance between the overflow dam and the Yule bridge was about 1,800 feet. Between the Yule bridge and the Central Vermont bridge, distance of about 900 feet the river became some 300 feet narrower and continued gradually to narrow until about 2,000 feet further up from the railway bridge it reached its narrowest point for some miles about 500 feet wide.

About 800 feet above this railway bridge there existed in the natural condition of the river a broad reef or ridge of rock rising high above the normal height of the river, though probably covered or almost so during the spring freshets and when the water of the river was at its greatest height. This reef or ridge of rock which began about twenty feet from the Chambly bank of the river, and was about 200 feet in width, ran about two-thirds of the way across the river.

As a part of the operations incidental to the construction of the dam and the formation of the huge still-water lake above it, the company deemed it desir-

able on Mr. Macklin's advice, in 1898 after the dam was constructed, to blast away the top of the reef or ledge to the depth of three or four feet so as to allow of the more easy flow of water there. It still, however, remained quite an appreciable height above the level of the bed of the stream, because when several years after the construction of the dam a part of the latter was carried away and the waters of the river in consequence resumed their natural level this ridge or reef though reduced in height three or four feet still stood out clearly visible above the natural height of the waters of the river.

From this ridge or reef down towards the mouth of the river, below where the dam was constructed, the bed of the river inclined very much, a fall variously estimated in that short distance of 15 or 18 feet, thus forming what is known as "rapids" or swift flowing water. The water here at ordinary times, as Willett, Macklin and other witnesses prove, would be about a foot or 18 inches in depth at ordinary times rising during the spring freshets to a depth of from three to four feet. About one and a half miles above the reef the foot of the rapids of St. Thérèse were reached and these rapids extended up the river for still another mile and a half.

The reef in question therefore lay between the St. Thérèse rapids and the lower rapids across which the dam and the two bridges had been built.

These lower rapids were of course all covered by the still-water lake formed by the construction of the dam which still-water lake or pond extended about one and a quarter miles or one and a half miles above the dam.

The ice which caused the trouble came down the

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river from the head of St. Thérèse rapids which extend over about $1\frac{1}{2}$ miles and the foot of which is distant about 3 or $3\frac{3}{4}$ miles from the dam. In years, therefore, when the rapids do not freeze over, and by common consent it is only very rarely and at long intervals that they do freeze, the only ice you have to take care of is that which forms from the foot of the rapids down.

Experience has shewn that this ice was not dangerous or destructive in the natural condition of the river. Twice before the construction of the dam did these rapids freeze over within the memory of living witnesses, namely, in 1868 and 1872, without, however, injuring the Yule bridge. Again, twice since the construction of the dam was the cold severe enough to freeze these rapids and that was in 1904, when the bridge was partly carried away, and in 1905, when it was further damaged.

Mr. Smith, for the appellant, contended that the construction of the dam and the operations connected with it had nothing to do with the destruction of the bridge, which resulted from "ice shoves" entirely unconnected with the company's obstructions in and to the river and would have produced the same results inevitably had these works not been constructed.

He proved from eye witnesses that the ice in the rapids broke up and jammed at Papineau Point on the 27th March; that on the 28th the blockade at Papineau Point gave way and moved down stream until it was stopped by a small island lying in mid-stream; that on the 29th this blockade again gave way and carried the ice in a great heap down to Arbec's Point, where the river contracted to a width of about 500 feet, and that on the 31st this blockade which he con-

tended was still above the back water of the dam gave way and, to quote from the appellants' own factum,

> some of the ice came down as far as the railway bridge where it lodged against the timbers, but *the greatest part of it jammed upon the reef opposite the lighting station*, which, it will be remembered, is about 800 feet above the railway bridge. It will be noticed that no jam whatever took place at the place where the still-water pond runs out which would be almost half way between the lighting station (opposite thereof) and Arbec's.

Further on the factum says:

> On the morning of April 1st the blockade at the reef opposite the lighting station gave way about 7.15 a.m. and came down against the railway bridge which it carried away. It then adopted a wedge formation and directed itself towards the Richelieu side where it carried away the second pier of the Yule bridge from the Richelieu shore.

Mr. Smith, alike in his factum and in his oral argument, threw over the suggestions and opinions of his expert, Mr. Wilson, that it was the changed condition of the river arising from the construction of the railway bridge which caused the damage to the Yule bridge. In my judgment he was well advised in doing so, as it was clearly proved to have been the ice itself and not the debris of the railway bridge which carried away the second pier of the Yule bridge and that this ice notwithstanding the comparatively narrow spans of the railway bridge rushed with irresistible force against and carried away the pier of the Yule bridge. Mr. Smith preferred to rest his case upon his main contention that the ice was formed to an abnormal thickness in the rapids which froze almost solid and on its breaking up in the spring was carried by an irresistible natural force arising from the several blockades damming back the water of the river, until it had force enough to carry everything before it. Now it will be seen that notwithstanding

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the fact that the still water of the dam went up from 1,200 to 1,500 feet at least beyond the ledge of rock at the lighting station and was many feet deep on that ledge, the top of which had been blasted away to the depth of three or four feet, still that the ledge reduced in size and covered with the still water had power to maintain the blockade there from about mid-day on 31st March till about seven o'clock on the 1st April.

It seemed to me very plain when these facts came out at the argument that if the natural conditions of the river had been retained the ledge of rock extending two-thirds across the river, and about 200 feet wide, would have offered an effective barrier to the further descent of the ice bridge and that the channel of the river which ran around the Richelieu end of the ledge and was there of a width of about 150 feet, would have presented a natural and sufficient outlet for the flood of water carrying down the ice and for at least a third or fourth part of the ice itself without such ice or water damaging either of the bridges.

I pressed the point several times during the argument upon Mr. Smith, but his only answer was that the removal of the upper part of this reef or rock was not charged in the statement of claim as a specific fault on the part of the company.

But it appeared to me that all the operations connected with the construction of the dam and the formation of the still-water pond and the changes thereby made in the natural formation and conditions of the river were what was charged as the fault of the companies, appellants, and that these all and prominently amongst them the cutting down of this reef or rock were the issues which were thoroughly and

exhaustively threshed out at the trial. Perhaps I cannot state Mr. Smith's position better with respect to this ledge or rock than he himself put it in his factum. He says:

> So far from the works of the company having made it more difficult for the ice to get down, they made it easier inasmuch as they offered a large volume of water for its passage. Again, it will be remembered that the last blockade took place on the reef opposite the lighting station. This reef formerly stood right out of the water, but it had been considerably lowered by the company with the object of preventing jams. Had it therefore been in its original condition, the chances of a jam must have been infinitely greater.

The passage for which the works of the company made it easier for a "larger volume of water" to pass also made it easier for a larger mass of ice to rush down with the larger volume of water and so cause the damage complained of. When this reef "stood right out of the water" and before "it had been considerably lowered by the company with the object of preventing jams," the average normal depth of water from this reef down under the two bridges to Willett's mills below the dam was about 18 inches to two feet, and during the spring freshets as much as three or four feet. This ice which came down in jams from time to time would naturally be effectually stopped in great part by this ledge or reef standing right up out of the water and extending for two-thirds of the distance across the river. The water would naturally swirl and eddy around the side of this rock and rush around its end down the channel it had made for itself, carrying with it portions of the ice, but not such enormous quantities as would render the condition of the bridge precarious.

I am confirmed in this opinion which the facts would naturally suggest by the positive and clear testimony of Mr. Willett, the Rev. Father Lesage

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and other witnesses as to the actual natural conditions of the river before and at the time of the construction of the dam, and of that of Civil Engineer Macklin, who superintended and directed all the operations connected with the building of the dam, the necessary excavations and the damming back of the water.

Mr. Willett from his long and active life spent on the banks of the river at Chambly-Canton, his occupation as owning two or three mills there, and the position he held for some years as president of the Chambly Manufacturing Co., by which the dam was built, seems to me to have been a man above most others qualified to give most valuable evidence towards the solution of the questions before the court. He seems from his evidence to be quite impartial and to desire to state only those things which he knew to be true. He spoke with reference to the severe winter of 1868, when all the rapids were frozen solid, conditions similar to those of 1904, and shewed that when the spring thaws came and the ice began to come down the river rapids while great quantities of ice came down and made ultimately a severe jam for a few hours away below his mill and below where the present overflow dam is (that is below the rapid extending from the reef above the Yule bridge to Willett's mills below that bridge), there never was any damage done to the bridge nor does it seem at any time to have been in jeopardy. Amongst other statements of fact which he mentions, and after stating that professional opinions regarding the action of ice were not always borne out by his experience of facts he refers expressly to this reef or ridge as follows:

Q.—Now with regard to this bank of rock just above the Central Vermont Railway bridge, previous to the building of the dam, what

has been the habit of the ice as to blocking and piling up on this rock? A.—I cannot say that the ice ever piled up on it. The ice has taken out a channel along this rock and there was no piling up of the ice there. It naturally took level—this rock formed a kind of eddy, and the ice used to take out in that section out as far as the channel on the opposite side, but there was a channel with the exception of when the river was taken all the way up, there was always a channel at the end of those rocks.

Q.—It is a bed of hard rock—*banc rouge?* A.—Yes.

Q.—Now this bed of *banc rouge* extends, how far across the river? A.—About two-thirds of the way across, I think.

Q.—So that it constitutes a natural obstruction in the river to the extent of two-thirds? A.—Yes, it did; they have taken it away, you know.

I do not think the facts could be put any plainer. This rock formed a kind of eddy in the river and the ice used to "take out" in that section as far as the channel on the opposite side. There was no piling up of ice there. If, however, such a huge ice jam as Mr. Smith depicted had come down the river in its natural condition it would in all human probability have been largely disintegrated before reaching this rock or reef. At any rate the reef would under those natural conditions have opposed an effectual barrier to the rush of any huge pile or mass of ice below it. The natural channel around the edge of the reef would carry off from time to time part of the ice wall or mass that was stopped by the ledge and allow of the passage through of the accumulated water behind the ice jam. Such portion of the ice jam as was not so intermittently carried down the channel around the reef would be stranded on the reef and effectually prevented from doing injury to the bridge.

I have dealt at more length with this phase of the case than perhaps I was justified in doing, but the more I read of the evidence and the more I pondered upon the problems presented to us for solution, the

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more convinced I became of the grave importance of this ledge of rock in their solution. In the natural condition of the river the reef did form an effectual barrier against any huge bergs of ice being carried down past it into the reaches of the river below.

As to the damages I would not have been disposed to send the case back for further evidence on the sole question of the amount of damages sustained had the Court of Appeal agreed on the point with the trial judge. Neither on the other hand am I disposed to alter their disposition of the case in referring it back to obtain more satisfactory and complete evidence of the actual damage sustained.

I regret the further delay, but am in favour of confirming the judgment appealed from and dismissing the cross-appeal.

IDINGTON J.—I think this appeal should be dismissed with costs and the cross-appeal be allowed with costs and the judgment of the learned trial judge restored in its entirety.

A book might be written giving reasons for such conclusions. I do not think I can do so usefully.

The judgments of the learned trial judge and of Mr. Justice Bossé, so far as the main issues determining the responsibility for the damages are concerned, furnish the general reasoning I adopt in regard thereto.

I am tempted to add just one or two observations.

I venture to think that if any man of intelligence and an observant turn of mind spent a winter and spring on the bank of any of our rivers at a point where there was a stretch of rapids and above and below that stretch others of still water, he would find

abundant room to doubt many and modify others of the statements of opinion that appear in the evidence of these experts appellants ask us to accept as against the expert evidence given on respondent's side of the case.

He would, I imagine, find the rapids the last to be frozen over in winter and the first to be open in spring, and when witnesses express in emphatic language sweeping opinions that seem to discard the consideration of results of such daily experience, they do not add to the strength of their testimony.

Again the theory is set up by the defence that a dam facilitated, by increasing the body of water it created, the removal of the ice that had formed a jam. If this is correct, it was a serious mistake for the respondent's manager and men to have removed just before the flood the flash-boards and thus in effect to lessen that body of water and the space under the ice covering of the pond for the ice issuing out of the jam to disappear in.

It is further to be observed that it is stated the back water would extend 1,000 to 1,200 feet further up the river when the flash boards raised the dam their full height of three feet than when they were off.

A very large area of the rapids would thus be submerged and the consequent formation of ice be much thicker than over the rapids in their natural state; if indeed in such latter case, there had been any formed over the whole of that area.

This area might be roughly estimated at 1,000 feet in length by the width of the river, from five hundred to eight hundred feet.

If this mass of ice did not itself help as a substan-

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tial addition to the usual field of ice in the dam as it existed before appellants' improvements to obstruct and hinder the clearing of the river, then all I can say is it did not operate as ice usually does. The removal of the flash-boards after this increased body of ice was formed and new needs had arisen for increased space in which it might disappear would of itself be crass negligence if there be anything at all in the appellant's theory.

But that is not all, for the flash-boards were removed before the flood, and if doing so did not lower the ice so that over that field of rapids it would touch the rocks that formed the rapids in that area, it would be owing only to the ice being tied at the river banks so as to hold up the entire field of ice, as Mr. Gauvin, a witness of respondent's, suggests might to a certain extent be the case.

He says it would to a certain extent sink in the centre part of the river. At all events, I am not persuaded that this whole process of raising the river by flash-boards, so that it would submerge the rapids and produce a vast mass of thick ice, and give it a chance by removal of the flash-boards to sink and stick on the rocks, was of that beneficient order of things some witnesses and defendants would lead us to believe.

I doubt if the place for ice escaping from the jam to disappear in, was quite as open as it might have been to receive such disintegrated jams as had formed above.

Indeed, I doubt if the theory put forward is even a respectable theory, much less a working or a workable one.

I would have preferred some accurate observations as to the depths of the river, the thickness of the ice, the actual area of the rapids (of which I have made

only a guess), the usual volume of the water flowing there, and a comparison in these several regards with what existed on the occasion in question, and the means of like comparisons further up stream, before I could accept what seems inconsistent with reason. I would also have liked amongst other things, a better idea than I can form of the conformation of the land on either side back from the river margin or bank. I admit some of the material to aid in arriving at conclusions on some of these points is before us, but not all.

Again there was another field of rapids and frozen ice (of possibly greater extent than that which the use of the flash-boards created), and which raised questions as to it. It was that lying between the point to which the old dam backed waters to and that which the new dam without the flash-boards backed the waters to. The same questions as arise from the use of flash-boards, so far as the mere raising of water submerging the rapids is concerned, arise as to this field of ice. The consequences of sudden change brought about by the removal of the flash-boards, lowering the ice do not arise as to this field. But answers to similar questions relative to it in regard to the results of accurate observations may well be sought for as above suggested. Very much is given in one exhibit for this year 1903-04, but no means so far as I can see is furnished for scientific comparison.

Moreover, the changed conditions arising from ice cutting done that year are for purposes of comparison a disturbing factor though no doubt expected to have been beneficial.

I merely mention these few matters as some of what might have been settled and put before the court

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by an intelligent and capable expert; and to illustrate wherein on one point or some points my understanding has not been enlightened. It rested on appellants to have cleared up such matters once a *primâ facie* case had been made by plaintiff.

I refuse to accept unless absolutely necessary the mere *ipse dixit* of any expert when presented for my acceptance merely as an act of faith, and without the aid of such reasons as his reasoning power, or means of, and result of the use of means of, observations may have developed.

The more capable an expert is, the more likely he is to make in a few words his meaning clearly appear to the common man to be founded on reason.

I make these remarks because though there has been presented a mass of facts they are not so complete as to render them of great service and were not so used and presented by the men of whose eminence, wisdom, skill and learning we heard so much as to make of them a comprehensible defence that necessarily rebuts the case made out by the evidence for the plaintiff.

Many other things put forward by some of those whose professional eminence, it is urged, is such as to enable us to discard entirely the opinions of men, who, for aught I know, may be quite as eminent, may or may not stand such tests as I have applied to these points I have referred to.

All I can say is that after much time and consideration given to the whole case I cannot find either in the expert evidence or the other valuable evidence of the appellants, that it meets the case which I think is made by the respondents.

As to the damages, I cannot see that the appel-

lant should first take its chance of an assessment by the learned trial judge, fail to meet the reasonable case for assessments made there, and then seek, or be allowed to find, another opportunity of threshing the matter of damages out before a referee or referees.

That branch of the case should, if such a course were intended, have been left aside before or at the trial. Perhaps, speaking for myself, I would have preferred that a board of eminent experts should have investigated and tried the whole matter. Too late for that now, and besides there must be an end to any law suit.

I cannot find that appellants suggested such a course or such as that they now seek for.

As to the title to the property, every one seems to have assumed up to the time of this action that the respondent had such possession that the title was, *primâ facie,* such as to entitle the founding the action upon it.

MACLENNAN and DUFF JJ. concurred in the opinion stated by Davies J.

Appeal and cross-appeal dismissed with costs.

Solicitors for the appellants: *Brown, Montgomery & McMichael.*

Solicitor for the respondent: *Wilfred Mercier.*