

Privy Council Appeal No. 108 of 1929.

The United States Shipping Board - - - - - *Appellants*

v.

The Ship "St. Albans" - - - - - *Respondents*

FROM

THE SUPREME COURT OF NEW SOUTH WALES (IN ADMIRALTY).

JUDGMENT OF THE LORDS OF THE JUDICIAL COMMITTEE OF THE
PRIVY COUNCIL, DELIVERED THE 26TH JANUARY, 1931.

Present at the Hearing :

LORD MERRIVALE.

LORD ATKIN.

LORD RUSSELL OF KILLOWEN.

Nautical Assessors :

ADMIRAL SIR R. NELSON OMMANNEY, K.B.E.

COMMANDER L. W. BAYLDON, R.N.R.

[*Delivered by* LORD MERRIVALE.]

The appellants, the United States Shipping Board, are owners of the "Crown City," a steel screw motor-ship of 5,428 tons gross register, and 426 feet in length, which on the 22nd October, 1927, found herself in collision with the defendants steel single screw steamship "St. Albans," a vessel of 4,119 tons gross register and 367 feet in length, in Sydney Harbour near to Bradley Head, where is found the turning point and place of passing of the traffic into and out of the Harbour. The "Crown City" was outward bound for Melbourne from Woolloomooloo Bay within the Harbour. The "St. Albans" was inward bound from Japan.

In its actual incidents the collision, which took place in broad daylight, was of an ordinary kind involving simple questions to be determined upon the usual conflict of evidence as to the exact place of the casualty and the course and management of the ships. The proceedings in the litigation have been of an

unusual kind. Under the provisions of the law locally applicable a Commonwealth Court of Inquiry was held, presently after the collision, whereat both parties now in litigation were represented by Counsel. Following on the enquiry the now appellants brought their action in the Supreme Court of New South Wales (in Admiralty) alleging the respondents by their servants to have been to blame for the collision. After preliminary acts had been filed the parties agreed that the action should be tried on the evidence given at the inquiry. Respondents, however, called at the hearing before the Chief Justice of New South Wales a surveyor to explain certain photographs, hereafter mentioned at length, which had been produced by one of the witnesses at the inquiry. Then the troubles of the parties as to procedure commenced.

Before the Court of Appeal the respondents obtained leave to call further evidence, and in fact called three land surveyors who gave evidence which they stated to be proof of facts demonstrated by or demonstrable upon the photographs. On the strength of this additional testimony, the finding of the Trial Judge in favour of the appellants was reversed. What is mainly in question here is the admissibility of this evidence, and if it be received, its proper effect in the determination of the question of liability for the collision.

The nature of the additional proof received in the Court of Appeal and its value as evidence raise questions of law and practice of some general importance.

To make the main facts of the collision intelligible the courses of the two ships need to be appreciated.

The usual course of an outward bound vessel, upon rounding Garden Island, which lies eastward of Woolloomooloo Bay, is to get upon a heading of 95° —that is E. 5° S.—and on that course to proceed across the Harbour until Bradley Head Lighthouse is about abeam, and then under a starboard helm to steam out on a northward and eastward course towards the Sound (by West Channel or East Channel).

On the occasion in question the course of the "Crown City" outward bound from Woolloomooloo Bay and that of the "St. Albans" inward by way of West Channel to Woolloomooloo Bay brought them at about the same time to the immediate vicinity of the Head. At the moment of the collision the "Crown City" had not reached her turning point, and on the other hand the "St. Albans," coming from the West Channel had advanced southward, had had the lighthouse abeam, and had engaged herself in the necessary helm action for making her turn.

The "Crown City" had speed of about 8 knots till just before the collision. The speed of the "St. Albans" for reasons not immediately necessary to be stated, was no more than about 4 knots. The exact course and position of the "Crown City" and the place of collision were in dispute.

The evidence at the public inquiry of witnesses from the "Crown City" and others called on behalf of the now appellants

was that the "Crown City" set on her outward course off Garden Island well on the south side of the channel and continued upon a course of 95° and remained on that course until her engines were put full speed astern to avoid collision with the "St. Albans." That course it was said gave her a heading on which she would have passed with a moderate clearance under the stern of a French vessel the "Commissaire Ramal," which was at the time moored at a point about S.S.E. from Bradley Head Light at a distance from the Light of some 1,500 feet.

The "Crown City" was in charge of a Sydney Harbour pilot who said he took the usual outward course until collision was imminent. The evidence from the ship corroborated this. It was also substantiated by testimony from the captain of the "Commissaire Ramal" and the pilot who was in charge of her, and by two public officers, the signalman at Garden Island and the signal master who was on duty on a signal tower eastward of the Harbour. Each of the two last mentioned witnesses described his observation of the collision and stated a line of sight from his own standpoint upon which it occurred.

The net effect of the "Crown City's" evidence was to define the place of collision as being upon a line southward of Bradley Head at a distance from the Light which could not well be less than 1,500 feet.

The officer who was in charge of the "St. Albans" stated that she passed the Head at about 300 feet, that when they got abreast of the Light the helm was put hard aport and that the vessel was about 300 feet off from Bradley Head at the collision. He said also that the "Commissaire Ramal" was lying not more than 500 feet from the Head. The "St. Albans" captain said that she was abeam of Bradley Head when she took her engine and helm action to avoid collision and was then 500 feet from the Light with about 300 feet of navigable water. Her second officer's evidence was that she passed Bradley Head at 300 feet from the Light and thereupon took helm action. The officer in charge and the captain also deposed to having observed the "Crown City" on her eastward course at successive points practically in line with the Head—the more distant some 2,500 feet off and the nearer about 600 feet. They fixed the place of collision southward of the nearer of these points and purported to establish this by evidence of bearings taken—as was said—while the "St. Albans" was still at the place of collision.

The point so indicated appears to be something less than 1,000 feet in a south-westerly direction from the Light.

The three photographs which have been mentioned were produced at the public inquiry by the master of the outward bound steamship "Orungal," as having been taken by a passenger on his ship when she was proceeding on her course by the West Channel after she had turned under starboard helm off Bradley Head. They show the vessels just before the collision; in collision; and afterwards, when the "Crown City's" stern was some three-fourths

of her length eastward from the stem of the "St. Albans." Each has as background a long stretch of the frontages of the harbour extending along its southern and south-western shores. By questions directed to the nautical witnesses who saw the collision and by evidence of a surveyor it was sought to be shown on behalf of the "St. Albans" that the place of collision could not have been substantially further from Bradley Head than the point deposed to by the master and the other officers of the "St. Albans." The surveyor by examination of the background of the photographs identified outstanding objects in the background on either hand, and by a process the reverse of that by which nautical bearings are taken, used the alignments of the identified buildings in order to draw transit lines and to ascertain the focal point at which such lines intersect, which point it was said must mark the position of the lens of the photographic camera when the view presented in the photograph was obtained. The surveyor plotted on a chart the position of the "Crown City" so determined and stated it to be a position in which the bow of the ship was about 950 feet from the Bradley Head Light.

Importance was attached at the hearing in the Admiralty Court and in the arguments before their Lordships to evidence given by numerous witnesses at the public inquiry with regard to the course of the "St. Albans" in the five minutes immediately preceding the collision. Off Bradley Head incoming vessels bound for Woolloomooloo Bay must make a turn of five points to come over from the southerly course down the West Channel to their westward course towards the reach between Garden Island and Fort Denison. The "St. Albans" preliminary act states that her course when the "Crown City" was first seen was S.W. by S. $\frac{1}{2}$ S. What was said generally by the "Crown City's" witnesses was that "she did not make the turn." Captain McCaw of the "Crown City" said she was on a course of about S.S.W. and to all appearances did not alter her course. The "Crown City" pilot said the "St. Albans'" course when sighted was S.W. by S. $\frac{3}{4}$ S. and at the collision "was not higher than S.W. $\frac{1}{2}$ S. and may be further south than that." The master of the "Commissaire Ramal" "did not think she made any change in her course."

The witnesses for the respondents gave evidence which on the whole was consistent with their preliminary act, where the respondents having stated their vessel's course when the "Crown City" was sighted said that the action taken by the "St. Albans" to avoid the collision was that "the engines of the 'St. Albans' were put full speed astern, three short blasts blown, and the helm was put hard aport, and the starboard anchor dropped about two minutes before the collision." The master said "We got abreast of the Light and the helm was put hard aport. The ship began to swing but very slightly on account of her going so slow. Then we decided to go full speed astern and let go the

starboard anchor." "The whistle was sounded three blasts and her engines put hard astern."

The "St. Albans'" chief officer spoke to the same effect. Her third officer said the ship hauled out when approaching Bradley Head, then the helm was put hard aport and her head swung S.S.W. to S.W. He "thought she canted a little to starboard." The vessel's speed was said not to have exceeded 4 knots, and the general impression given by the evidence of those in charge of her was that at that speed she did not come round for her intended westerly course as she was expected to do. The "St. Albans'" helmsman was not called at the inquiry and her engine room entries were not put in evidence.

The learned Chief Justice of New South Wales, before whom the appellants' action was heard in the Admiralty jurisdiction, placed under the inevitable disadvantage of deciding a collision case on a shorthand note of the statements of witnesses he had not seen, with such assistance, if any, as could be derived from the charts, sketches and photographs which were put in, came to the conclusion that the story of the plaintiffs' witnesses was the more trustworthy and was inherently more probable than that of those from the "St. Albans." "I find it quite impossible," the learned Judge said, "to accept the story these latter tell." Assuming their place of collision even to be approximately correct, the learned Judge could not see why if the "St. Albans" was under control and was being efficiently navigated, there should have been any collision. But he found as a fact, on the evidence of the "Crown City's" officers and the independent witnesses that the collision took place something like 1,600 feet to the south of Bradley Head.

The photographs taken on board the ss. "Orungal" were considered by the Chief Justice in the light of conflicting evidence given by witnesses as to the inferences to be drawn from them, and he found himself unable to form a trustworthy judgment upon their contents and bound to deal with the case on the evidence of the eye-witnesses.

The learned Chief Justice held further that if the "Crown City" had been as near as 1,000 feet to the Head there should still have been room enough for the "St. Albans" to pass her in safety upon her proper side.

"I think, therefore," the learned Chief Justice concluded, "that for some unexplained reason the 'St. Albans' kept too far to the southward before porting her helm to proceed up the harbour, and that she is to blame."

Arguments, which had been raised on the footing that the "Crown City" failed to keep to her starboard hand in a narrow channel, and again on the footing that the ships were crossing ships and that the duty of the "St. Albans" in that position was to keep out of the way of the "Crown City" and that of the latter vessel to keep her course and speed, were duly considered.

Very naturally, as it seems to their Lordships, the learned Chief Justice found himself in difficulties as to defining the limits of the narrow channel, to which in this case Article 25 of the Regulations for preventing Collisions at Sea would be applied, and declared himself unable to find that the "Crown City" was in fault under this head. He also held in favour of the "Crown City" that the "St. Albans" was under a duty by virtue of Article 19 of the Regulations to keep clear of the "Crown City," as that vessel had been on the "St. Alban's" starboard hand, and under Article 21 that the duty of the "Crown City" in the circumstances was to keep her course and speed.

On the appeal of the now respondents to the Full Court, application was made by them for leave to adduce new evidence—that namely, of surveyors, to prove what conclusions ought to be drawn from the photographs which had been put in evidence. The application was strenuously opposed, but upon the opinion of the majority of the learned Judges was allowed, and the evidence was in due course received. In view of the agreement of the parties as to the evidence to be received at the hearing of the action, this reception of evidence was made a ground of appeal to His Majesty in Council by the appellants. An interesting question of the operation of the relevant statute was thereby raised. As to this, however, no more need now be said, since the appellants did not eventually press the objection before their Lordships.

The evidence of the surveyors who were called by the respondents to apply in the case facts which they declared to be established by scientific use of the photographs in question was subjected before the Full Court to close cross-examination, but the appellants did not call surveyors or other scientific experts. They insisted that the propositions of fact asserted against them could not be sustained on the material before the Court.

The evidence admitted in manner stated before the Court of Appeal was for all practical purposes embodied in a diagram which purported to lay down the focal points at which the three photographs respectively were taken, and by reference to the backgrounds to extend to points thereon radial lines within which, as it was said, the vessels lay at the material times. Given the distance from the shore of each focal point and the angle of convergence thereon of the radial lines the situation of each ship could, it was contended, be geometrically determined with practical certainty. Proceeding on this footing the surveyors testified that the place of collision was virtually that alleged on the part of the "St. Albans," and not more than 950 feet from the shore.

The three learned Judges in the Court of Appeal found the diagram produced as before mentioned to be a true presentment of the material facts as to the positions of the "Crown City" and the "St. Albans" at the material times. These the Court held to be the facts demonstrated by the photographs. Acting upon this view the learned Judges rejected the evidence of the eye-

witnesses on which the learned chief Justice had arrived at his decision and gave judgment for the now respondents. "I have no hesitation," the Acting Chief Justice said, "in discarding at once any oral evidence from either side so far as it is inconsistent with the facts disclosed by the photographs."

Campbell J. said: "I see no reason for refusing to accept the evidence of the witnesses . . . called for the defendants on the hearing of the appeal . . . I accept their evidence and I look at the photographs in the light of it." Davidson J. agreed.

The learned Judges were also agreed in considering that upon the evidence given at the public inquiry the findings of the Trial Judge in favour of the "Crown City" were unimpeachable, if not inevitable. "I should have been unable," Mr. Justice Campbell said, "to come to any other conclusion."

The judgments in the Court of Appeal do not deal specifically with the question whether, assuming the place of collision deposed to by the surveyors, the "St. Albans" ought to be held to blame for the collision. The learned Chief Justice was of opinion that she ought.

The reasoning on which the professional witnesses in the Court of Appeal based their conclusions proceeds in this manner: On the photographs in question certain pairs of buildings and objects are seen to be more or less directly in line upon the same perpendicular plane: these same buildings and objects must lie horizontally in a more or less direct line from the lens in which the photograph picture was received; the point of intersection of converging lines extended horizontally through the respective pairs of buildings and objects will show what was the point at which the camera was used. The measurements taken by the surveyors were not challenged, nor was their good faith. What was in dispute was whether the premises assumed or obtained could warrant their conclusions of fact.

Underlying the matter last mentioned is the inquiry whether there was before the Court of Appeal evidence of fact upon which the findings of the Court of first instance could be, or ought to be, displaced.

The evidence in question, its admissibility and its juristic effect, were subjects of close and prolonged examination in the arguments addressed to their Lordships on the hearing of the present appeal. Counsel reasoned the matter on general principles and it is useful under the circumstances to see what are the rules which on general principles are applicable to the case.

The use in evidence of photographic pictures and the limits within which they are judicially receivable by way of proof of matters of fact has often come under consideration before English Courts. For instance, in a case of *Reg. v. United Kingdom Electric Telegraph Company, Ltd.* (3 F. & F. 73), in 1862, Baron Martin, after argument, received as evidence photographic views showing the configuration and general nature of the surface of a highway, where the matter in question was nuisance by an alleged obstruc-

tion, and in a more modern case, in the Court of Appeal, in *Hindson v. Ashby* ([1896] 2 Ch. 1 at pp. 25-27), A. L. Smith L.J., and other Lords Justices demonstrated the necessity for careful delimitation of the uses for which, upon mere production of them, photographs can be accepted as means of proof of matters of fact. Clearly a photographic picture cannot be relied upon as proof in itself of the dimensions of the depicted object or objects, and cannot be made properly available to establish the relative proportions of such objects except by evidence of personal knowledge or scientific experience to demonstrate accurately the facts sought to be established.

The question of the evidential value of the testimony of the three expert witnesses for the defendants depends in like manner upon ascertained limitations which define the power of Judges to accept opinions of witnesses as proof of matters of fact.

The extent to which the opinions or conclusions of skilled persons are receivable by way of proof in point of fact has not been seriously in doubt from the time when, in 1782, in *Folkes v. Chadd* (3 Dougl. 157), Lord Mansfield stated the grounds on which the evidence of Smeaton, the famous constructive engineer, was to be admitted upon a disputed question of obstruction to a harbour: "the opinion of scientific men upon proven facts may be given by men of science within their own science." Another Chief Justice, Lord Russell of Killowen, explained the rule in a modern case of *Reg. v. Silverlock* ([1894] 2 Q.B. 766). The witness must have made a special study of the subject or acquired a special experience therein. "The question is," Lord Russell said, "Is he *peritus*: is he skilled; has he adequate knowledge?"

Some of the scientific topics involved in the contest here were discussed by Counsel in course of prolonged argument as to proofs afforded by the photographs, on the footing that judicial notice is taken of matters which are of common knowledge. Among these were subjects such as these: the difference of scale in the picture obtainable by a single lens of objects in the direct line of view and objects in the margins of the field; the effect in photography of the extent of the focal angle; the results due to development on a plane surface of pictures obtained in photographic perspective; the means of neutralising the effect of the curve of the field of the lens. Counsel purported to discuss the topics in question in the light of personal experience, as matters of common knowledge.

What are the limits within which matters such as those here mentioned are within judicial cognizance is not necessary now to be determined. Evidence of the sources of common knowledge, if not of its extent, may perhaps be obtained by reference to a cyclopædia and the lists of text-books there to be found. Detailed information supplied from such sources requires usually to be established by experts.

That the extent to which and the processes by which an accurate topographic plan can be produced from a pictorial delineation of a scene are matters of common knowledge could

hardly be said, though such questions have long occupied the attention of men of science. A well-known member of the Bar, who is also a distinguished student of applied mathematical science, has traced in a recent work ("Generalised Linear Perspective with Special Reference to Photographic Land Surveying, by J. W. Gordon, K.C., London, 1922") the development of knowledge in relation to the subject since the time when an eighteenth century mathematician dealt with it in a treatise on generalised perspective. Two pre-requisites for the conversion of a photographed picture of a landscape into a map or plan—*after* ascertainment of the viewpoint of the photographer—are said to be proof that the lens used had been accurately corrected to yield what is known as a flat field and knowledge of the angle to the horizontal plane at which the camera was held.

Reference is made here to the scientific problems which have just been indicated not by way of preface to any judicial conclusion as to the true value of the photographs in question as the basis for geometric surveys of the scenes they present, but to emphasise two manifest propositions, one that the skill or science called for by the task mentioned is not that of the land surveyor and the other that there was not before the Court of Appeal the evidence of any witness skilled and experienced in the discharge of such a task.

What follows in their Lordships' view upon the examination which has now been made of the new evidence received in the Court of Appeal is that standing alone it does not warrant departure from the judgment of the Court of first instance, which, without new evidence, was admitted to be unimpeachable.

The judgment of the learned Chief Justice, moreover, as has already been mentioned, proceeded upon two grounds: firstly, acceptance of the "Crown City's" place of collision, and, secondly, consideration of the questions of nautical skill which arise if the "St. Albans'" place of collision be assumed.

Their Lordships had the advantage at the hearing of the assistance of nautical assessors to whom they submitted a series of questions bearing immediately on the case made for the "St. Albans."

As to the point of time, and the place at which on her course, as stated on her behalf, the "St. Albans" could properly take helm action, engine action, or both, the view stated by the assessors was that the "St. Albans" ought not to approach the Light and Head nearer than 500 feet and that she would be in a position to port her helm for rounding the Head when the Lighthouse was on a bearing of 276° and at the distance of about 580 feet shown in the line of her course marked on one of the plans put in evidence, but that this is a position nearer the shoal water than should be taken except to avoid collision.

As to the narrowest breadth of water-way in which the "St. Albans," in good order and properly navigated, could certainly be able to make her turning movement so as to round

Bradley Head in safety and proceed on her newcourse westward the assessors stated it at 250 feet, but added that with the "Crown City" in view and Bradley Head to be rounded, to round within this distance of the "Crown City" would involve considerable risk to both vessels.

Having regard to the accepted position of the "Crown City" in relation to the "Orungal" and the point northward of Bradley Head at which the "St. Albans" declaredly passed the "Orungal" the assessors were asked whether the "St. Albans" would be hindered or embarrassed in shaping to pass on and keep clear of the "Crown City" if the "Orungal's" distance from the Light when abeam of the Light was 1,100 feet or 1,200 feet. They replied that under these conditions the "St. Albans" should not have been hindered or embarrassed.

The assessors were asked further: assuming the place of collision alleged by the "St. Albans," and the "Crown City" on the course of 95° which brought her to that point, could the "St. Albans" by reasonable care have avoided collision? They replied that from a seaman's point of view the "St. Albans" on that assumption had a somewhat difficult problem, considering that her speed was only about 4 knots and her turning power therefore very slow. They amplified their answer thus:—She had two alternatives (*a*) to go full speed ahead in hopes she could turn sufficiently fast to clear the "Crown City"; and give one short blast; (*b*) to go full speed astern and let go anchor; this she did; but not soon enough. She veered her cable to 30 fathoms. Had she checked it at 15 or 20 fathoms it might have brought her up just in time to avoid collision. Reasonable care was taken, but just too late.

The last of these answers throws light on a striking part of the evidence in the case, that, namely, which suggests that the "St. Albans" both failed to make her turn and failed to bring up, as promptly as those in charge of her expected. The real cause of the collision seems to be probably found in this failure.

As far as the relative situations of the vessels at material points of time are concerned their Lordships, accepting as they do the advice of the Nautical Assessors, are satisfied that the collision was due not to the "St. Albans" being kept by the "Crown City" so close to the shore that she had not room to make her turning movement in safety, clear of the "Crown City," but to her failure from causes incidental to her own navigation both to make the turn and keep clear of the "Crown City."

The questions which were raised between the parties, as to the effect of the various Regulations for Preventing Collisions at Sea, which control navigation of vessels passing in a narrow channel and decide as between approaching vessels which is the "give way" ship, depend upon conclusions of fact as to the extent and bounds of the narrow channel to which the relevant Regulation is to be applied and as to the relative movements of

the "Crown City" and the "St. Albans," before the collision, which, in view of the conclusions already stated, would not usefully be examined in the present case.

Their Lordships will humbly advise His Majesty that the appeal should be allowed, and the judgment of the Chief Justice restored, and that the respondents should pay the appellants' costs here and below.

In the Privy Council.

THE UNITED STATES SHIPPING BOARD

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THE SHIP "ST. ALBANS."

DELIVERED BY LORD MERRIVALE.

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