[HIGH COURT OF AUSTRALIA.]

COX BROTHERS (AUSTRALIA) LIMITED AND ANOTHER . . . . . PLAINTIFFS, } APPELLANTS;

AND

THE COMMISSIONER OF WATERWORKS DEFENDANT, RESPONDENT.

ON APPEAL FROM THE SUPREME COURT OF SOUTH AUSTRALIA.

H. C. OF A. 1933.

MELBOURNE, *Sept.* 20; *Nov.* 6.

Rich, Starke, Dixon, Evatt and McTiernan JJ.

Water—Negligence—Nuisance—Escape from burst water-main—Main erected under statutory authority—Damage to neighbouring property—Sufficiency of precautions to ascertain and remedy leakages.

The respondent, under statutory authority, laid and maintained water mains in the streets in Adelaide. At 11.15 p.m. on the night in question one of the water mains burst. At 12.30 a.m. it became dangerous to the appellants' property, and it was reported to the respondent's department a few minutes afterwards. The respondent's officer, without negligence as the trial Judge found, did not commence to turn off the water until 1 a.m., and the water was not turned off until 1.10 a.m. The respondent's department relied upon the police and members of the public to report leaks and maintained no inspection for the purpose of discovering them. The water which escaped damaged the appellants' premises between 12.30 and 1.10 a.m. In an action by the appellants against the respondent claiming damages for the injury caused by the escape of water.

Held, by *Rich*, *Starke*, *Dixon* and *McTiernan* JJ., that the respondent was not liable for the damage done without proof of negligence.

Held, also, by *Rich*, *Dixon* and *McTiernan* JJ. (*Starke* and *Evatt* JJ. dissenting), that the evidence did not establish that the respondent had omitted any reasonable precaution in the management and maintenance of the undertaking which might have averted the damage altogether; and by *Rich*, *Dixon* and

McTiernan JJ. (*Starke* J. dissenting), that the evidence did not establish that the respondent was negligent in failing to reduce the column of water at an earlier time and so avert a substantial part of the total damage.

Decision of the Supreme Court of South Australia (*Piper* J.) affirmed.

Appeal from the Supreme Court of South Australia.

The appellants, Cox Brothers (Australia) Ltd. and Ruthven Frederick Ruthven Smith brought an action in the Supreme Court of South Australia against the Commissioner of Waterworks claiming damages for wrongfully discharging water upon the plaintiff's land and premises situated in Pulteney Street, Adelaide, and for nuisance occasioned by the escape of water.

By its statement of claim the plaintiff alleged in substance :— 1. The plaintiff, Cox Brothers (Australia) Ltd. was the lessee and occupier of portion of the premises known as Ruthven Mansions situated in and abutting on Pulteney Street and there carried on its business of a departmental store. 2. The plaintiff, Smith, was the owner of the premises known as Ruthven Mansions. 3. The defendant placed along Pulteney Street a water main and pipes and thereafter failed and neglected to inspect or test the condition thereof and allowed one or more such water pipes to become in such a worn out and defective condition that at about midnight on 15th October 1931 a large volume of water escaped therefrom and was forced up through the roadway and into the premises so occupied and owned by the plaintiffs respectively. The escape of such water was a nuisance and caused special and particular damage to each of the plaintiffs. 4. The defendant had no proper system of supervision for the purpose of detecting the existence of defective water pipes or for the purpose of detecting, preventing and remedying the escape of water from such water pipes. 5. The defendant took no proper steps to regulate or reduce the pressure of water in such water pipes in accordance with the outlet of water by reason of its varying use and consumption during the various times of the night and day and consequently the water pressure in such pipes at midnight (when the escape of water occurred) was in fact greatly increased by reason of the maintenance of the same pressure of water and the lessened use and consumption of such water. 6. The defendant negligently

H. C. OF A. 1933.

COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATER-WORKS.

omitted to have men and other means in readiness to cut off the water flowing in such pipes or to reduce the water pressure in the event of an escape of water by reason of the bursting of a water pipe and in consequence of such neglect the water which escaped as aforesaid from the defendant's water pipes was negligently allowed to continue to escape and to run in and flood and damage the said premises for upwards of one hour after the defendant and his officers had notice of its escape. The plaintiff Company claimed £3,000 damages, and the plaintiff Smith, claimed £500 damages.

The defence, in substance, was as follows:—1. The defendant admitted pars. 1 and 2 of the statement of claim. 2. The defendant admitted that he placed along Pulteney Street, Adelaide, a water main and pipes. The main and pipes were so placed by the defendant by virtue of the provisions of the *Waterworks Act* 1882, having been laid down in the street in the year 1908 in a careful and workmanlike manner with suitable pipes and materials of the best quality. He denied that after the main and pipe were so placed he failed or neglected to inspect or test the condition thereof. He further denied that he allowed any of such pipes to become in a worn or defective condition on or about 15th October 1931 or on any other date. He admitted that on 15th October 1931 water escaped from such pipes and entered the plaintiffs' premises. 3. The defendant denied that he had no proper system of supervision for the purpose of detecting the existence of defective water pipes or for the purpose of detecting, preventing or remedying the escape of water from such pipes. 4. He denied that he took no proper steps to regulate or reduce the pressure of water in such water pipes as alleged in par. 5 of the statement of claim and alleged that at all times reasonable precautions were taken to ensure that the water pressure in the pipes was not excessive. He further denied that the water pressure in such pipes at midnight when the escape of water occurred was greatly increased either by reason of the maintenance of the same pressure of water and the lessened and reduced use and consumption of such water. 5. He denied that he negligently omitted to have men or other means in readiness to cut off the water flowing in such pipes or to reduce the water pressure in the event of an escape of water by reason of the bursting of a water pipe, and denied that the water

which escaped was negligently allowed to continue to escape and run in and flood and damage the plaintiffs' premises for upwards of an hour after the defendant or his officers had notice of its escape, and alleged that all reasonable steps were taken, after the defendant's officers were notified of the escape of the water, to reduce the water pressure in the pipes and to cut the water off.

The action was heard by *Piper* J. At the trial it was agreed that the questions of law and fact relating to the defendant's liability or immunity should be disposed of first and that inquiry into the amount of damage done should meanwhile be postponed.

In delivering judgment *Piper* J. made the following findings :—

" The defendant is the Commissioner of Waterworks incorporated by sec. 8 of the *Waterworks Act* 1882. On the night of 15th October 1931 one of his mains in Pulteney Street, Adelaide, burst and a great quantity of water from the main escaped to the plaintiffs' premises nearby and did damage. . . . The main was laid in the street under the authority of secs. 12 (v) and 18 of the Act above mentioned. By sec. 37 of the Act the defendant is required to distribute a constant supply of water ' to all persons entitled thereto under this Act,' and sec. 42 requires him to maintain communication between mains and all places in streets where mains are laid. By sec. 36 the defendant is required at all times, unless prevented by drought or other unavoidable cause or during necessary repairs to keep charged with water all his pipes to which fireplugs are fixed. The main in question was laid in 1908. There was no negligence in or about laying it. It would need to stand a pressure of 84 lbs. to the square inch and it was tested up to 344 lbs. It was of cast iron. Up to the night of October 1931 it had never burst. The part of the main where it burst in October had apparently never been examined or seen since it was laid. Early in 1931 a cut was made in the main some little distance away from the site of the subsequent burst, and the main, so far as it could be seen then, appeared to be in good order. Cast-iron mains vary in the periods for which they last in the ground—whether the variation should be attributed to the mains or to the soils they are placed in is not known. They may be as good as ever after 70 years, they may deteriorate in 10 or 12 years. When the burst piece of pipe in this case was examined

H. C. OF A. 1933.

COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATER-WORKS.

there was found a hole some five inches across and the metal fragment or fragments from that hole could not be found, but near the hole were signs of deterioration on the outside of the pipe suggestive of the influence of something in the surrounding soil. The metal seemed to vary a little in thickness but it was not measured, and if it did vary there is no suggestion that the variation could reasonably have been discovered while the pipe was sound. In the great mileage of mains laid in the metropolitan area (city and suburbs) the bursting of mains somewhere or other is very frequent—on an average there are quite two dozen bursts every week. Ordinarily the water escapes from a burst main without doing any damage, though 'many worse bursts' than the one in this case have been known but 'not so disastrous.' In the present case the hole was slightly on the buildings side of the pipe and consequently a strong jet of water was directed high up and towards the plaintiffs' premises. 'A column as thick as happened here' had not been known before. The defendant has 'no system by which the escape of water can be ascertained other than by the reports of members of the public.' A reward of 5s. is paid to a person—the first I suppose—reporting an escape. Report can be made by telephone and the Waterworks Office at Kent Town is in the 'Emergency' list in the telephone directory. The metropolitan area, excluding Port Adelaide, is divided into twelve districts, and each has a turncock resident in it. At night one has to attend to two districts, each being off duty in alternate weeks. On a burst becoming known a turncock proceeds to the spot. In the present case he had to come in from Norwood, and in order to stop the flow of water he had to close eight valves, closing them rather slowly so as to avoid 'waterhammer' which might result in other bursts. I find that the leak in the main had begun and water was rising to the surface of the road by 11.15 p.m. I find that the column of water towards Ruthven Mansions burst from the ground at a time very close to 12.30 a.m. . . . I find there was no negligence in Melville, defendant's caretaker at Kent Town, or Dunstan the turncock, in respect of the burst and that on the burst being reported, Melville, as promptly as possible instructed Dunstan, who went to Pulteney Street and opened a scour and closed the valves without delay.

The sum of the facts is as follows :—(*a*) Between 10 p.m. and 4 a.m. the pressure (which is from gravitation only) in the mains is at its 'peak.' (*b*) The defendant does no act to reduce or regulate the pressure between those hours. (*c*) The main was obviously leaking by 11.15 p.m. (*d*) A leak may of course occur at any time day or night. (*e*) The defendant's department relies on the public to report leaks and maintains no inspection for the purpose of discovering them. (*f*) The leak in this case became dangerous to the plaintiffs' and others' property within a minute or so of 12.30 a.m. (*g*) And was reported to defendant's department by telephone within a few minutes afterwards. (*h*) Defendant's turncock without negligence or delay of Melville or himself did not arrive or begin operations to prevent damage until about 1 a.m. (*i*) The rush of water was not reduced to a condition free of danger to property owners until about 1.10 a.m. (*j*) No damage was done after the last mentioned time."

His Honor held that the defendant was not liable in nuisance, and as to negligence said "I find the defendant was not negligent in any respect—(*a*) in or about the provision or laying of the main ; (*b*) in not maintaining any inspection for—or which would lead to—early discovery of leaks ; (*c*) in relying upon the public to report leaks ; (*d*) in not reducing the pressure at about 10 p.m. ; (*e*) in not knowing of the leak before about 12.40 p.m. ; (*f*) in not having shut off water from this main sooner than it was—(i.) after the leak began, or (ii.) after it was reported. To maintain inspection would involve a prohibitive and in the circumstances wholly unreasonable expense. . . . To reduce pressure at night would, if it be not directly contrary to sec. 36, at least incur serious risk of insufficiency of pressure in case of fire occurring—a risk which it would be unreasonable to incur in order only to reduce the risk of damage by the bursting of mains."

From this decision the plaintiffs now appealed to the High Court.

Cleland K.C., and *Hardy* for the appellant. In the circumstances of this case what occurred in the street constituted a nuisance and the flooding of the plaintiffs' premises was a trespass as well as a nuisance. Either the pipes had become corroded and could not

H. C. OF A. 1933.

COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATER-WORKS..

withstand the pressure of the water or the pressure had become very much higher than the respondent believed. The respondent is liable for the damage done without proof of negligence. The outburst of the water was a nuisance and a trespass without proof of negligence (*Midwood & Co.* v. *Manchester Corporation* (1); *Charing Cross Electricity Supply Co.* v. *London Hydraulic Power Co.* (2)). Owing to the water being thrown on to the plaintiffs' premises for such a long time the damage was greatly magnified. There is no doubt that what occurred was both a nuisance and a trespass and the defendant is liable unless he can show that he was authorized either expressly or impliedly, and he must prove that what he did was a necessary consequence of what he was authorized to do (*Ogston* v. *Aberdeen District Tramways Co.* (3)). The question is, was the defendant authorized by statute to do what was done (*Municipal Tramways Trust* v. *Stephens* (4); *Geddis* v. *Proprietors of Bann Reservoir* (5)). If the statute authorizes the doing of this act, the onus of establishing the justification lies on the defendant and not on the plaintiff (*Metropolitan Asylum District* v. *Hill* (6); *Manchester Corporation* v. *Farnworth* (7)). These cases show that it lies upon the defendant to establish the absence of negligence. The defendants must show that the flooding of the plaintiffs' premises was a necessary or inevitable consequence of the exercise of their powers. In this case there is actual evidence of negligence and that consists of two branches—(*a*) negligence prior to the outburst, and (*b*) negligence subsequent to the outburst. This element of negligence is quite independent of the liability for nuisance and trespass (*Mose* v. *Hastings and St. Leonards Gas Co.* (8)). No inspection was ever specially made of these pipes since they were laid down in 1908. There must have been a deterioration in the pipes as they were tested up to a pressure of 344 lbs. to the square inch when they were put in and the maximum pressure at the material time was only 84 lbs. per square inch. The only precaution taken to prevent an outbreak was to prevent the water pressure

(1) (1905) 2 K.B. 597.
(2) (1914) 3 K.B. 772.
(3) (1897) A.C. 111, at p. 119.
(4) (1912) 15 C.L.R. 104, at pp. 113, 114.
(5) (1878) 3 App. Cas. 430.
(6) (1881) 6 App. Cas. 193, at pp. 212, 213.
(7) (1930) A.C. 171, at pp. 187, 202, 204, 206.
(8) (1864) 4 F. & F. 324, at pp. 327, 328; 176 E.R. 584, at pp. 585, 586.

from becoming excessive, and the only method of stopping an escape when it occurred was by turning the water off immediately and effecting repairs. The defendant relied only upon the members of the public to notify escapes. The constant outbursts gave notice to the defendant that there was a necessity for some prompt remedy in the event of an outbreak. The pipes could easily have been tested to ascertain whether they would withstand the pressure. No steps were taken to test them and this constitutes negligence. After the outbreak there was a long delay before the water was turned off and this also constitutes negligence. The evidence shows that there was one turncock for each district, and that at night one has to attend to two districts. Where a power is conferred upon an authority to do an act there is a co-relative duty to keep in repair (*South Australian Railways Commissioner* v. *Barnes* (1); *Lagan Navigation Co.* v. *Lambeg Bleaching, Dyeing and Finishing Co.* (2); *Snook* v. *Grand Junction Waterworks Co.* (3); *Green and Haydon* v. *Chelsea Waterworks Co.* (4)). [He also referred to *Geddis* v. *Proprietors of Bann Reservoir* (5); and *Waterworks Act* (S.A.) 1882, secs. 12 (v.), 23 and 37.]

Hardy. There was negligence in the night watchman not being able to communicate more promptly with the turncock. He arrived half an hour after the outburst and it took him about twenty minutes to turn off the main.

Hannan (with him *Hely*), for the respondent. The plaintiffs' evidence as to the delay in shutting off the water is entirely unreliable. The mere fact that water was trickling out on the roadway would not suggest that immediate attention was necessary. There was not a condition of danger apparent at 11.15 p.m. This was an unprecedented burst. The pipes should have lasted sixty or seventy years. The system of supervision provided by the department acted effectively and promptly. The pipes were laid down with due care, and were carefully tested before being laid down. To ask the Commissioner to take further precautions than he took would

(1) (1927) 40 C.L.R. 179, at p. 188.
(2) (1927) A.C. 226.
(3) (1886) 2 T.L.R. 308.
(4) (1894) 10 T.L.R. 259; 70 L.T. 547.
(5) (1878) 3 App. Cas., at p. 452.

H. C. OF A. 1933.

COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATER-WORKS.

be unreasonable (*Burniston* v. *Corporation of Bangor* (1)). The system of the Commissioner ensured that he got immediate notice of the burst main. The employee of the Commissioner acted promptly in shutting off the water. The trial Judge considered that the precautions taken by the Commissioner were reasonable and such finding should not be disturbed. Though the water could have been turned off sooner, that does not stamp the Commissioner's system as inadequate. It cannot be said that there is either trespass or nuisance until the obligation of the defendant to the plaintiff has been ascertained. Once it is alleged that there is a nuisance and a trespass, the whole question is begged because that implies that the Commissioner was under some duty to the plaintiffs and that he had committed a breach of it. That question cannot be determined until the statute is examined and that discloses that the right to lay pipes in streets is permitted by statute or the statute is futile. The plaintiffs' argument is based on the assumption that the Commissioner of Waterworks is an insurer of the plaintiffs (*Salmond* on *The Law of Torts*, 7th ed. (1928), p. 366 ; *Green and Haydon* v. *Chelsea Waterworks Co.* (2)). The plaintiff, in order to succeed, must rely upon *Rylands* v. *Fletcher* (3).

Cleland K.C., in reply. The important time is when the water commenced to do the damage. The Commissioner was not authorized to be negligent or to trespass on the plaintiffs' property (*Sadler* v. *South Staffordshire and Birmingham District Steam Tramways Co.* (4)). There was no evidence that in the exercise of their powers it was necessary to injure the plaintiffs' property. If the matter had been taken in hand in proper time no damage would have ensued. The Commissioner was negligent in not taking immediate steps to remedy this outbreak (*Fullarton* v. *North Melbourne Electric Tramway and Lighting Co.* (5)).

Cur. adv. vult.

(1) (1932) N.I. 178.
(2) (1894) 10 T.L.R. 259 ; 70 L.T. 547.
(3) (1868) L.R. 3 H.L. 330.
(4) (1889) 23 Q.B.D. 17.
(5) (1916) 21 C.L.R. 181, at p. 192.

The following written judgments were delivered :—

RICH J. Mr. *Cleland* presented his argument in support of the appeal under two divisions. He urged first, that negligence was unnecessary to his cause of action, and if it entered into the matter at all must be negatived by the respondent in order to make out its statutory justification ; and secondly, that in any event negligence was conclusively established. I think his first position fails upon reason and authority. The injury complained of did not arise from the installation or establishment of the undertaking or from anything in the character of the apparatus of which it is composed. It arose from the bursting of a pipe in the operation of the undertaking. Just as negligence must be proved in a railway accident so it must be proved when what is complained of is the manner in which the undertaking is conducted or maintained. So far as authority goes the cases which are collected and discussed in the Irish case of *Burniston* v. *Corporation of Bangor* (1) are decisive. The second question raised by the appellants' argument itself raises two separate questions, both, I think, of fact. The first is whether in the management and maintenance of the undertaking the respondent omitted any reasonable precaution which, if taken, might have averted the damage altogether. This, in substance, means, did the pipe burst through negligence ? I agree with *Piper* J. in the opinion that no want of care on the part of the respondent has been proved which would have prevented the pipe bursting or the column of water ascending and inflicting some damage upon the appellants. The second question is whether by an exercise of proper care the respondent might by his servants have reduced the column of water at an earlier time and by doing so averted any substantial part of the total damage. This I think is the pinch of the case. The facts were examined during the argument and, indeed, are summarily but adequately set out in the judgment appealed from. I am impressed by the fact that from the time the column of water first began to do damage until it ceased to do so forty minutes appear to have elapsed. Of this no more than ten minutes were required to perform the actual operation of opening the scour and turning the valves. Can the flow of the water during any substantial part of

(1) (1932) N.I. 178.

H. C. OF A. 1933.

COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATERWORKS.

Rich J.

the remaining half hour be ascribed to the negligence of the respondent ? The arrangements which existed for the despatch of turncocks to the appropriate valve in the case of a burst are not beyond criticism. It requires no ingenuity to suggest improvements by which in case of any disastrous outflow of water the turncocks could arrive more speedily at the place where they are needed, but it does not necessarily follow that the respondent's failure to adopt the speediest means for rushing turncocks to an emergency is negligence. The character of the exigence must be considered and the frequency with which dangerous bursts may be expected to occur ; and the kind of additional damage which the continuance of the flow of water is likely to do must not be left out of account. The evidence includes little information on these topics. We are not told whether other systems allow their turncocks to remain at home and undress ; whether they are provided with push bicycles or with motor cycles ; what area is commonly served by one turncock ; whether in other systems turncocks are in direct telephone communication with the authority's office. The practice in other cities, while not decisive, could not but help in forming a judgment as to what was a reasonable standard of precaution. No doubt burst pipes of some sort are a daily occurrence in any large system. But it is not in accordance with every day knowledge to suppose that serious damage occurs from many of the bursts. We have no information as to the actual experience of Adelaide. Upon the evidence I am not prepared to overrule the opinion of *Piper* J. on this question of fact. As I am in complete accord with his Honor's judgment I think the appeal should be dismissed.

STARKE J. The Commissioner of Waterworks laid down certain water mains and service pipes in the City of Adelaide under the authority of the *Waterworks Act* 1882 of South Australia. One of these mains, in Pulteney Street, burst, and a column of water many feet in height escaped and poured into and upon the premises of the appellants, whereby considerable damage was done. No doubt, if works authorized by an Act of Parliament be constructed negligently or unskilfully, and damage result, the constructing

authority is liable for that damage (*Mersey Docks Trustees* v. *Gibbs* (1)). The works, however, in the present case, were constructed without negligence, as the learned trial Judge held, and that finding cannot be disturbed. The principle above stated does not, therefore, avail the appellants. It has also been determined that if works constructed and used under the authority of an Act of Parliament be negligently managed or used, and damage result, the authority or person so managing or using the works is liable for that damage. But the right of action is founded upon negligence, and negligence is the gist of the action (*Whitehouse* v. *Birmingham Canal Co.* (2) ; *Blyth* v. *Birmingham Waterworks Co.* (3) ; *Geddis* v. *Proprietors of Bann Reservoir* (4) ; *His Highness The Gaekwar of Baroda* v. *Gandhi Kachrabhai Kasturchand* (5) ; *Hawthorn Corporation* v. *Kannuluik* (6) ; *Southwark and Vauxhall Water Co.* v. *Wandsworth Board of Works* (7) ; *Green and Haydon* v. *Chelsea Waterworks Co.* (8) ; *Snook* v. *Grand Junction Waterworks Co.* (9)). The learned trial Judge, however, found that the Commissioner was not negligent in managing, using or supervising his works, and particularly the mains. The question is whether that finding should be supported.

The facts may thus be summarized :—

1. The main—a ten inch main—was laid in 1908 almost three feet six inches below the surface of Pulteney Street. It was an imported main, and was tested, probably in the foundry in England, to withstand a pressure of about 340 lbs. to the square inch, but it burst under a pressure of 84 lbs. to the square inch.

2. " Dozens of bursts occur in mains every week. On an average quite two dozen a week."

3. The Commissioner has no system of supervision or inspection of the mains ; he relies on the public to report leaks and bursts, and pays rewards to those reporting them.

4. Water was apparent on the surface of the road at 11.15 p.m. on the night of the burst causing the damage in the present case, and the main was obviously then leaking.

(1) (1866) L.R. 1 H.L. 93.
(2) (1857) 27 L.J. Ex. 25.
(3) (1856) 11 Ex. 781 ; 156 E.R. 1047.
(4) (1878) 3 App. Cas. 430.
(5) (1903) L.R. 30 Ind. App. 60.
(6) (1906) A.C. 105.
(7) (1898) 2 Ch. 603.
(8) (1894) 10 T.L.R. 259 ; 70 L.T. 547.
(9) (1886) 2 T.L.R. 308.

H. C. OF A. 1933.

COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATER-WORKS.

Starke J.

5. About 12.30 a.m. a column of water burst from the main, and within a minute or so this burst was reported to the Commissioner's officers.

6. The Metropolitan area is divided into twelve districts, and each has a turncock resident in it. At night each has to attend to two districts.

7. The turncock for the No. 1 district, in which the Pulteney Street main was located, was off duty. He was called on the telephone about 12.40 a.m., and said he was off duty but would communicate with the waterworks yard at Kent Town. He did so, and was informed that a turncock was on his way to the burst.

8. This turncock, who was called to attend to the burst, lived at Norwood, some distance from the scene of the burst. He did not arrive or begin operations until about 1 a.m., and the rush of water was not reduced to a condition of safety until about 1.10 a.m.

In my opinion, there is, on these facts, ample evidence of negligence (*Price* v. *South Metropolitan Gas Co.* (1)), but whether negligence as a fact should be found is another question. The opinion of the learned trial Judge is entitled to much weight, but the facts are not in dispute, and each member of this Court must, I apprehend, form his own independent opinion upon that evidence (*Dearman* v. *Dearman* (2)).

It will not do for the Commissioner to allege that a better system of supervision and inspection is impracticable, because it would cost too much. In an undertaking in which dozens of bursts occur in mains every week, a good deal of supervision and inspection appears to be necessary. But the Commissioner trusts to the public to report leakages and bursts. They are under no duty to do so. The Commissioner takes the risks and must abide by them. In the present instance a reasonable system of supervision and inspection should have led to the discovery of a leaking main in less time than an hour and a quarter, and also to shutting off the water, after the column of water had burst from the main, in less time than half an hour. In my opinion, the Commissioner was guilty of the negligence charged in this case, and the damage complained of was the natural and probable result of his wrongful act.

The appeal should be allowed, and the action remitted for the assessment of damages.

(1) (1895) 65 L.J. Q.B. 126.

(2) (1908) 7 C.L.R. 549.

DIXON J. An outburst of water from the respondent's water main in Pulteney Street, Adelaide, occasioned much damage to the occupiers of neighbouring buildings. The appellants, who suffered in this way, failed in an action against the respondent upon the ground that the respondent had not, by himself or his servants, been guilty of negligence. The first question raised by their appeal is whether proof of negligence is necessary to the plaintiffs' success in such an action. The defendant is an incorporated public authority empowered to supply water and to that end to lay mains under streets. He must distribute a constant supply of water to all persons who are entitled to service from his system and (unless unavoidably prevented) he must maintain a charge of water in all his pipes to which fire plugs are affixed. (See *Waterworks Act* 1882 (S.A.), secs. 8, 12 (v), 18, 36, 37 and 42.) There is no statutory provision preserving a liability for nuisance arising from the conduct or maintenance of the system. In my opinion, it follows from the nature of the defendant's statutory authority that he is not liable for damage caused by an escape of water from his pipes unless he has been negligent, and that proof of negligence lies with the plaintiffs. This appears to me to be established by *Blyth* v. *Birmingham Waterworks Co.* (1); *Green and Haydon* v. *Chelsea Waterworks Co.* (2); *Price* v. *South Metropolitan Gas Co.* (3). (Compare *Charing Cross, West End and City Electricity Supply Co.* v. *London Hydraulic Power Co.* (4) per *Scrutton* J.; (5) per Lord *Sumner*; and *Burniston* v. *Corporation of Bangor* (6).) It may appear unsatisfactory that a water authority should not be responsible unless negligent for damage done by the failure of its mains, but I think that neither principle nor authority sanctions any other conclusion.

Piper J., who tried the action, absolved the respondent from all negligence, either in failing to avoid the outburst, or discovering earlier that it had occurred, or in allowing it to continue. I have no hesitation in agreeing with his Honor's finding that the occurrence of the outburst can be attributed to no want of reasonable care on

(1) (1856) 11 Ex. 781; 156 E.R. 1047.
(2) (1894) 10 T.L.R. 259; 70 L.T. 547.
(3) (1895) 65 L.J.Q.B., at p. 127.
(4) (1913) 3 K.B. 442, at p. 447.
(5) (1914) 3 K.B., at p. 781.
(6) (1932) N.I., particularly per *Andrews* L.J., at pp. 186-188.

H. C. OF A. 1933.

COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATER-WORKS.

Dixon J.

the part of the respondent. But I have less confidence as to the answer to the question, whether, by the exercise of proper diligence on the part of the respondent, the time might not have been shortened during which the discharge of water was received by the plaintiffs' premises. *Piper* J. has made exact findings of the times which are material to this question and these findings are supported by evidence. Water was rising to the surface of the road by 11.15 p.m. It was then obvious that the main was leaking. Within a minute or so of 12.30 a.m. the water ascended in a column menacing the neighbouring premises. At about 1 a.m. a turncock in the respondent's employ arrived and began at once to close the valves in order to stop the water. By 1.10 a.m. the discharge of water had been reduced so that it did no further harm. It is probable that the column at first shot up perpendicularly and that it did not enter the plaintiffs' premises until it assumed, some minutes afterwards, a different direction. The bore of the main was ten inches and the pressure was probably almost 84 lbs. to the square inch. It appears that within the Metropolitan area of Adelaide mains burst upon the average over twenty times a week, but, although worse bursts have been known, none has cast up so thick a column of water, or caused such disaster. What leaks or escapes are comprised in the average of more than twenty a week is not stated. The Metropolitan area is divided into twelve districts for each of which there is a turncock, who knows where the valves are and how to close them. A ten inch main containing water at such a pressure as 84 lbs. to the square inch must be closed gradually and the turncocks are instructed to use care in shutting off any valve and not to do so too rapidly. The ten minutes occupied, between 1 and 1.10 a.m. in the process of reducing the discharge of water was not shown to be excessive. The question is rather whether the process of shutting off the water would not, if proper precautions had been adopted, have commenced at an earlier time so that some of the damage would have been avoided. No system of patrol is practised for the purpose of finding escapes, but a small reward is given to every member of the public who first reports one, and, among the " emergency telephone calls " shown on the page of the telephone directory, the " Water Supply " office number appears. At night a caretaker attends this telephone, and,

upon the report of any outburst, he telephones to the appropriate turncock. For every two districts one turncock is " on duty " at night. He may sleep at his own home, but must respond to a telephone call. The learned Judge finds that the outburst was reported to the office by telephone " within a few minutes " after the leak became dangerous, which occurred " within a minute or so of 12.30 a.m." The caretaker experienced a little delay in calling the telephone number of the turncock because of the many inward calls he was receiving reporting the occurrence. But by 12.40 a.m. the turncock received the call. He was in bed, but he dressed at once. Against such an emergency he had a bicycle prepared with lamp and keys, and, by this means, he arrived at Pulteney Street by 1 a.m. His house was a mile and a half away. *Piper* J. found that neither caretaker nor turncock was guilty of negligence or delay and no sufficient reason exists for questioning the correctness of this finding. But a serious attack is made upon the sufficiency of the arrangements of the respondent for learning of an outburst and for quickly turning off the water. No very practical suggestion has been made for a means of ascertaining that an escape has commenced other than the existing reliance upon voluntary reports from those who become aware of it, including, of course, the police. The respondent can hardly be expected to establish a systematic patrol of every street at frequent intervals. On the other hand, the respondent's arrangements for quickly turning off the water, after news of an escape is received, are obviously open to improvement. A direct telephone to turncocks, a greater number of them, a speedier means of transportation, and a requirement that, when on duty, they shall be always awake and clothed, are suggestions which throw no very grievous burden on the respondent, and would, no doubt, lead to an earlier cessation of such a water spout as damaged the plaintiffs' premises. But it does not follow that failure to adopt these expedients amounts to negligence. The respondent is called upon only to take reasonable precautions to avert damage to others, which, otherwise, is likely to arise from his undertaking. Whether reasonable prudence to prevent harm to others dictates such measures is a question of fact depending upon various matters of degree, of which the nature of the consequences to be apprehended from their

H. C. OF A. 1933.

COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATER-WORKS.

DIXON J.

omission is, no doubt, the chief. It must be remembered that quickness in shutting off the water after warning has been received goes in this case, and will in most cases go, to reducing the extent and not to the avoidance of damage. The question, which those in charge of a water supply undertaking might fairly put, is what likelihood is there of occasions arising when in the amount of time saved by the suggested improvements any important amount of additional damage will be done? The answer probably is to be found in experience of the nature, frequency, and behaviour of outbursts in the system and the character of the damage done thereby. The only evidence elicited on these subjects is that already stated and the true significance of that is obscure. No evidence of the precautions practised in other undertakings was given.

In the present case, if all the improvements I have enumerated had been introduced into the respondent's arrangements, it seems doubtful whether as much as ten minutes would have been saved in the period during which the water was flowing. The parties wisely arranged to postpone the issue of damages until that of liability was decided, and it, therefore, does not appear what additional damage could be ascribed to such an interval of time.

Upon the whole of the evidence, I have come to the conclusion that the finding of *Piper* J. upon this issue should stand.

I think the appeal should be dismissed.

EVATT J. On the night of October 15th, 1931, there was a fracture of a water main controlled by the respondent, and situated within the city of Adelaide. By 11.15 p.m. water was escaping from the main. It attracted the attention of a night-porter from the Adelaide hospital, who was on his way home. Unfortunately, he made no report of the occurrence, and the leak continued until a column of water began to rise from the main. By 12.30 a.m. the leak had become dangerous to the adjoining properties. The burst was reported to the respondent's offices by telephone within a few minutes after 12.30; but it was not till about 1 a.m. that a turncock arrived and began operations to prevent damage. The rush of water was not reduced from a condition of danger to the properties until about 1.10 a.m.

The learned Supreme Court Judge came to the conclusion that—

> "the defendant was not negligent in any respect—(*a*) in or about the provision or laying of the main; (*b*) in not maintaining any inspection for or which would lead to early discovery of leaks; (*c*) in relying on the public to report leaks; (*d*) in not reducing the pressure at about 10 p.m.; (*e*) in not knowing of the leak before about 12.40 p.m.; (*f*) in not having shut off water from this main sooner than it was (1) after the leak began or (2) after it was reported."

I agree that there is no evidence of any negligence under head (*a*), and the finding in that respect cannot be questioned. As to head (*d*) I also agree that his Honor's finding was correct. The other heads of negligence may be considered together.

The question is dependent to a large extent upon contingencies known by the Commissioner to be within the range of reasonable possibility.

It appears that within the metropolitan area of Adelaide

> "the bursting of mains somewhere or other is very frequent—on an average there are quite two dozen bursts every week. Ordinarily the water escapes from a burst main without doing any damage, though 'many worse bursts' than the one in this case have been known but 'not so disastrous.' In the present case the hole was slightly on the buildings side of the pipe and consequently a strong jet of water was directed high up and towards the plaintiff's premises. 'A column as thick as happened here' had not been known before."

In my opinion, the evidence clearly establishes that the mains of the city of Adelaide were in such a condition that bursts of water from them might be expected at any hour of the day or night. I do not think that the Commissioner's position is strengthened in any way by the fact that such an injury to property as was here proved would occur very seldom. Damage of some kind to adjoining property was extremely likely if leaks and bursts were not stopped with reasonable expedition.

What precautions were taken to prevent damage by escape of water from broken mains? The answer is that

> "the defendant has 'no system by which the escape of water can be ascertained other than by the reports of members of the public.' A reward of 5s. is paid to a person—the first I suppose—reporting an escape. Report can be made by telephone and the Waterworks Office at Kent Town is in the 'emergency' list in the telephone directory. The Metropolitan area excluding Port Adelaide is divided into twelve districts and each has a turncock resident in it. At night one has to attend to two districts, each being off night duty in alternate weeks. On a burst becoming known a turncock proceeds to the spot."

It is clear that to rely upon the public to report leaks is very unsatisfactory unless reasonable steps are taken by the Commissioner

H. C. OF A. 1933.

COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATER-WORKS.

Evatt J.

to invite the public to report leaks as a matter of moral duty and also to make known the fact that a reward will be given to those reporting. It is notorious that many people are slow to assume the responsibility of making reports unless some advice or encouragement is given to them to do so. In the present case, the night-porter who saw the leak at 11.15 p.m. had, upon two previous occasions, reported leaks. But not only had he received no reward on either occasion. He also said :—

> "It is news to me to know there is any reward for giving information of such things."

There is no intimation in the telephone book that a reward is offered to those who report leaks or bursts.

On the whole I consider that a person in the position of the defendant who chose to rely on members of the public informing him of the presence of leaks or bursts from mains, should have taken steps to bring before the public the fact of such reliance by giving such fact, and also the fact of the existence of rewards, reasonably adequate publicity. If a system of control had existed by which substantial reductions in pressure could at once be detected and steps taken to avoid damage by bursts, the situation might be very different. But no such system of detection existed. It is reasonably clear (1) that no steps were taken to inform the public that the Commissioner was dependent upon them for information as to leaks or bursts, and would indemnify or reward those supplying such information. (2) That had reasonable steps been taken, Cliff, the night-porter, would certainly have reported the leak shortly after 11.15 p.m., and all damage to the plaintiff's property would have been prevented. These two findings establish the defendant's liability in this case.

I am of opinion that the answer to the findings (*c*) and (*e*) of the learned Supreme Court Judge is this, that, assuming that it was reasonable for the Commissioner to rely upon reports from members of the public, it was quite unreasonable to omit the precautions of (1) making it known to the public that the Commissioner was depending upon them to co-operate with him in avoiding damage to property by immediately reporting leaks, and (2) making known to the public the fact of the reward so that those who might not

otherwise go to the trouble and expense, small though it was, of telephoning outbreaks, should be persuaded to do so.

In the circumstances I do not find it necessary to determine whether the Commissioner was guilty of negligence in not providing a more adequate system of sending officers to shut off the water after the bursts had become known. It is perfectly clear, however, that considerable damage would have been averted had there been within each district an officer always available to deal with bursts.

I think that the appeal should be allowed and judgment entered for the plaintiff, with damages to be assessed.

McTIERNAN J. The question whether the respondent is liable for the damage caused by the spout of water which issued from the fracture in the respondent's main into the appellants' premises, without proof of negligence on the part of the respondent, turns upon the provisions of the *Waterworks Act* 1882 of South Australia. Mr. *Cleland* contended for the appellants that the respondent is liable in nuisance and in trespass for all this damage. His submission was, in effect, that the statute authorized the respondent to charge its mains in order to supply water to the people in the water district of Adelaide and for other purposes mentioned in the Act, but not to put down water mains to be used for throwing water into the appellants' premises. What happened to the appellants' premises was not, it was contended, the necessary consequence of the authority which was given to the respondent by the statute. Mr. *Cleland* abandoned the contention which he made in the Court below that the proviso to sec. 23 extended to preserve the liability of the respondent to an action for nuisance in respect of the matters with which the present appeal is concerned. The Act does not provide that the respondent shall not be exempt from an action for nuisance caused by the maintenance or use of water mains and pipes for the supply of water according to the directions of the Act. Thus it becomes necessary to examine the provisions of the Act to determine whether it can be relied upon by the respondent as a statutory indemnity against an action for the injury done to the appellants.

The *Waterworks Act* 1882 authorizes the respondent Commissioner, who is thereby made a Corporation, (*inter alia*) to construct, maintain

H. C. OF A. 1933. COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATER-WORKS. McTiernan J.

and extend reservoirs and waterworks and to lay mains and pipes in the streets and other places for the purpose of supplying water to or in any water district (sec. 12). The Governor may declare any district or town to be a water district (sec. 5). The main burst in the district of Adelaide which is made a water district by sec. 4. The Act requires the Commissioner to distribute in each water district a constant supply of water to all persons in streets where mains have been laid, who are entitled to be supplied (sec. 37). He is also required to keep all mains and pipes which are equipped with fire plugs charged with water for putting out fire, and to supply water to the Corporations of the City of Adelaide and Port Adelaide respectively for watering the streets and other public purposes in those localities (secs. 36, 33). This duty is continuous except when its fulfilment becomes impossible for the special reasons specified in these sections respectively.

The charging of the main in question with water was therefore legalized by the statute. But the respondent did not become liable as an insurer on account of the escape of the water to the appellants' premises. In carrying out the duty imposed upon him by the Act the respondent did not charge the main with water at his peril. This principle is illustrated, for example, in *Snook* v. *Grand Junction Waterworks Co.* (1) and *Green and Haydon* v. *Chelsea Waterworks Co.* (2). The cause of the damage which the appellants suffered was the use of the main by the respondent in carrying out the legislature's mandate to him. The pouring of the water into the appellants' premises was therefore neither an actionable nuisance nor trespass and their cause of action must be founded on negligence. In *Charing Cross Electricity Supply Co.* v. *Hydraulic Power Co.* (3), Lord *Sumner* speaking of the duty cast upon the defendant in that case by the statute under which they carried on their undertaking said :—" The Act of 1871 incorporated the undertakers and recited that they proposed to carry on an undertaking that was beneficial to the public. They are not incorporated as waterworks supply companies with an obligation to supply water to the public, but they are given powers of taking water and of

(1) (1886) 2 T.L.R. 308. (2) (1894) 10 T.L.R. 259 ; 70 L.T. 547.
(3) (1914) 3 K.B., at p. 781.

laying mains without being under obligation to keep their mains charged with water at high pressure, or at all." Lord *Sumner* added (1): "This serves at once to distinguish the class of cases of which *Green* v. *Chelsea Waterworks* (2) was an illustration, where the principle is that if the Legislature has directed and required the undertaker to do that which caused the damage, his liability must rest upon negligence in his way of doing it, and not upon the act itself." This principle applies to the present case. The respondent therefore is not liable to the appellant in nuisance or trespass for the damage which he suffered. (See also *Burniston* v. *Corporation of Bangor* (3).)

The question whether the respondent was negligent in the way of carrying out its duties under the statute was also answered in the negative by *Piper* J. who tried the action. I agree with that finding. The learned Judge expressed his finding on this question in these terms: "I find that the defendant was not negligent in any respect —(*a*) in or about the provision or laying of the main—(*b*) in not maintaining any inspection for—or which would lead to—early discovery of leaks—(*c*) in relying on the public to report leaks—(*d*) in not reducing the pressure at about 10 p.m.—(*e*) in not knowing about the leak before about 12.40 p.m.—(*f*) in not having shut off water from this main sooner than it was—(1) after the leak began or (2) after it was reported." There is evidence to support all these findings. Those numbered (*e*) and (*f*) however are more open to attack than the others. The delay which occurred before the respondent became aware of the leak and before the water was turned off after the respondent became aware of it, may suggest some imperfections in the system for averting or diminishing damage likely to be caused by water issuing through a fracture in a main. But I am not satisfied that the precautions taken were not reasonably adequate to guard against such a danger. It would be unreasonable to suggest that a system which involved any delay at all in turning off the water would not excuse the respondent from an allegation of negligence. It is difficult to find the dividing line between unavoidable and unreasonable delay. If it be suggested that more than one

(1) (1914) 3 K.B., at pp. 781, 782. (2) (1894) 10 T.L.R. 259; 70 L.T. 547.
(3) (1932) N.I. 178.

H. C. OF A. 1933.

COX BROS. (AUSTRALIA) LTD. v. COMMISSIONER OF WATER-WORKS.

McTiernan J.

turncock should have been on duty, or that his station was too remote, or his means of transport too slow, how many turncocks and how many more stations or what faster means of transport should have been provided to convert respondent's arrangements to deal with a leaking main into prudent and reasonable precautions? In *Blenkiron* v. *Great Central Gas Consumers Co.* (1) *Cockburn* C.J. in addressing the jury said (2) :—" And those who carry on operations dangerous to the public are bound to use all reasonable precautions —all the precautions which ordinary reason and experience might suggest to prevent the danger. It is not enough that they do what is *usual* if the course ordinarily pursued is imprudent and careless; for no one can claim to be excused for want of care because others are as careless as himself; on the other hand, in considering what is reasonable, it is important to consider what is usually done by persons acting in a similar business." No evidence was given as to the precautions usually adopted by other authorities with duties akin to those of the respondent. There is no evidence of any prior occurrence in Adelaide which suggested any shortcoming in the respondent's system for receiving information about the bursting of a main and having the water turned off. Whether the arrangements made by the respondent have any defect which deprives them of the quality of reasonable and prudent precautions depends upon the character of the danger to be averted, the experience of the past, what arrangements are regarded as usual in such a case to guard against the danger and general considerations of feasibility.

The learned Judge did not direct himself by any wrong principle in arriving at the findings which he numbered (*e*) and (*f*) and they are warranted by the evidence. I see no reason for disturbing any of his findings on the question of whether the respondent was negligent.

In my opinion, the appeal should be dismissed.

Appeal dismissed with costs.

Solicitors for the appellants, *Scammell, Hardy & Skipper.*

Solicitor for the respondent, *Hannan*, Crown Solicitor for South Australia.

H. D. W.

(1) (1860) 2 F. & F. 437; 175 E.R. 131.

(2) (1860) 2 F. & F., at p. 440; 175 E.R., at pp. 1132, 1133.