

## CORBIN CABINET LOCK Co. v. EAGLE LOCK Co.

(Circuit Court, D. Connecticut. November 15, 1892.)

No. 519.

## 1. PATENTS FOR INVENTIONS—ANTICIPATION—TRUNK LOCKS.

In letters patent No. 285,916, issued October 2, 1883, to Frank W. Mix, for a trunk lock, the first and fifth claims both cover the combination of a hasp plate, a hasp hinged thereto, the keeper plate, the lock bolt or lock mechanism, and the dowel pin and socket, or similar means of interlocking the plates. The first claim includes, in addition, a spring constantly pressing the hasp outward. *Held*, that these claims were anticipated by the Star lock, which has all these elements; and it is immaterial that it differs from the patented article in that the lock is not mounted upon the hasp or hasp plate, and that there is no holding protection and socket other than the staple, which takes directly into the lock proper, and is engaged by the lock bolt, for these features are not included in such claims.

## 2. SAME—COMBINATION—PRIOR ART.

The first claim of letters patent No. 337,187, issued March 2, 1886, to Frank W. Mix, for a trunk lock, covers "a hasp plate and a lock plate, the adjacent edges of which are constructed to interlock with each other, in combination with a hasp hinged to the hasp plate, and provided on its free end with a lock, which is received in a cup or frame in the lock plate, substantially as set forth." *Held*, that as all these elements were old, the claim is too broad to be sustained in view of the prior state of the art, as shown by the "Star" lock; the Jones patent No. 44,869, November 1, 1864; the Utting patent, No. 62,453, February 26, 1867; the Terry patent, No. 107,133, September 6, 1870; the Hillebrand & Wolfe patent, No. 120,067, October 17, 1871; the Haskell patent, No. 214,252, April 15, 1879; and the Crouch patent, No. 285,180, December 7, 1880.

## 3. SAME—UTILITY.

The second claim covers a hasp plate "secured to the cover of the trunk," and a lock plate "secured to the body," the two plates extending to the edges of the cover and body respectively, and the lock plate having a cup or frame for the reception of the lock, which is carried on the free end of the hasp, the hasp being "hinged to the hasp plate a considerable distance above its lower edge." The claim concludes with the words "substantially as set forth," and in the specifications the hasp is described as being "spring-pressed." *Held*, that the claim must be limited by this element and by the further element that the cup shall be so shaped as to receive and protect both the hasp lock and the hasp; and that, as thus restricted, giving due weight to the presumption of validity arising from the issuance of the patent, the claim is valid as producing a new and useful result.

## 4. SAME—UTILITY.

When the existence of invention is doubtful, the fact of utility should have great weight in favor of the patent. *Smith v. Vulcanite Co.*, 93 U. S. 486; *Washburn & Moen Manuf'g Co. v. Beat' Em All Barbed Wire Co.*, 12 Sup. Ct. Rep. 143, 143 U. S. 275; *Gandy v. Betting Co.*, 12 Sup. Ct. Rep. 593, 143 U. S. 537; and *Topliff v. Topliff*, 12 Sup. Ct. Rep. 825, 145 U. S. 156,—followed.

In Equity. Bill for infringement of patents. Decree for complainant.

*Mitchell, Hungerford & Bartlett*, for complainant.

*Wilmarth H. Thurston*, for defendant.

TOWNSEND, District Judge. This is a suit in equity, brought for the infringement of letters patent No. 285,916, dated October 2, 1883, and No. 337,187, dated March 2, 1886, for improvements in trunk locks, originally granted to Frank W. Mix, and by him assigned to the complainant. The defenses as to both patents are anticipation and want of patentable invention.

The object of the invention in both patents is to make the lock serve the double purpose of locking the trunk and of preventing lateral move-

ment of the cover, and at the same time providing a cheap, strong, and efficient lock. Lateral displacement of the trunk and cover is prevented by providing at the meeting edges of the hasp plate and lock plate a dowel pin in one and a corresponding socket in the other, in addition to the hasp and locking mechanism. Only the first and fifth claims of patent No. 285,916 are claimed to be infringed. They are as follows:

"(1) In a trunk lock, the combination of the hasp plate, the hasp hinged thereto, the spring arranged to press upon the hasp, with a constant tendency to throw it outward, the keeper plate, the dowel pin and socket, and the lock bolt for locking the hasp into engagement with the keeper, substantially as described." "(5) In a trunk lock, the combination of the hasp plate, the hasp hinged to said hasp plate, the keeper plate, the lock bolt for locking the hasp into engagement with the keeper, and the dowel pin and socket at the meeting edges of said two plates, all combined substantially as described, and for the purpose specified."

The claims in patent No. 337,187 are as follows:

"(1) In a trunk lock, a hasp plate and a lock plate, the adjacent edges of which are constructed to interlock with each other, in combination with a hasp hinged to the hasp plate, and provided on its free end with a lock, which is received in a cup or frame in the lock plate, substantially as set forth. (2) A trunk lock, consisting of a hasp plate adapted to be secured to the cover of the trunk, and a lock plate adapted to be secured to the body of the trunk, and constructed with a cup or frame for the reception of the hasp lock, the hasp plate and lock plate constructed and arranged to extend to the meeting edges of the cover and body of the trunk, and the hasp plate provided with a dowel or extension that engages in a socket or recess in the lock plate, in combination with a hasp hinged to the hasp plate a considerable distance above its lower edge, and provided on its free end with a lock, substantially as set forth."

Each of these claims includes the following elements: (1) The hasp plate; (2) the hasp hinged thereto; (3) the keeper plate or lock plate; (4) the lock bolt or lock mechanism; (5) the dowel pin and socket, or similar means of interlocking the plates. Each claim implies that the hasp plate and keeper or lock plate shall be so applied to the trunk cover that their edges shall meet when the trunk is closed. The first claim of patent No. 285,916 has an additional element, viz., the spring arranged to press upon the hasp with a constant tendency to throw it outward.

The defendant, in order to prove lack of patentable invention in view of the prior art, has put in evidence nine patents, viz.: The Jones patent, No. 44,869, November 1, 1864; Uitting patent, No. 62,453, February 26, 1867; Gaylord patent, No. 93,078, July 27, 1869; Terry, No. 107,133, September 6, 1870; Hillebrand & Wolfe, No. 120,067, October 17, 1871; Rivers, No. 140,308, June 24, 1873; Rice, No. 188,950, March 27, 1877; Haskell, No. 214,252, April 15, 1879; Crouch, No. 235,130, December 7, 1880. Also the exhibit, "Star lock," which it is admitted was manufactured before complainant's patents. Defendant also claims that the first patent in suit anticipates the second. Nearly all these patents, including the earlier ones, have the hasp plate, the hasp hinged to the hasp plate, the keeper or lock plate, and the lock

bolt or lock mechanism. The Uitting and Terry patents have springs arranged between the hasp and its plate, the constant tendency of which is to throw the hasp outward. The Rice patent has a spring arranged to throw and keep the hasp in constant engagement with its keeper. The Hillebrand & Wolfe patent and the Rivers patent have the edges of the hasp plate and the keeper plate arranged so as to meet, and both of them have dowels and sockets for interlocking and preventing lateral movement of the trunk cover. It is admitted that it is old to make dowels and sockets on a trunk and cover, separate from the lock, so as to prevent lateral movement. The Haskell patent is for a trunk-lock guard. This is shown in two parts closely surrounding a trunk lock, which has the hasp plate and hasp, and a cylindrical lock on the free end of the hasp. The guard is fitted with dowels and sockets to prevent lateral displacement of the trunk and cover. The hasp plate is affixed to the trunk, and the keeper plate to the cover. The lock is not particularly described. The specification speaks of the class of locks as well known.

Defendant claims that complainant's patent No. 285,916 contains only an accretion of well-known devices, which operate in the same manner, when combined in defendant's structure, as they do when inserted separately, and that there is merely the substitution of one well-known device for another; thus, if in the Uitting and Terry patents the edges of the hasp plate and keeper plate were arranged so as to meet, and they were provided with dowels and sockets, as in the Hillebrand & Wolfe patent and the Rivers patent, they would embody the said first and fifth claims of complainant's patent; so, if in the Hillebrand & Wolfe patent and the Rivers patent there were substituted hinged hasps, pressed by a spring, as in the Uitting and Terry patents, they would meet these claims. The device in the Haskell patent may be modified so as to embody the claims of the patent No. 285,916 by casting the lock there shown and its patented guard integral, instead of in separate pieces. The Star lock, which was made prior to complainant's patents, has a hasp plate and a hasp hinged thereto; a keeper plate or lock plate, with a socket, into which the hinged hasp with its staple fits, so that the hasp and the keeper plate present a smooth exterior surface when the trunk is locked; a lock bolt to hook and hold the hasp; two dowel pins and sockets for interlocking the plates; and a spring arranged to press upon the hasp with a constant tendency to throw it outward. The edges of the hasp plate and keeper plate meet when the trunk is closed. Complainant's expert and complainant's counsel claim that this differs from complainant's invention "in the fact that the lock is not mounted upon the hasp or hasp plate, and in the fact that there is no holding protection and socket other than the staple, which takes directly into the lock proper and is engaged by the lock bolt." These points of difference do not seem to be included in the first and fifth claims of patent No. 285,916. These are the only claims of that patent which are applicable to the construction shown in Fig. 8 and Fig. 10 of the drawings, and must be so construed as to include the structures shown in

those figures. Defendant's expert admits that in the structures shown in said figures the lock is not mounted on the hasp. In my opinion, the Star lock anticipates the first and fifth claims of patent No. 285,916.

Both claims of patent No. 337,187 include, in addition to the five elements before mentioned, common to both patents, the lock or lock mechanism arranged on the free end of the hasp, and a cup or frame in the lock plate to receive the lock; and the second claim of patent No. 337,187 further provides that the hasp plate, with its dowel, shall be adapted to be secured to the body of the trunk, and that the hasp shall be hinged to the hasp plate at a considerable distance above its lower edge. All the elements combined in patent No. 337,187 were old and well known. No one patent appears to have all the elements arranged in just the same way. Defendant's counsel again claims with much force that this patent also merely presents an accretion of well-known devices; that, as locks with dowels and sockets were well known, and locks with hinged hasps carrying their locking mechanism on the free end of the hasp, and having a cup in the lock plate to receive the lock, were well known, and that, as the operation of the dowel and socket were not connected with the operation of the lock mechanism, and the dowel and socket could be, and had been, placed on different parts of the trunk, there was no invention in the making of the particular lock described in the patent. The Jones patent, the Terry patent, the Haskell patent, and the Crouch patent show or imply a lock mechanism hinged to the hasp, and received in a cup or frame in the lock plate. The Crouch lock seems to have all the elements of the first claim of complainant's patent No. 337,187, except the dowel and socket, which are found in former patents. In the Haskell patent, the guard, combined with the keeper plate, as shown in the drawings, makes a cup or socket for the lock. If a cylindrical lock on the hasp is substituted for the hasp and lock mechanism on the lock plate, and a dowel and socket added, in the Uitting patent, it will embody all the claims of the second Mix patent. Unless the lock in the second Mix patent is to be construed as necessarily cylindrical, the Terry patent, by the addition of a dowel and socket, would embody all the claims of this patent. In the Hillebrand & Wolfe patent, the substitution of a hinged hasp, spring-pressed, with a cylindrical lock on the free end, for the hingeless hasp shown in the patent, would satisfy the first claim of patent No. 337,187, and if such hasp were hung somewhat higher on the hasp plate it would satisfy the second. If the exhibit Star lock were modified by substituting a cylindrical lock on the free end of the hasp for the staple of the hasp and lock mechanism of the plate, it would embody the first claim of the patent under consideration; and, if such hasp were hinged on the hasp plate, it would embody the second. In a case like this, if any claim is to be held valid, it must be because the article produced is shown to have a special utility, and to answer the requirements of its department more fully than anything that has gone before; and the monopoly should even then be restricted as closely as may be to the improvement actually shown. The first claim of patent No. 337,187

appears to be too broad to be held valid in view of the prior art as shown in this case.

The second claim is more closely limited. The hasp plate, with the dowels, must be on the cover, and the keeper plate, with the sockets, must be on the body, of the trunk. This seems to be the most convenient form. The hasp, which the specification describes to be "spring-pressed," and which should be so limited, is to be hinged a considerable distance above the edge of the hasp plate. The lock must be mounted upon the free end of the hasp, and must be limited to a cylindrical form. Made in this way, the lock seems to combine more advantages, and have greater utility, than any that has preceded it. The question of utility is steadily coming into greater prominence as a test of invention. Where an art has grown by successive steps, the inventor who supplies the last requisite to making a better article than his predecessors is now allowed the benefit of that last step, even though it seems to be a short one. There seems to be no doubt of the utility of this invention; at least the defendant is hardly in a position to dispute it. Defendant's counsel claims that it is not enough that a device has grown into extensive use, but that it must also have displaced previous devices, in order to raise any presumption of the utility entitled to be considered in determining the question of patentability. This device seems to have displaced former devices in the manufactory of the defendant, at least, as well as in that of the complainant, and large numbers have been made and sold both by complainant and defendant. Complainant's expert says, and his counsel quotes:

"The Mix invention, as embodied in the second Mix patent, consists of a complete reorganization of the Crouch type of lock, whereby it may be successfully mounted upon the trunk lid, and co-operate with the keeper upon the trunk body, and all the parts be adequately protected, and the lock-carrying hasp be spring-pressed, so as to hold it normally slightly in front of the cup. To this end he did not hinge the hasp to the extreme end of the hasp plate as in the prior Crouch and Excelsior constructions, but he carried the hinge, as the patent says, 'a considerable distance above the lower edge,' so that the lock case upon the free end of the hasp would extend below the valance only far enough to engage a cup plate, which was mounted so high upon the body of the trunk as to extend to the meeting edges of the cover and body of the trunk."

He also so shaped the cup plate that it would both receive and shield the lock case and the hasp carrying the lock case.

The shaping of the cup plate or lock plate so as to receive and shield the hasp carrying the lock case, as well as the lock case itself, is put forward as an important point in complainant's case. I think this element should be so limited. With the respective elements limited as above stated, I think that the second claim of patent No. 337,187 ought to be sustained. So far as appears from the evidence, this lock is superior to, and combines more advantages than, any which has preceded it. On the whole, it seems to me to be so far superior to the others which have been brought to my notice as to constitute a new and useful result, and to come within the scope of the decisions which hold that

the fact that the new combination of old elements produces a new and useful result is strong evidence that such combination is the product of inventive ingenuity, and not merely an aggregation of devices. The doctrine that utility should have great weight in favor of the existence of invention when the question is doubtful is fully sustained by the supreme court. *Smith v. Vulcanite Co.*, 93 U. S. 486; *Washburn & Moen Manuf'g Co. v. Beat 'Em All Barbed Wire Co.*, 143 U. S. 275, 12 Sup. Ct. Rep. 443; *Gandy v. Belting Co.*, 143 U. S. 587, 12 Sup. Ct. Rep. 598; *Topliff v. Topliff*, 145 U. S. 156, 12 Sup. Ct. Rep. 825. The doctrine of these cases is carefully considered and practically applied to its full extent in *Watson v. Stevens*, 60 O. G. 1884, 51 Fed. Rep. 757. I do not think that the doctrine that an accretion of old devices, or the substitution of one well-known device for another, does not involve invention, applies any more strongly in the present case than in the case last cited. As in that case, the considerations on each side seem to me to be very closely balanced. The presumption arising from the fact that the patent office issued the patent is to be allowed due weight. The second claim of patent No. 337,187, limited as above stated, is sustained. Let there be a decree for an injunction and an accounting.

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THE OLYMPIA.

THE JOHN SHERMAN.

THE OLYMPIA v. THE JOHN SHERMAN.

(District Court, E. D. Michigan. June 2, 1891.)

1. COLLISION—STEAMER AND TOW—PARTING OF TILLER ROPE—INEVITABLE ACCIDENT.

The steamer Olympia, on approaching a steamer with two lumber schooners in tow in the Detroit river, at full speed, (about 10 miles an hour,) put her helm hard astarboard in order to pass, but the tiller rope parted. The engines were immediately reversed, and everything possible done, but the momentum of the Olympia carried her against one of the tows, and sunk her. The tiller rope was of suitable size; had been purchased of a reputable dealer at a price which should have secured a good article; had been in use but two years, while the usual use is from three to five years; and had been thoroughly inspected just before entering the river. It was examined by experts at the hearing, and no flaw or crystallization discovered. The steering gear was worked by steam engines capable of putting severe strains upon the rope, but the use had not been exceptionally severe. *Held*, that the accident was inevitable, and the steamer not liable therefor.

2. SAME—STEAM STEERING GEAR.

The use of steering apparatus worked by steam engines, geared to a worm screw, puts such violent and sudden strains upon the machinery that when a collision results from its sudden collapse it is not enough to exempt the vessel from liability that the material was originally of the best quality, and that its service, dimensions, and workmanship warranted a reliance on its sufficiency, but these conditions must be supplemented by the closest attention to their preservation.

3. SAME—COSTS.

Since only judicial inquiry could have brought out the evidence showing that the steamer was not at fault, the libelants were justified in bringing suit, and costs should not be allowed to the claimants.

In Admiralty. Libel *in rem* by the owners and insurers of the schooner John Sherman against the steamer Olympia for collision. Libel dismissed.

*Moore & Canfield*, for libelants.

*H. D. Goulder*, for claimants.

SWAN, District Judge. This suit is brought by the owner and insurers of the schooner John Sherman to recover for the loss of that vessel, which was sunk by collision with the steamer Olympia, in the Detroit river, about 4 o'clock p. m. of May 8, 1891. The Sherman was in tow and next astern of the steamer Lowell, which had also in tow, astern of the Sherman, the schooner Roberts. The Lowell and her consort, all lumber laden, were bound from Cheboygan, Mich., to Toledo, Ohio, and were running about eight miles per hour at the time of the collision. Their course down the river took them well on the Canadian side of mid-channel, or about one third of the width of the river from the Canadian channel bank, and at the time of the collision the Lowell and her tow were below Walkerville, Ont., which is about one and a quarter miles above the foot of Woodward avenue, Detroit. The Detroit river at the place of collision is about half a mile wide. Neither vessel of the tow was carrying sail. The Olympia, a steamer of 2,000 tons (gross) register, 276 feet long, and 41 feet beam, drawing 14 feet 2 inches, laden with 1,850 tons of coal, and bound from Cleveland to Duluth, came up the river on the usual course until she had rounded Sandwich point, below Detroit, when, for the purpose of picking up the marine reporter, she edged over towards the American side, passing Woodward avenue at reduced speed, about three or four lengths from the Detroit dock line, or about as far from the American side as the Lowell and her tow were from the opposite bank. Just after passing outside the revenue cutter Fessenden, which lay a few hundred feet above the foot of Woodward avenue, the marine reporter's line was cast off, and the "All right" signal was given to her engineer, and the Olympia put at her accustomed full speed, about 10 miles per hour. When this signal was given, she was heading up the river, having Belle Isle a little on her starboard bow. To put her on her course to pass up the Canadian channel to the eastward of Belle Isle her wheel was ported, and she swung until she had brought Belle Isle on her port bow. When this was accomplished, the Olympia and Lowell had not quite got abreast of each other. The Olympia was then heading under the stern of the Roberts, the Lowell's second vessel. To preserve this course, and to check the swing of the steamer, her wheel was starboarded, but failed to break her swing. Seeing this, her master ordered it hard astarboard, in obeying which the tiller rope slackened on the barrel of the wheel, indicating unmistakably that the steering gear had given way by the breaking of the tiller rope. This was seen by the master of the Olympia from his post on top of the pilot house, just as he gave the order to hard astarboard. He at once signaled to the engineer to stop and back, which was promptly done, and instantly followed those orders by

sounding three or four alarm signals to the Lowell and her tow, which were then three or four lengths of the Olympia away. The effect of reversing the Olympia was to swing her stern to port and her bow to starboard. Laden as she was, her headway was such, despite the power of her engines working astern to their full capacity, as to carry her across the current, until, stem on, she struck the John Sherman, which was about 500 feet astern of the Lowell, on the starboard side, between the main and mizzen rigging, cutting into her four or five feet, the force of the blow lifting the port side of the schooner, springing her deck, and throwing her masts out of line. The wheel of the Sherman was put hard astarboard upon the Olympia's alarm whistles, but her position in the tow prevented any effectual maneuver to get out of the way. The answer of the claimant charges the Sherman with contributing to the collision by neglecting to make due effort to avoid the Olympia, when apprised of her helpless condition, either by swinging off to port, or by casting off her towline, but the proof is satisfactory that, placed as she was, the Sherman was as helpless as the Olympia, and that such effort as was possible was made to escape. The collision was indeed inevitable when the Olympia's tiller rope parted.

The Olympia was built in 1889, and had been running less than two seasons at the time of this disaster. She was equipped with a steam steering gear of the most approved pattern, and her tiller rope was of charcoal iron wire, one inch in diameter, the size employed on steam vessels of her tonnage. She had also a hand wheel, and was provided with relieving tackles, adjustable to the tiller in from three to five minutes. The ordinary full watch on deck and at the engines were in charge of her navigation, and their competency is unquestioned. The faults alleged against the Olympia are:

"(1) In not keeping her course, and passing the said schooner and the tow, in which she was on the port side, and as she might safely have done, and in leaving said course, swinging to starboard, and towards said schooner and said tow. (2) In not promptly stopping, reversing, or checking her speed after she had turned towards said tow, and when she was approaching said schooner, so as to involve risk of collision."

The answer, among other defenses, charges that the Sherman was weak and unseaworthy, and that the consequences of the collision were in large part owing to her condition, and not to the force of the impact. The main defense is that the collision—

"Was caused by unavoidable accident, which could not be foreseen, and against which human prudence could not guard; that the cause of the steering gear failing to work was ascertained to be the breaking of the wire wheel rope aft on the starboard side; that it was a wire rope, of suitable and ample size, which had been bought at a price which should have insured the best material, and was sold and represented to the boat as of the best material for that purpose, and was properly rigged and fitted in the most approved manner; that it had been overhauled in Cleveland the day previous to this collision, and her steering gear had been put, so far as human knowledge and ingenuity could do so, in perfect condition; and that, according to a standing rule, the mate had looked over and examined the steering gear, including



this rope, before the vessel entered the Detroit river, but a few hours before the accident, on which occasion he found everything apparently in good order and condition."

The answer further denies all fault, negligence, and omission by the claimant or the officers and crew of the Olympia in her equipment and navigation.

The proofs acquit both the Sherman and the Olympia of the omission of any measure which would have averted or mitigated the collision after the breaking of the latter's wheel rope. The collision being admitted, the primary inquiry is whether its cause was any defect in the equipment of the Olympia against which due care and skill could have provided. If the defense of inevitable accident is sustained, it will dispense with the necessity of weighing the proofs as to the condition of the Sherman, as a factor in the extent of the damage.

It appears from the proof that on August 26, 1890, the Olympia ran onto the Boston shoals, at the mouth of the Detroit river, and that the accident was caused by the parting of this same tiller rope. The rope was examined, and found to have parted in the starboard forward block, through which it led, and that the break was occasioned by the warping of the block, which was set in close proximity to the steam pipe leading to the forward part of the boat. The effect of the heat was to warp the block from its proper horizontal position, and thereby the tiller rope, under the power of the steering engine, was brought against the pin of the sheave, and parted. The evidence shows that a single contract of the pin and the wire tiller rope drawn by the steering engine was sufficient to cut it. This break was at once repaired. The chafed portion of the tiller rope was cut out, it was changed "end for end," and again rove. It was used the remainder of the season,—some three months,—in four or five round trips of Lake Superior, without developing any indication of weakness or defect. On May 7th, the day before the collision, just before departing from Cleveland, the master of the Olympia, for the purpose of bringing into horizontal position the block next to the quadrant on the rudder post, caused a short splice to be inserted in the tiller rope between that block and the block on the starboard quarter. The splicing was done by George Patterson, a competent wire rigger of over 20 years' experience, who had set up this rope on the Olympia when she came out, and he was aided in the work by Bogie, the second mate of the steamer. Speaking of the condition of the tiller rope between the quadrant and the block on the starboard side, (the locality of the break,) Patterson, when asked if in making the splice he thought to examine the rope as to its fitness for splicing, answered: "No, sir; but if the rope had been bad, I could tell that by handling it. I found out the rope was good, and I spliced it. If I had found the rope bad, I would not have spliced it." Bogie testified as positively that it was apparently good, and that he handled it before and after Patterson spliced it, and also examined it at the time and place of the break, but could not learn the cause of its parting. Other witnesses concur that there was no defect which could be seen or detected

by manipulation. The rules prescribed by the owners of the Olympia required the steering gear to be inspected before entering the river in her route, and, in obedience thereto, the first mate, who died before this suit was brought, was sent by the master to make that examination as the Olympia was approaching the mouth of the Detroit river, about three hours before this collision. The mate reported that he had performed that duty, and found the steering gear "all right." The rope was produced at the hearing, identified, and inspected by experts, but nothing was elicited to account for its rupture. The wire was sound, smooth, pliable, without flaws, and of good quality. With the wheel hard over, the forward end of the splice was brought within about a foot of the starboard block aft, no part of the splice traveling on the sheave. The rope parted between the splice and the starboard quarter block. The fag-ends of the break were of unequal length, indicating that the strands had been pulled apart, as if yielding to a violent strain. The tensile strength of a rope of this diameter varies from 30,000 to 35,000 pounds. The effect of strains is to crystallize and weaken the iron. No indication of crystallization was found. There is nothing in the proof impeaching the quality of the material, or explaining the cause of its rupture. It was purchased from reputable dealers, and manufactured by makers of good standing, who customarily tested their wares before putting them on sale. The proofs agree that its size, material, workmanship, and condition assured its fitness and adequacy to its use when originally put in the steamer. The service in which the Olympia was employed was not exceptionally severe. The evidence is undisputed that the life of such a tiller rope may be relied upon for at least three, and generally four or five, years of use, though in view of the facts of this case I am inclined to regard the shorter period as the safer limit. The fact that the break was not in the splice, but in the intact, and apparently sound, portion of the rope negatives any suggestion of connection between this and the disaster of the year before at the Boston shoals; especially since the good condition of the gear is confirmed by its subsequent satisfactory service up to the very day of this collision, and by its present appearance. Had the first mishap been occasioned by any defect in the rope, the aspect of the case would have been entirely different.

We must look elsewhere for the cause of this mischance. The Olympia's steam steerer is worked by double engines of seven horse power, geared to a worm screw. The rapidity with which this force is applied to its work necessarily subjects the tiller rope to violent and severe strains, and the increasing frequency of accidents of this kind to steamers is, in part, at least, chargeable to this powerful and expeditious machinery. Its instantaneous action, though invaluable in sudden emergencies, necessitates the highest vigilance in the inspection and maintenance in perfect order of its connections. The very facility with which it is operated rarely reminds even the experienced mariner of the necessary effect of a great power, so easily put in motion, upon the connections to which it is applied. The error of giving a vessel too much

wheel is corrected apparently by a touch of the hand, but in fact by a power acting with such energy that its effect upon the fabric wrought upon is rarely considered or appreciated. Even with the most competent and experienced wheelmen at the helm, the great and unavoidable wear and strain of the gear, occasioned by the frequent sharp changes of course incident to the navigation of the sinuous and comparatively narrow channels of the waterways between the Great Lakes, crowded, as they are, with a vast commerce, is so natural and necessary a result of the use of machinery working with such power and celerity that the degree of care and skill required to keep it in safe condition in all its parts would be accounted extraordinary were there less need of it. The propriety of insisting upon this measure of diligence in the use and care of this equipment is manifest. It is not enough to exempt a vessel from the consequences of injury to life and property traceable to the sudden collapse of the guiding power that the material was originally of the best quality, and that its service, dimensions, and workmanship warranted reliance upon its sufficiency, unless these conditions are supplemented by the closest attention to their preservation. Ordinary care and skill are relative terms, limited only by the circumstances which invoke them, and the field for their exercise enlarges with the dangerous character of the agency employed. The same considerations which exact from a vessel propelled by steam the utmost care and circumspection in navigation, because of her speed and power, more forcibly require that the machinery for the control of her course shall be equal to that end, so far as reasonable care and skill can make and maintain them. If such care and skill are bestowed in their use and preservation, and an accident occurs, the law gives immunity, regarding it as unavoidable. It is urged that the defense of inevitable accident is not one to be favored. It must be confessed that there is a popular prejudice against it. There is a seeming hardship in leaving an injured party, innocent of fault, to bear the consequences of a misfortune, without redress against the person or thing causing the loss by pure fortuity; yet the argument against this defense loses sight of the fact that the imposition of liability for any part of such loss upon one not culpable would not only be a judicial wrong, which shifts the misfortune upon an innocent person, but its effect would be disastrous to the safety of life and property, by removing a strong incentive to the exercise of care and skill in the conduct of every occupation and business. The courts would then become, not only tribunals for the assessment of damages, without power to inquire into other facts, but instruments of rank injustice. The popular sentiment against absolving a person who without fault of himself or his servants has caused damage to another is as unjust and impolitic as the obsolete law of deodand, which forfeited to the king the animal or thing which caused the death of a human being. The civil law, the common law, the maritime law, and the law of Great Britain and the United States agree that where a collision takes place by inevitable accident, without blame being imputable to either party, the consequences of the misfortune must be borne by the party upon whom it happens to fall.

Pars. Shipp. & Adm. 525, and cases. It is not necessary to this defense that the party proceeded against should have used extraordinary skill and diligence, but simply, "that degree of skill and that degree of diligence which is usually found in persons who discharge their duty." *The Thomas Powell* and *The Cuba*, 2 Marit. Law Cas. (O. S.) 244; *The Marpesia*, L. R. 4 P. C. 212, and cases cited; *The Virgo*, 3 Asp. 285; *The Pladda*, L. R. 2 Prob. Div. 34. "The highest degree of caution that can be used is not required. It is enough that it is reasonable under the circumstances, such as is usual in similar cases, and has been found by long experience to be sufficient to answer the end in view,—the safety of life and property." *The Grace Gardner*, 7 Wall. 203; *The Mabey* and *The Cooper*, 14 Wall. 204–215. The courts of common law hold the same doctrine, which is well expressed in *Bygert v. Bradley*, 8 Wend. 478:

"When we speak of an unavoidable accident, in legal phraseology, we do not mean an accident which it was physically impossible, from the nature of things, for the defendant to have prevented. All that is meant is that it was not occasioned in any degree, either remotely or directly, by the want of such care and skill as the law holds every man bound to exercise."

See, also, *Weaver v. Ward*, Hob 134; *Losee v. Buchanan*, 51 N. Y. 476; *Bizzell v. Booker*, 16 Ark. 308; *Morris v. Platt*, 32 Conn. 75; *Brown v. Marshall*, 47 Mich. 576, 11 N. W. Rep. 392; *Gault v. Humes*, 20 Md. 297; *Morgan v. Symonds*, 1 Jur. 137.

Tried by this rule, it is clear that the claimant has established his defense. Every practical precaution seems to have been taken to forestall this casualty. Its occurrence may, with equal reason, be referred to a sudden and extraordinary strain, which is the theory of masters of experience, or to a latent undiscovered defect in the rope, or the co-operation of both these causes. Whether occasioned by either or both, it was inevitable. The claimant had a right to assume that the reputable ship chandlers from whom the tiller rope was bought were competent and careful dealers, and had used due care in their purchases; and also that an article of such vital importance to the safety of a steam vessel, made by manufacturers of good standing, might be relied upon as adequate to the purpose for which it was designed, especially when it had withstood the proper test. Its use and service approved the claimant's judgment. There was nothing to indicate weakness, though its condition was carefully observed. Consequently, no negligence in its use is shown. *Railway Co. v. Huntley*, 38 Mich. 547; *Readhead v. Railway Co.*, L. R. 4 Q. B. 379; *Daniel v. Railway Co.*, L. R. 5 H. L. 45; *Richardson v. Railway Co.*, 1 C. P. Div. 342.

Nor does the evidence sustain the imputation of fault founded on the failure to use the relieving tackle. There was no time to bring that appliance into use. It is not intended for use in emergencies demanding prompt action, nor for the navigation of a large steamer in a narrow channel, but it is a temporary steering gear, to be hooked to a tiller in bad weather, as a safeguard against the consequences of the breaking of the tiller rope, or as a substitute for it, when broken, until it can be

repaired. The master of the steamer testifies that it could not have been hooked on ready for use under three to five minutes, while less than three minutes elapsed from the discovery of the break until the collision. The fact that the injury has befallen the libelants without fault on their part, and they are the only sufferers, has naturally invited a close scrutiny of the defense; but the proofs fail to disclose any grounds for the condemnation of the Olympia. The loss must rest where it has fallen, and the libel must be dismissed.

The circumstances under which the collision occurred justified the libelants in bringing suit for their loss, as only judicial inquiry could have elicited the evidence which has exonerated the Olympia. If it had appeared that an equally full showing of the proofs in her defense had been made prior to the filing of the libel, I should have followed the American rule, and allowed costs to the claimants, but, under the circumstances, no costs will be allowed.

END OF VOLUME 52.