braces, or base of the patented device, they were not anticipations of The proofs show that the patented dummy has commended itself it. to the public interested in such devices. It is a better model of the human figure, and because of the continuous surface of the shell clothing can be made to fit more accurately upon it than upon the intersticial frame or shell of the wire dummy. But the patent cannot be sustained because the device is destitute of patentable novelty. If the substitution of the paper or papier mache for the wire of the shell or frame was obviously practicable, the patentee was not an inventor. If mechanics, skilled in the particular department of construction, could have seen at a glance the feasibility of the change, then, although the device may have been mechanically new, it was not intellectually novel. The paper which was substituted for the wire had been used to make the shell of a figure in imitation of the human body, and the figures in which it was thus used had been employed for displaying clothing. The displaying of clothing was not the primary purpose for which these lay figures were intended, but that use was not only suggested, but was very obviously one of the ends in view. Not only, therefore, had the material that the patentee, substituted for the wire been employed, as he employed it, to make the shell or frame of a figure resembling the human body, but it had also been applied to perform the same office. The new application of an old material to a cognate use will not generally support a pattent. but here it was employed in the same use.

The bill in the several cases is dismissed.

GOTTFRIED v. STAHLMANN, and thirteen other cases.

(Circuit Court, D. Minnesota. October 23, 1882.)

PATENTS FOR INVENTIONS-VALIDITY.

The validity of letters patent No. 42580, for a new and improved mode of pitching barrels, sustained on the authority of Gottfried v. Crescent Brewing Co. ante, 479.

Banning & Banning, for complainants.

J. B. & W. H. Sanborn and C. K. Davis, for defendants.

Before McCRARY and NELSON, JJ.

PER CURIAM. At the conclusion of the argument on the final hearing in these cases, the court on consultation were convinced that the v.13,no.12-43 patent should be sustained, but deferred announcing an opinion until a decision should be reached by Judge Gresham, of the Indiana circuit, who had under consideration the validity of the patent in the case of *Gottfried* v. *Brewing Co.*, in which and the cases before this court substantially the same testimony is presented. Judge Gresham, after a rehearing, sustained the patent. We concur with this decision, and think it unnecessary to give any reasons additional to those announced by him.

Decree will be entered in favor of the complainants, with costs, which are to be divided between all of said cases equally.

See Gottfried v. Crescent Brewing Co. ante, 479, withdrawing the ruling in same case, 9 FED. REP. 762.

THE GOLDEN GROVE.

(District Court, D. Delaware. 1882.)

1. ADMIRALTY-COLLISION-SAIL AND STEAM-VESSELS.

While it is the duty of a steam-vessel to avoid a sailing vessel, it is no less the duty of the latter to afford the steamer all the means and signals the law, custom, and common prudence prescribe to enable her to make this avoidance; and if in any respect she fails therein and thereby produces the disaster, she must either bear the whole loss, or her share thereof, as her fault was the sole or partial cause of the collision.

2. SAME-SAME-LOSS.

The evidence in this case showing that no fault was to be imputed to the brig in regard to her lights, or in not changing her course when approaching the steamer, but that the steamer was in fault (1) because she had not proper and sufficient lookouts; (2) because her officers and men were careless, ignorant, and incompetent; and (3) because when the collision was imminent her speed was not slackened or arrested, or the engine reversed in time to avoid collision,— the entire loss resulting therefrom must be borne by the steamer.

3. SAME-LOSS OF FREIGHT-APPORTIONMENT.

In cases of total loss before freight is fully earned by delivery, the owners of the vessel, if not in fault, are entitled to the agreed freight, less costs, charges, and expenses of the remainder of the voyage, from which the accident discharges them.

BRADFORD, D. J. This is a cause of collision civil and maritime, in which the owners of the brig Kremlin, (the vessel sunk by the collision,) and of the freight pending on the cargo on board the said brig at the time of the collision, on behalf of themselves, and of the officers and crew of the said vessel at the time of her said loss, owners of charts, books, instruments, and personal effects on board said vessel at the time of her loss, the owners of the cargo of sugar on board of the said vessel at the time of her loss, and the owners of the chronometer on board of the said vessel, are complainants, and John S. Smailes, the master of the British steamer Golden Grove, intervening for the interest of the owners thereof, is the respondent.

There are facts in this case admitted on both sides, or so clearly proven as to leave no resonable doubt as to their verity, a statement of which will simplify and shorten its examination:

On the morning of Tuesday, July the 9th last past, at about 1 o'clock, the brig Kremlin, then on a voyage from Cienfuegos to Boston with a cargo of sugar on board, was run into and sunk by the said Golden Grove; the place of collision being about 30 miles S. by $\frac{1}{2}$ a degree E. from the island of Nantucket. The Kremlin was sailing N. E. by E. She was a hermaphrodite brig of about — tons burden, and was moving at the rate of six and a half knots an hour. Her length was about 117 feet; depth, 15 feet; and beam, 30 feet. She was sailing with a free breeze aft, about one and a half points on the starboard quarter. The night was not dark, neither was it perfectly clear. The horizon was smoky and hazy, though not so cloudy as to prevent stars well above the horizon from being seen. There was no gale—only the ordinary breeze of a summer night on the waters.

The British steamship Golden Grove was on her voyage from Cardiff to the Delaware breakwater for orders. Her course was W. 1 S., and she was sailing at the rate of eight and a half knots per hour. At the time of the discovery of the steamer by the Kremlin the former bore about two and a half points on the starboard bow of the latter. The Kremlin did not change her course in the least degree until she was struck by the steamer. The Golden Grove had but one watch on deck for some time before the collision took place. On the first discovery and report by the watch of the steamer of the bright light or flash-light on the Kremlin, the helm of the Golden Grove "was at once put hard a-port," and from that time to the time of the collision she kept her helm hard a-port, and in that time changed about five points of the compass. No attempt was made until some time after this maneuver to arrest the speed of the steamer; not, indeed, until within some 200 feet of each other, when the attempt which was then made proved utterly inefficacious. Immediately on the discovery of the approach of the steamer the captain of the Kremlin had a torch lighted on the starboard side of his vessel, on which side the steamer was approaching. It was relit twice after it had been first extinguished. It was such an one as was commonly used by sailing vessels on the approach of steamers in the night-time. The Kremlin had no other bright light on board. The red light on the steamer was seen from the Kremlin distinctly before the torch-light was lit.

While it is true that it is the duty of the steam-vessel to avoid the sailing vessel, it is no less the duty of the latter to afford the steamer all the means and signals the law, custom, and common prudence prescribe to enable her to make this avoidance; and if in any respect she fails therein and thereby produces the disaster, she must either bear the whole loss, or her share thereof, as her fault was the sole or partial cause of the collision.

The libelants say that the Kremlin in all respects obeyed the requirements of the law and usage as regards the conduct and management of sailing vessels, particularly those provisions concerning the exhibition of signals required by law, and that the collision was the result of carelessness, recklessness, ignorance, and the violation of the simplest rules for the preservation of safety on the part of the watch and officers of the steamer. The claimant on the other hand contends that the collision was not the result of any fault on the part of the officers, or of any of the crew of the steamer, but was produced by a series of improper acts and maneuvers on the part of the Kremlin-First, (as stated in the printed argument of the claimant, page 22,) by placing her lights so that they did not cover ten points; second, by flashing three consecutive lights in such a way as to obscure those lights and make them useless; and, third, by failing to do, when the catastrophe was imminent, the only thing which could have been done to prevent the accident, or at least to attenuate its consecuences.

It must be evident that this is a case in which the collision was not the result of any accident in the legal sense of the word. Signals were shown and seen. There was ample time in case of doubt, as will be fully shown hereafter, to have arrested the speed of the steamer before an accident was possible. There was nothing in the character of the night as to darkness or storm or dangerous coast to interfere with the full exhibition of signals, their prompt discovery if properly exhibited, and their intelligent interpretation by every man fit to be on the lookout or to navigate a steam-ship. This collision was therefore not the result of accident, but of fault somewhere, either wholly by the steamer or wholly by the brig, or jointly by both. the investigation of this question of fault I shall take up the subject in the order in which it has been considered by the claimant's counsel:

1. Had the brig proper side lights, and were they properly placed; that is, placed so in the vessel as that no object intervened so as to obstruct the green light on the brig from the lookout on the steamer? It is not contended that the lights, green and red, as required by the rules for preventing collisions on the water, (enacted by the congress of the United States and to be found re-enacted in the late revised edition of the Laws of the United States, § 4233, p. 815,

and in the articles and regulations now in force under orders in council in Great Britain for preventing collisions at sea, to be found in Holt's Rule of the Road, articles 3 and 5, and pages 8 and 9,) were not of the precise kind required by law, as to form, size, quality, and construction of the lantern and fenders. The character of the lights and lanterns and fenders was so abundantly proven by witnesses who spoke to that point, and by the production of a lantern as Exhibit D, which was proven to be of the proper kind, and exactly like those on board of the Kremlin, that it must be assumed as an undeniable fact that the Kremlin had on board the night of the collision, such lights, red and green, and their proper screens or fenders. In this connection it may be stated that it was proven that the lights were larger than those usually used on brigs of the size of the Kremlin, and were of the same size as those used by the steamer.

2. The next question for investigation is, were these lanterns propperly trimmed, or prepared and made ready to burn brightly, as they were intended to do and as they were capable of doing? And did they, in point of fact, burn in such a manner during that evening until the collision? On this point we have the testimony of Frank Morgan, who was on board of the Kremlin as cook and steward at the In answer to the question, "State whether or time of the collision. not on the day before the collision you did fill and trim the lamps, and if you state that you did, state fully and in detail all you did to them;" he replied: "Yes, sir; I did every morning, sir. I took the lanterns out and cleaned the glass; I cleaned the reflectors, I trimmed the wick, and I filled them up with oil, and at last I cleaned them all around the bottom and sides." He further said that the lights he lit "were exactly like this one;" putting his hand on the one produced as Exhibit D in this cause. Now this testimony is natural, explicit, and is denied by nobody. Were these lights lit on the night of the collision, and were they burning as they were intended to burn up to the time of the collision? The first mate of the Kremlin. Carlston, says, (page 29, testimony,) in answer to the question, "Do you know who put up the lights that night?" "Yes, sir: the man that was drowned and I myself. I put up the starboard light: the man that was drowned put up the other." So far there can be no doubt that the side lights of the brig were filled, trimmed and lit on the evening of the collision.

It has been asserted by the claimant and respondent that the green light of the Kremlin was burning dimly; that it was not emitting that brightness or intensity of light of which it was capable, and for which

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it was constructed; and as that was the side light on the brig, over the port bow of the steamer, from this alleged defect of light, which could have been and ought to have been corrected by the brig, the steamer was prevented from discovering the motions of the brig. The evidence as to the dimness of this green light (outside the question of obstruction) is intended to reach this result, or it amounts to noth-The matter of having side lights burning with the usual and ing. proper intensity is of importance in the cause: perhaps as of much importance as their proper disposition or placing on the brig. The testimony on behalf of the claimant on this point is as follows: Charles Atwood, ordinary seaman on the steamer, on deck keeping watch on the night in question, just before the collision, in reply to the question, "How was that (meaning the green) light burning?" replied. "Dim, sir." Page 110, testimony. William Wintle, able seaman at the wheel on the steamer, in reply to the question, "When you saw the green light of the brig, how was it burning?" replied, "Dim, sir." Page 121, testimony. Edmund Lee, the lookout on the steamer, in reply to the question, "How was the green light you saw burning?" said. "It was dull, sir." Page 139, testimony. McAdam, second mate of the steamer, in reply to the question of "How the green light was burning," replied, "Very dim." Page 154, testimony.

It is to be remarked that this is the testimony of the lookout, the watch on deck at the time of the collision, the sailing master, and the man at the wheel of the steamer,-the steamer which ran down the brig,-every one of whom were specially, on that occasion. charged with the prompt and accurate observance of signals. Again, that the statement of three of these witnesses-two, that the light was dim. and the other, that the light was dull-are very indefinite and uncertain in their meaning. Again, that this very green light was seen by the men on the steamer in the short intervals between the flare-up or flash-lights. Doubtless this green light was dimmed, if not totally obscured, while the torch-light was burning, but it was clearly seen in the intervals of comparative darkness. How far the one witness, who swore that the green light was very dim, was affected by the confusion of lights, in view of the direct evidence on the other side, it would be useless now to inquire.

The evidence on the part of the brig Kremlin, as to the proper condition of her lights, is as follows: The fact of their having been trimmed, filled, and burnished, affords a very reasonable presumption that they both afterwards did burn in their accustomed manner. The Vivid, 7 Note of Cas. 127. The captain of the Kremlin, Haskell, says

(page 3, testimony) that in answer to his question to the mate on the Kremlin, "If our lights were all right," that the mate then walked forward of the mainmast, and walked from the starboard side of the vessel to the port, and said, "Our lights are all right." In answer to the question, "How long before the collision had you seen these lights, or either of them, with your own eyes?" he said, "Thirty minutes, about." In answer to the question, "In what condition were they when you saw them 30 minutes before the collision?" he replied, "They were burning bright as usual." In answer to the question, "Did you see them, or either of them, after the collision?" he replied, "Yes, sir; I saw both of them when the water was coming over the top of that vessel's forward house, burning bright." Pages 8 and 9, testimony. Carlson, the chief mate on the Kremlin, says, on page 29. "I went and looked at the lights;" they were "burning clear;" and this immediately on the discovery of the steamer by her masthead light. John Smith, able seaman on the watch and lookout on the Kremlin, says, (on page 51,) "I saw the side lights before the collision;" and that "they were in good condition as far as he And in answer to the question, "How they were as to being could see." bright or dull," replied, "Bright, sir." Page 51. Nelson, able seaman at the wheel of the Kremlin on the night of the collision, says, (page 58, testimony.) "I saw the side lights three or four minutes past 12. when I came to relieve the wheel;" "they were then in good condition, burning clear as usual." Harding, second mate of the Kremlin, says, (on page 66, testimony.) that "by the captain's order he noticed the side lights at 10 o'clock, when he came from the wheel," and that then they were in "proper condition" and "burning bright." He further states that by the captain's order he looked at the lights at 12 o'clock, and that then they were in "proper condition" and "burning bright." In weighing this testimony on both sides, and considering all the circumstances under which it was given, and the opportunities for correct observation on either side by the various witnessess, the uncertainty and indefiniteness of the testimony of three of the claimant's witnesses as to the degree of light emitted from the green lantern, I have no reasonable ground to doubt that the green light on the starboard side of the Kremlin was burning, before and at the time of the collision, in its usual manner; that is, with the brightness it was capable of showing and intended to show. The only testimony in direct conflict with this result is that of McAdam, the second mate of the steamer, who speaks of the green light as "very dim;" but his testimony alone, as against that of five explicitly-clear witnesses on the brig to the contrary of his statement, should have little weight, as will be seen hereafter.

3. The next matter to be determined is, were these side lights properly placed on the brig? That is, were they so placed as not to be intercepted by any object aboard from showing 10 points of the compass from directly ahead to two points abaft the beam? There is no positive law fixing the place where side lights on such a vessel as the Kremlin shall be carried. The objects to be secured are safety to the lights from storm and sea, and unobstructed and continued visibilty of the lights over the points of the compass above named. It would appear that the accustomed place, the very generally used place, and the universally used place on American hermaphrodite brigs of the make and rig of the Kremlin, where the said side lights were placed, ought to be the right and proper place, if any reliance is to be had in the very obvious interest for the safety of the crew, the cargo, and the vessel by their owners and masters. Haskell (page 8) says brigs like the Kremlin carry the lights in the "main rigging." J. A. Wyman, former captain of the Kremlin says, (page 73,) "Hermaphrodite brigs like the Kremlin usually carry their side lights in the main rigging, because they can best be seen there, and when placed there they are not obstructed by the foresail, so that they cannot be seen as they are designed to be seen." John S. Emery, one of the owners of the Kremlin, (on page 76,) says, "Vessels of this rig [that is, of the Kremlin] usually carry their side lights in the main rigging. I think it is the only proper place on a hermaphrodite brig." In answer to the question, "State why you think so," he says, "Because, if properly placed, no sail can obscure them, and they can be carried there with safety from being extinguished by sea or spray." Mr. Caudage. marine inspector for the record of American and foreign shipping at the port of Boston, (on pages 81 and 82,) says, "In American hermaphrodite brigs there are many that carry their side lights there. [i. e., in the main rigging,] but I should think-it is my judgment only-that more carry them on the quarter." In answer to the interrogatory, "Is not the main rigging, in your judgment, a proper place to carry them ?" he replied, "It is." Moses H. Small, master mariner, says, (page 88,) "Hermaphrodite brigs usually carry them [side lights] in the main rigging, and that, in his judgment, it was the proper place to carry them." He also said, on cross-examination, (same page.) "I have never seen them carried in any other place on board American vessels," (i. e., hermaphrodites.) George W. Carliste, master mariner, (on page 90,) says that "hermaphrodite brigs usually

carry their side lights in the main rigging, and that in 'his' judgment it was the proper place." In an answer to the question, "Is there or not, in your judgment, any danger that the side lights placed in the main rigging will be obstructed by any sail or sails from view of any approaching vessels?" he said, "In my judgment there is John Dunbar, shipping master, Boston, said he was familiar not." with hermaphrodite brigs, had commanded several of them. and that. "speaking of hermaphrodite brigs, they [the side lights] are carried in the main rigging invariably, and, in my judgment, I certainly think it the proper place." Mr. Spencer, surveyor, Bureau Veritas, classification of ships, etc., a witness for the claimant, in reply to the question, "Is it or not, in your judgment, a proper place on board a hermaphrodite brig to put the regulation lights in the main rigging?" answered, "It is not the proper place unless they are rigged out as far as the vessel is wide."

This is all the evidence bearing on the point as to the usual and proper place of fixing the regulation or side lights on a hermaphrodite brig, and it settles the fact conclusively that the main rigging, in which they were placed on the Kremlin, was the usual and proper place on such a vessel. But it was contended by the claimant that admitting all this, they were improperly placed on the Kremlin,—*i. e.*, so placed as not to be visible to approaching vessels, as required by law; that there was that peculiarity in the make, fashion, and position of the foresail and rigging to the foremast, and their relative position to the lights as they were fastened in the main rigging, which obstructed and prevented these lights being seen as required by law. It is very true that the important question in this connection is not, where was the usual and proper place for side lights to be placed on such brigs as the Kremlin, but were they in fact so placed on the night in question as to cast an unobstructed light, as required by law?

In view of the fact that this green light might have been seen before the lighting of the torch-light by a vigilant watch on the steamer, such a watch as she was required to keep,—and the further fact that such discovery of the green light without any bright white light on the vessel would have presented the certain signal of a moving vessel, and thus enable the steamer easily to have avoided all danger, I shall examine at some length the question of fact of the actual obstruction or non-obstruction of the side lights on the night in question. It will be understood that the green side light was fastened in the main rigging of the starboard side of the brig. The brig was moving in the course above named at the rate of speed above named. with a free breeze about one and a half points off of her starboard quarter. Her mainsail was swung over her port side. Her foresail was changed from the square from one to two points forward on the starboard side, the yard being about in a line with the bottom of the The lower clews of the foresail were led forward on the starsail. board side, and the clews on the port side were hauled back or drawn in. There was no boom or yard to the lower part of the foresail. The angle made by the two lines drawn from the green light to the outer sides of the foresail was somewhat narrowed by reason of the canting of the foresail, and additionally by reason of the clews being drawn to the sides of the vessel, and the bottom of the foresail was considerably raised by reason of the action of the wind in causing it to belly. (1) There was no evidence as to the width of the foresail if stretched along a boom; none as to the width of the foresail relatively to the width of the vessel; none as to the comparative width of the vessel at the foremast and mainmast. The evidence was only general that the Kremlin was rigged as all hermaphrodite brigs usually are. Satisfactory evidence on these points would have closed the case, as far as the obstruction of the lights by the width of the foresail was concerned. Failing this evidence, the proof of the fact of actual obstruction is to be found in the statement of witnesses present on the occasion, and who then and there examined these lights with a view to their "being right," as they expressed it; that is, being visible without any obstruction for the ten points of the compass, as required by law. (2) In the proof of the relative positions of the lights to the sails and rigging, as matters of fact, by persons on board the brig, her owners and former masters; and (3) by expert testimony as to the fact of obstruction and the amount of obstruction to side lights on the brig on the night in question, to be drawn from a suppositious or hypothetical state of facts.

1. I shall not repeat what the witnesses for the libelant have said as to the side lights having been lit, placed in the rigging, and burning brightly, but state briefly what they have testified to as to the fact of their visibility from their own observation. Haskell, pp. 3, 9; Nelson, p. 64; Harding, p. 67; Wyman, p. 73. Capt. Haskell (page 3 of the testimony,) says that at his suggestion the mate, just before the torches were lit, walked forward of the mainmast, and from the starboard side of the vessel to the port, and said our lights are "all right." This was an act of examination made at the time when safety to life and property might depend on the fact of these lights being "all right," and it is but fair to presume that "all right" meant as they were intended to show; i. e., showing 10 points of the compass from directly ahead to two points abaft the beam of the brig. On page 9, in answer to the question, "As the lanterns were placed could the lights have been obstructed by any of the sails?" he replies, "No, sir; the sails could not obstruct the light in any shape from showing from two points aft to straight ahead." This is the evidence of the captain of the vessel as to the actual obstruction of the lights of the brig by objects on board. This witness certainly enjoyed every opportunity of exact knowledge on this subject. Nelson, able seaman on board the brig, in reply to the question, "State whether or not in your opinion, or according to your best judgment, the foresail of that vessel, as set upon her at any time while you were on board of her, would obstruct her lights, or either of them, as they were made to show;" replied, "No." Page 64, testimony. Harding, second mate of the Kremlin, (page 67,) says that "he never saw her sails set in such a way as that they would obstruct her side lights, or prevent them being seen in such a way as they were designed to be seen, and that he remembered how the sails were trimmed that night." J. A. Wyman, former master of the brig for two and one-half years until September before the collision, after answering that the side lights were properly carried in the main rigging, because they "can best be seen there," replied to the following interrogatory, viz.: "When placed there are they obstructed by the brig's foresail or not, so that they cannot be seen as they are designed to be seen?" "They are not." So much as to the proof from witnesses on the brig on the night in question, (all but Wyman,) on the point of the actual obstruction of the side lights by the sails of the Kremlin.

We will now examine the fact of actual obstruction as an inference to be drawn or not from other facts proven in the cause. It will be remembered in this connection that the steamer was two and onehalf to three points off the starboard bow of the brig; that the brig was sailing with the breeze aft on her starboard quarter as described; that the yard of her foresail canted from one to two points forward from the square, and the clews of her foresail were led forward on the starboard side and pulled back on the port side. The brig had a shear that made her deck from fifteen to eighteen inches higher at the foremast than at the mainmast, and she was about one foot lower at the stern than at the bows when loaded. The evidence proves that the side lights were from seven and one-half feet to eight feet from the deck of the brig at the mainmast; the rail was about two feet from the deck at the mainmast, and the lights were from five and one-half to six feet above the rail.

It remains now to find out how far the lower part of the foresail, if stretched along a boom, was from the deck, and we then can determine certainly whether there was any obstruction to the lights from it, and, if any, how much, by reason of the foresail falling lower than the side lights. The rail is the same in height at the foremast as Haskell says (at page 14, testimony) that the foot the mainmast. or the clew of the foresail was about five and one-half feet (with the yard square) from the rail of the vessel. This would place the foresail, if stretched along a boom, seven feet and a half from the deck. Add to this eighteen inches for the shear of the vessel, the difference in height being fifteen to twenty inches greater at the foremast than at the mainmast, (Haskell's testimony on second examination,) and three inches (for settling by the stern, one foot on account of load) between foremast and mainmast, and we have the stretched foresail nine feet three inches in height above the deck at the mainmast. The lights are about seven and one-half feet above the deck at the mainmast, as aforesaid, which leaves on a horizontal line drawn forward from the lights towards the foresail a space between that line and the bottom of the sail of twenty-one inches. Giving the respondents the benefit of the three inches greater height at mainmast, which the proof will not warrant, it will still give eighteen inches under the sail for the lights to be seen. Now the lifting of this sail up by the wind somewhat at the clews or corners, and considerably as you approach the center from each clew, it will be seen that the lights must have been clearly visible under the foresail, and that this evidence we have been discussing fully corroborates that heretofore quoted as to the lights being set so that they were not in any way obstructed by the sails or rigging of the brig, so as to prevent their showing as they were intended to do by law. It is true, Nelson, able seaman on the Kremlin, states he "guessed" that the lower part of the sail was four or five feet from the rail: but at the same time, in answer to interrogatory 27, page 64, he said that "the lights of the vessel were so set upon her that the foresail never obstructed them," which could not be the case unless they shone under the foresail. I do not consider that his testimony affects or necessarily conflicts with the proof as above established.

But the respondents still insist that the foresail was so much lower than the lights as to obstruct their being seen straight ahead; and this result is based upon calculations made upon data proven by Carlson, mate of the Kremlin. First, Carlson, "guesses" the boom of the mainsail was "seven feet from the deck of the vessel," and then is asked, "Is the boom of the mainsail as high as the clew on the foresail?" His answer is, "Yes. sir; and higher." "How much higher?" Answer. "Don't know, sir; could not tell exactly." Question. "Was it a foot, or three feet, or five feet?" Answer. "It was not five feet; I should call it three feet." Now the argument of the respondents is, assuming the distance of the lights from the deck at the mainmast to be eight feet, and the distance from the boom of the mainsail to the deck seven feet, and the clews of the foresail three feet lower than the boom, then the foresail will fall two feet below the lights, and thus obstruct them from being seen from straight ahead to two points abaft of the beam. Even upon this calculation, eighteen inches for the shear of the vessel being allowed, and three inches for increased height of deck at foremast over that at mainmast, (from loading the vessel,) will bring the clews and lights nearly on a level, to say nothing of the rising of the lower part of the foresail by bellying, and the undulations of the waves, which make the lights show ahead even if somewhat higher than the bottom of the foresail. But the weakness of this argument arises from the uncertainty of the data from which the conclusion is drawn, and the generally indefinite and contradictory statement of fact by the witness. First, he "guesses" the height of the boom of the mainsail above the deck to be about seven feet. (at what point in its length is not stated.) Next, he places the height of the rail from the deck "from three to four feet, -- four, he thinks, -- " and afterwards at "about two." (near its real height.) And then he infers that the clew is three feet lower than the boom of the mainsail.

We think this evidence is completely disproved by all the other witnesses who speak of this non-obstruction of the lights of the vessel. It is to be observed here that these lights, to have complied with the regulations, must have shown under the foresail. That sail extended over the sides of the vessel, and does in all like rigged vessels, so as to obstruct the lights several points of the compass off the port and the starboard bows, so that it would be impossible to show lights straight ahead unless under the foresail; and, such being the case, all the witnesses who speak of the lights being so fixed as to show as they were intended to show, must be understood as meaning that they showed under the foresail. It is unnecessary, therefore, to examine any theory as to the obstruction of the lights of this vessel drawn from experts; for, if it be true that the lights showed under the foresail, there is an end of controversy on this **point**. But to close the door on all doubt it will be found that admitting the foresail dropped so low as to shut out the light from straight ahead, yet all of the expert testimony based on supposititious cases failed to bring the green light of the brig within the obstruction caused by the sails. I conclude, therefore, this branch of the case by stating my conviction that the brig Kremlin had her regulation side lights burning and showing as they were intended to do over ten points from straight ahead to two points abaft the beam.

The second proposition is that the sailing vessel violated the regulations imposed upon her by flashing three consecutive torches in such a way as to obscure those lights-i. e., her regulation lightsand make them useless. The captain did, when he saw a steamer approaching him in the night, just what he was required to do by the act of congress especially made for such an emergency. Section 4234, p. 8, 18 U. S. St. (last Rev. Ed.) says : "Every such vessel (i. e., sailing-vessel) shall, on the approach of any steam-vessel during the night-time, show a lighted torch upon that point or quarter to which such steamer shall be approaching." This act of duty is enforced by a penalty of \$200 for every omission or neglect in its performance. The sailing vessel was not only permitted to show the torch-lights, but was required to do so, and the captain did it in the manner required by law. He was not to consider whether the other vessel would be confused by such torch light being shown. He had a right to assume that an act of congress creating signals governing the conduct of the American marine in American waters would surely be understood by all the masters and officers of steam-vessels of every country competent to navigate them in such waters. While it is true that, by the common law of the sea, sailing vessels were not required to show these torch-lights to steamers approaching them, yet there was no reason for a moment's confusion or hesitancy or embarrassment (supposing the British captain and officers ignorant of the American law) after the first torch-light was extinguished. The theory and ground of defense of the respondents is that they supposed they were meeting a stationary or anchored vessel-a fishing vessel or open boat. But by the ninth article of Holt, Road, 55, it is provided that "fishing vessels and open boats, when at anchor or attached to their nets and stationary, shall exhibit a bright white light;" and next paragraph, "Fishing vessels and open boats shall, however, not be prevented from using a flare-up in addition, if considered expedient." This is not the time to comment on the conduct

of the officers of the steamer in interpreting signals on the sailing vessel. Such remarks will find a proper place further on in this opinion. Suffice it to say that whatever were the capacities of the steamer and its officers to rightly interpret the signals of the successive torches, the duty was no less imperative on the brig to show those torches not only once, but as often as she supposed they would aid her in warding off danger.

The third point made by the respondent is that the Kremlin was in fault "by failing to do, when the catastrophe was imminent, the only thing which could have been done to prevent the accident, or at least to attenuate its consequences." The customary or common law of the sea, and the rule of navigation as adopted by the navigation laws of the United States, are one and the same on the matter of a sailing vessel keeping on her course. The fifteenth article of the regulations adopted in Great Britain is in these words: "If two ships, one of which is a sailing ship and the other a steam-ship, are proceeding in such directions as to involve risk of collision, the steamship shall keep out of the way of the sailing ship." Article 18 is in these words: "When by the above rules one of two ships is to keep out of the way of the other, the other shall keep her course, subject to the qualifications contained in the following article." This article is the nineteenth, and is in these words: "In obeying and construing these rules due regard must be had to all dangers of navigation; and due regard must also be had to any special circumstances which may exist in any particular case, rendering a departure from the above rules necessary in order to avoid immediate danger." In the rules for the navigation of the American marine as prescribed by the acts of congress, as above quoted, rule 20 is the same in substance, and nearly in language, with the article 15 above quoted, and identical in meaning. Rule 23 is in these words: "When, by rules 17, 19, 20. and 21, one of two vessels shall keep out of the way, the other shall keep her course, subject to the qualifications of rule 24." Rule 24 is identical with article 19 above quoted in meaning, and nearly so in lan-The result of these rules and articles is that the sailing vesguage. sel is to keep her course when the steamer approaches her in such a way as to involve a risk of collision. Indeed, on no other basis of action on the part of the sailing vessel could the steamer perform intelligently and with safety the duty of avoiding the former. An absolute certainty that the sailing vessel will pursue a certain course up to the time of immediate danger is essential for prompt, confident, and efficient maneuvers on the part of the steamer to avoid the

former. This would seem to be what was required from the sailing vessel without an additional article or rule to enforce it, as provided in the article 18 and rule 23 already quoted. But these rules render this conduct—i.e., keeping on her course—absolutely imperative on the sailing vessel, unless it should be modified by the provisions of rule 24. In this rule the only reasons permissible for changing the course of the sailing vessel were dangers of navigation, or special circumstances existing, rendering a departure from this rule necessary to avoid immediate danger.

Now there were no "dangers of navigation" to the brig existing in this case which would justify her in changing her course, nor were there any "special circumstances" justifying her in doing so unless the peril was so near and impending that only in that way could she prevent a collision. Many cases have been cited bearing on the duty of the sailing vessel to hold on to her course to the last moment until imminent danger made it necessary to change it. St. John v. Paine, 10 How. 557; Crockett v. Newton, 18 How. 581; New York & Liverpool U. S. M. S. S. Co. v. Rumbull, 21 How. 372; Haney v. Balt. S. Packet Co. 23 How, 287; The Potomac, 8 Wall. 590; The Fannie, 11 Wall. 238; The Lucille, 15 Wall. 676; The Commerce, 16 Wall. 33; The Free State, 91 U.S. 200; The Colorado, Id. 692; The Indiana and Buffalo, Newb. 115; Port v. Castilian, Holt. Rule Road, 190; The Iron Duke of Dublin, Id. 227; The Clement, 2 Curt. 363. But granting the brig's ability to avoid collision by a sudden change of course when the danger was very imminent, or at least to have rendered a collision less dangerous, it should not be imputed as a fault to the sailing vessel, if, in the excitement, confusion, hurry, and terror of the moment, produced by the position in which the steamer had wrongfully placed her, she failed to act at all or to maneuver successfully. so as to free herself from danger. The Carroll, 8 Wall. 302; Genesee Chief v. Fitzhugh, 12 How. 443; Bentley v. Coyne, 4 Wall. 509; The Lucille, 15 Wall. 676; The Falcon, 19 Wall. 75.

In my judgment, however, when these vessels approached within two or three hundred feet of each other, at the rate of speed above stated, it was simply impossible to avoid a collision, and such was the opinion of Capt. Haskell at the time, (p. 2, testimony.) They were crossing each other's paths, and the real practical question when the green light of the steamer was shut out from the brig was, which vessel would run down the other. As it was, the steamer struck the brig from the front at an acute angle, nearly at right angles aft of the cat-head, on her starboard bow. The result of starboarding

the helm of the brig at the distance of 300 feet, would certainly have been slightly to have arrested the speed of the brig, and very slightly to have put her bows a-port. Remembering that these vessels are continuing at about the same speed, and in the same general direction, the result most probably would have been that the steamer would have passed ahead of the brig, but not so far as to escape from a blow given her by the sailing vessel, somewhere through her length on her port side; and I am confirmed in this opinion, notwithstanding the testimony of experts Mulford, Spencer, and Fremont. Supposititious cases are presented to them, which are essentially wanting in those data, on which a correct conclusion could be based. It may be true that no harm could be done by starboarding the helm of the brig when the steamer was two to three hundred feet from her, with her green light shut out, as was thought proper by these witnesses; and if good seamanship consists in doing what can do no harm, but which, in all probability, will be utterly unavailable for any good result, then the course suggested by the experts as proper may be considered good seamanship. But the fact is that neither of the experts had a correct idea of the speed of these respective vessels, and the relative bearing of each on the other, when they gave their opinions as to what good seamanship would, under the circumstances, require. Mulford (second testimony) has the speed of the brig,-i. e., six knots per hour-in his mind, but not that of the steamer, which was eight to eight and a half knots per hour; nor is the exact course of the steamer in his mind at the moment,-only generally. the green light of the steamer seen from two to three hundred feet off on the starboard bow of the brig,-two very essential elements in determining the possibility of avoiding a collision when within, say, 300 feet of each other. Such also appears, from the testimony of Mr. Spencer, to have been the absence from his mind of the material facts necessary to form an opinion of the possibility of avoiding a collision; and he, as Mr. Mulford, under the same supposed state of facts, would have starboarded the helm of the brig to have avoided John C. Fremont, master in the United States navy, supposed one. the course to have avoided a collision was to "have starboarded the helm of the brig, and this would have brought the vessels nearly parallel, and so have lessened the force of the collision; or, if the brig's speed was equal, or greater, than that of the steamer, it would make her pass ahead of the steamer, or turn back out of the steamer's course." In point of fact the sailing vessel was two knots slower

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than the steamer, and thus one of the elements in his calculation disappears. He also appears to have had no more accurate estimate of the relative speed of both vessels, and their exact bearing on each other, than the other experts.

I repeat, therefore, when we consider the speed of these vessels, which had not been changed,-that of the brig not at all until the time of the collision, and that of the steamer not until within 200 or 300 feet of the brig,-their relative courses approaching each other, the actual angle at which the blow was struck by the steamer, the place on the brig which was struck,-when we weigh duly these facts, it is a matter of demonstration that no starboarding the helm at the distance of 300 feet could have prevented a collision. Allowing 30 seconds to make a point, by no possibility could she have made more than two-thirds of a point in passing over 300 feet, --- and this is a result of mathematical calculation, -and by no possibility could the speed of the brig have been so retarded by starboarding her helm as to allow this steamer, of between 200 and 300 feet in length. to have passed in front of her; and it is almost a demonstration that the only result of starboarding the brig's helm would have been to have inflicted on the port side of the steamer a most serious blow. There was no time to throw the bows of the brig so far to port as to make her take a glancing or slanting blow from the steamer, and the course of the steamer (which struck the brig, as before stated, at an acute angle from the front) could not have changed her course so much as to have prevented a serious blow from the brig, very different in its consequences from a glancing one. I am firmly convinced, therefore, that to have starboarded the helm within 300 feet of the steamer could not have avoided a collision.

So far as to the conduct of the brig. We will now consider the case of the steamer. While there is no material difference between the proctors in this case as to the questions of law arising, yet it may be proper to state the general propositions which will govern as regards the actions of the steamer, as has already been done regarding the actions of the sailing vessel. (1) The obligations and duties of steamvessels are to be rigidly enforced. See opinion of Chief Justice Taney in 3 Campb. 602, in *Haney* v. *The Louisiana*, and also 23 How. in *Haney* v. *Balt. S. Packet Co.* 287. (2) When a steamer is meeting a sailing vessel it is the duty of the former to keep out of the way of the latter. See articles in Holt, Rule Road, and Regulation of the Rev. St.; Steamer Oregon v. Rocco, 18 How. 570; Haney v. Balt. S. Packet Co.23 How. 287; The Carroll, 8 Wall. 302; The Lucille, 15 Wall. 676; The Sea Gull, 23 Wall. 165; The Free State, 91 U. S. 200; The Indiana and Buffalo, Newb. 115; The Monsoon v. The Neptune, Holt, Rule Road, 186; and other cases too numerous to cite. (3) Ocean steamers and lake steamers are required to have sufficient lookouts. See 21 How. 584; 3 Wall. 268; The Atlantic, Newb. 139, and 91 U. S. 692. (4) Owners of steam-ships are responsible for accidents occurring by the ignorance and incompetency of subordinates placed in charge of the deck. See Chamberlain v. Ward, 21 How. 548; The Colorado, 91 U. S. 692; The Sea Gull, 23 Wall. 165; Haney v. Balt. S. Packet Co. Id. 287; St. John v. Paine, 10 How. 537. (5) Steamships being bound to keep out of the way of sailing vessels, by reason of their great powers of rapid self-movement in any direction, are required, in approaching a sailing vessel under circumstances involving a risk of collision, to slacken speed, or, if necessary, stop and reverse.

Upon a careful examination of this case, I conclude that the steamer was at fault in three essential particulars: (1) She had not a proper and sufficient lookout just before the collision. 21 How. 548. (2) The officers and men in charge of and directing the movements of the steam-ship were careless, and grossly ignorant of the meaning of signals, which would have been promptly interpreted by men of ordinary intelligence and fitness for their situations. (3) When it was apparent to any one of ordinary observation and intelligence as a sailor that these vessels were moving towards each other with great risk of collision, no step was taken to slacken the speed or arrest or reverse the motion of the steam-vessel until they were within two or three hundred feet of each other, when the effort made was utterly inefficacious, although there was ample time to have done so and avoided all possible harm.

The law requires a sufficient lookout on all vessels, both steam and sailing. The supreme court, in 21 How. 548, and in 91 U. S. 692, have said that it was usual for ocean steamers to have two lookouts in addition to the officer of the deck, and with no other duties to perform; and in the latter case faulted a large steam-propeller called the Colorado for having an insufficient lookout, though the watch consisted of the mate, one wheelsman, one engineer, and one lookout precisely the number of the watch on the Golden Grove on duty just before the report of the bright white light on the Kremlin. It is true that the collision in the case of the Colorado took place on a dark night, still the court took occasion to say that such a watch could hardly be deemed sufficient even in a clear night. And this decided fault in not having a sufficient lookout is brought into very probable connection with this casualty. Certainly there is more probability of discovering dim lights on the ocean by two pairs of watchful eyes than by one, or two pairs would not have been customary on steamships. Now, a discovery and report of the green light or starboard light on the brig would have solved all doubts as to her being moving or stationary, and have rendered the order to port the helm of the steamer manifestly improper. The red light on the port side of the steamer was seen without difficulty from the brig, and there is no reason to believe that the green light of the brig could not be as well seen at that distance between the two vessels immediately before the flash or torch-light was shown. Indeed, upon an examination of the whole testimony as to the distance, the green light could have been seen on such a night; it is quite likely it was visible from the steamer before the torch-light was lit, and Lee, lookout on the steamer, on page 139, testimony, in answer to the question, "At the distance you saw the first bright light could you have seen the green light if burning regularly," replied, "Yes, sir; I could." The proof being convincing that the lights of the brig (to use the language of the witnesses) were burning regularly, it is reasonable to suppose that such green light would have been discovered by a sufficient lookout. Considering the size of the Golden Grove, and her speed, and that she was "in the much-frequented pathway of commerce," the haziness of the night, and that she had a large crew from which to increase the number of her lookouts, I have no hesitation in coming to the conclusion that one lookout was not a sufficient lookout for such a vessel under these circumstances.

2. A gross fault for which the steamer and her owners must be held responsible, and out of which directly grew this catastrophe, was the ignorance and incompetency of those who had charge of the reporting and interpreting of signals and the movements of the steamer. Mr. McAdam, the second mate of the Golden Grove, was not (in the language of the supreme court in Chamberlaine v. Ward, 21 How. 548) a competent and skillful officer in charge of the deck. He had never before sailed either as seaman or officer on a steam-ship. The law in reference to the responsibility of ship-owners for employing incompetent subordinates is thus laid down in the case just cited: "Owners of steamships must employ skillful and competent officers; and the remark is just as applicable to the under officers, whether the mate or second mate, as to the master, during all the time they have charge of the deck." Mr. McAdam was in charge of the deck at the time of the report of the bright white light by Lee, and the relighting and extinguishing of the torch-lights, and on the authority of the case above cited he was in fault because he did not seasonably slow the steamer or stop her engines, to avoid all possibility of collision, after it was discovered (upon the extinguishment of the first torch-light, as should have been done without any difficulty whatever) that they were approaching a moving vessel instead of a stationary one.

The respondent insists that he had a right to consider the bright white light reported by the lookout to the master of the deck as the bright white light of a stationary vessel; and he complains as a very great hardship that a British steamer in American waters should be expected to know of a rule of navigation enacted by the congress of the United States, which required sailing vessels meeting steamers in such waters to show a torch-light on the quarter towards which the steamer was approaching. He says he took this torch-light for the bright white light of article 9 and rule 13,---the light carried by a stationary vessel, a fishing vessel, or open boat at anchor. The first question which arises here is, ought the steamer to have mistaken this torch-light for the regulation light, the indispensable white bright light of a stationary vessel? Was such a light distinguishable from a "flare-up," a "torch-light?" Sailing Master Fremont had no difficulty in distinguishing between such lights, and had never mistaken them even in hazy nights for other lights, ---steady lights. Testimony, p. 6. Leaving out of the question the sudden extinguishment of the torch-light, which with absolute certainty makes manifest the difference between the two lights, and cannot be therefore the difference referred to by Mr. Fremont, was it not perfectly practicable to distinguish the "flare-up," or "torch-light," the moment it was lit, from the "indispensable bright white light" of the stationary vessel, at the distance of a mile or a mile and a half? The difference between the two lights was such as to be very observable. The bright white light was a steady light-burning continuously and steadily, and not flaring up or moving about over the ship. The flareup, when lit, was an unsteady light-flaring up, flickering, carried from place to place, now higher, now lower, and throwing lights on the sails in different places with every change of movement. Now. if Mr. Fremont had no difficulty in distinguishing between these lights, the officers of the steamer should have had the same capacity.

It must be remembered that there was no other bright white light on the brig but the "flare-up" or "torch-light," and if it was recognized as such flare-up or torch-light then, at the same moment it would be revealed that there was not the indispensable "bright white light" of the stationary vessel, and the porting the helm became a fearful We will, however, give the steamer the advantage of not blunder. being able to discover the true character of the torch-light or flare-up until it was first extinguished; but when that event took place, and the sails ceased to reflect the flaring, flashing light, and out of the instantaneous succeeding darkness sprung up the green light of the brig, which at that time in all probability must have been clearly discernible, and there was no bright white light whatever on the vessel, (the indispensable light on a stationary one,) why, still, was the helm of the steamer kept hard a-port, as if with a set purpose to run down the brig? Why was not the steamer's speed instantly arrested; her movement forward stopped or reversed, if necessary? It can be accounted for on no other grounds than the carelessness, incompetency, and stupidity of those in charge of the steamer, in not observing, interpreting, and acting upon the plainest signals, and evidences of a vessel moving and not stationary.

That the steamer was approaching a moving vessel is made evident by the comparative sameness of the position of the bright white light on the brig over the port bow of the steamer from the time of its discovery until almost immediately before the collision, although the steamer had made a change in her course of five points after porting her helm. Edward Lee, lookout, (on page 150,) says that this bright white light "at any time was not more than one point over the steamer's port bow." Charles Atwood (page 109) places the bright light, i. e., two bright lights, one succeeding the other, at from straight ahead to one point on the port bow of the steamer. Wintle, helmsman on the steamer, (page 119,) thought the lights of the brig at the time of lighting the second torch-light were four points over the port bow of the steamer. McAdam, second mate of the steamer, (page 159,) says that the bright light the moment before the ships struck, when the brig was broad on her bows, was about four points on the port bow of the steamer. Now, this may be true, as the vessels were thus brought into juxtaposition with each other. meeting almost at right angles; the white light having been carried amidships on the near approach of the steamer to the bows of the Kremlin. We therefore do not think that the evidence of McAdam as to the position of the brig's light immediately before the collision conflicts materially with that of Lee as to the general bearing of the brig's light over the port bow of the steamer.

Regarding all the testimony as to the position of the brig's lights over the port bow of the steamer, we are satisfied that there was sufficient, in this comparatively-unchanged position of the brig's lights, to have caused serious apprehension that the steamer was advancing on a moving and not a stationary vessel, and that she should at once have stopped (and was in fault in not doing so) so as to have discovered the exact condition of things before she proceeded further. See parallel case, *The Grey Eagle*, 2 Biss. 25; 9 Wall, 505.

No blame is to be attached to the captain of the steamer for not knowing that a torch-light was required to be shown on the brig to the steamer from the quarter to which the latter approached. But the steamer was in fault for not knowing the common law of the sea laid down in article 9 and rule 17, requiring the showing of a bright white light on stationary vessels or fishing vessels, or open boats at anchor, such as the Kremlin was supposed to be. No alleged confusion arising from the consecutive flash-lights could blot it from the mind of an intelligent, observing sailor, immediately on the extinguishment of the first flash-light, that the vessel must be a moving one, and not stationary, because she had not the latter's indispensable signal, i. e., the bright white light. The steamer then-i. e., at the extinguishment of the first torch-light - must have known that there was danger of a collision, or if she did not, it was gross incompetency on the part of her officers to be ignorant of that fact. Under these circumstances, her duty was a simple and imperative one, and that was to retard her speed, stop, or reverse if necessary, until matters were made clear and all danger past.

It was claimed in argument by the respondent's proctors that as stationary vessels, such as they supposed the Kremlin to have been, were permitted to use "flare-ups" if considered "expedient," that the fact that the light shown was a flare-up in no manner undeceived them, but rather confirmed them in the belief that the vessel thus using them was a stationary one. Now both the article and rule referred to allowed the use of two different lights on fishing vessels and open boats stationary in the night-time,-the one a bright white light, made indispensable at all times, and the other a "flare-up" or torch-light, "in addition" to the first-named light. It is very evident these lights were essentially different in character, and intended to be so; one being a continuously-burning light, and the other a "flareup," a torch-light,-a light burning but a few minutes and relit to meet some special necessity. The use of the term "flare-up," as contrasted with the term "bright white light," and the words "in addition thereto," are conclusive on this point. If, then, it had been impossible to have ascertained accurately when the flare-up was first

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lit, whether it was the bright light required both by the rule and the article, it was certainly discovered on its extinguishment that the other bright light, the indispensable light of the stationary vessel, was not there.

After the extinguishment of the first torch-light on the brig, was there time for the steamer to have slackened her speed, stopped, and reversed her motion, so as to have avoided all danger? To answer this question satisfactorily we must know approximately the distance between the two vessels. The means of measuring this distance is afforded with a reasonable degree of accuracy by the length of time three torch-lights were burning; from the time the first was lit until the last was extinguished, which was immediately before the collision. These vessels were approaching each other nearly head on, at the rate of 15 knots per hour,—the rate of the brig being $6\frac{1}{2}$ and that of the steamer $8\frac{1}{2}$ knots per hour. They were approaching each other at the rate of a mile in four minutes. There is a difference of opinion between the parties to this suit as to the length of time each torchlight burned before it was extinguished.

Capt. Haskell, at page 17, testimony, says these torches used on this evening were "kept lit at least eight minutes;" on page 5, "that there was an interval of 45 seconds between lighting and the extinguishment of the torches." On page 20 he says that to the best of his judgment "it was more than ten minutes from the time that light (which we understand to be the mast-head light of the steamer) was seen until we were struck." On page 5 Haskell says: "These torches burned on that night not less than three minutes each time they were lit." On page 21 Haskell says, "On board of a vessel we calculate that a torch will burn five minutes;" and as the result of experiments since made by the captain of the brig, "with such an one as they were using on the night in question, that he burned the first in a little over four minutes, and put it out as soon as he saw it burn dim one particle; the second in three minutes and a half, putting it out when it began to burn dim; and burned the third torch-light three and a half minutes, and then put it out because it burned the side of his face." This is the evidence of the master, who was instrumental in lighting and relighting the torches, and who made experiments since with exactly such a torch as was used on the Kremlin; and, without going any further into an analysis of this evidence, I think we may safely say that these flare-ups burned for the space of two minutes each, with an interval of twice 45 seconds, or a minute and a half, for relighting them, making seven and a half minutes from the time the mast-head light on

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the steamer was discovered until the time of the collision. Nor do we think that the testimony offered by the respondent of experiments in New York bay by certain witnesses, accompanied by one of the proctors in the cause, by which it is shown, on hearsay testimony, that a certain torch-light, not made an exhibit in this case, or proven to have held the same quantity of combustible matter (*i. e.*, kerosene) as the Kremlin's, or, in other words, not "such" as was burned by the brig on the night in question, burned one minute or 80 seconds only, should overcome the explicit testimony of Capt. Haskell on this point.

Taking for granted, then, the courses of the two vessels and their speed, and that there was an interval of seven and a half minutes between the lighting of the first flare-up and the collision, we think it cannot be fairly claimed that these vessels were nearer to each other at the lighting of the first flare-up than one and three-quarters of a mile. There is evidence from the steamer, however, as to the time which intervened between the first report of a bright white light ahead and the order given to stop and reverse the motion of the Charles H. Atwood, on pages 108 and 113, states substansteamer. tially that on passing from the main deck to the forecastle to relieve the lookout. Lee, he heard him report a bright light ahead, and that, as he passed the chart-house where the clock was placed, about midships of the steamer, on his way to the forecastle, it was between four and five minutes past 2, or not quite five minutes past. It is proven by the assistant engineer of the steamer, C. Ante, (on page 128, testimony,) and also by David Smith, chief engineer, (on page 134,) that it was between nine and ten minutes past 1 when the first order to stop the engine was given, showing by the ship's time there must have been between four and five minutes before any order was given to arrest the speed of the vessel after the discovery of the bright light, moving, as before said, towards each other at the rate of a mile in four minutes. They must have been, then, over a mile apart. Now, giving the steamer the benefit of the time of the burning of the first flare-up to its extinguishment, up to which moment they may be, for the sake of the argument, considered blameless in not discovering the difference between the character of a flare-up and the indispensable bright white light of a stationary vessel, the next question to be considered is, how far were the vessels from each other at the time of the extinguishment of the first flare-up? Charles H. Atwood (on page 108) says that the light was extinguished in about two seconds after he saw it, and that was immediately after it was reported.

McAdam, officer in charge of the deck of the steamer, says (on page 152) "he did not continue to see it (the light) long—it disappeared."

It will thus be seen by the evidence given for the respondent that the first flare-up must have nearly burned out before it was reported; and by the same evidence that it only burned two seconds before it was extinguished. Deducting that time from the period of between four and five minutes elapsing between the report of the bright white light and the order to stop the engine, and we still have by calculation a distance of over one mile for this steamer to arrest her speed, to stop, or reverse, as might be necessary. Now, it was not pretended that any effort was made to do this until the green light of the Kremlin was just under her port bow; that is, within two or three hundred feet of the steamer.

We are now assuming the distance between the vessels to have been about a mile when the first torch-light was extinguished, (and not a mile and a half, as was more probably the case,) and we say there was ample time for the steamer to have avoided all danger, and it was her manifest duty to have done so by immediately arresting her progress, stopping, and reversing, if necessary. The Golden Grove was a powerful steam-propellor of --- tons burden, and between two and three hundred feet in length. By the testimony of her assistant engineer, Clements Ante, her engine run at 72 or 73 revolutions, and she could come to a full stop in one minute and thirty seconds; it took thirty seconds more to come to half speed astern, and two seconds to come to full speed astern. This is the testimony of respondent's witness, and is not modified or contradicted by that of any other person. It is thus evident that, taking the nearest distance between the two vessels as based on the testimony of the respondent alone, i. e., about a mile, there was ample time to have avoided all danger by adopting the obvious and imperative precaution in all cases of doubt of slackening speed, stopping, or reversing, if necessary. For the law bearing upon this point, see the following citations: Rule 21, Rev. St. 818; Holt, Rule Road, art. 16, p. 12; Peck v. Sanderson, 17 How. 178; Steamer Louisiana v. Isaac Fisher, 21 How. 1; Chamberlain v. Ward. Id. 548; Nelson v. Leland, 22 How. 48; The Hypodame, 6 Wall. 216; The Sea Gull, 23 Wall. 165; The City of Paris, 9 Wall. 634; The Boughvainville v. James C. Stevenson, 2 Asp. 2; Law Cases, 1; The Rena v. The Ava, Id. 182; The Duke of Sutherland, Id. 478; The Magnet and The Fanny M. Carville, Id. 479; The Port v. The Castilian. Holt. Rule Road, 190; The Joseph Straker v. The Carla, Id. 200; The

Emperor ∇ . The Lady of the Lake, Id. 202; The Monsoon ∇ . The Neptune, Id. 186.

For the reasons above given, the court thinks that the Golden Grove was wholly in fault in causing the collision between herself and the Kremlin, and so adjudges and decrees. As a legal consequence, she must bear all the losses sustained by reason of such collision. The Sunny Side, 91 U. S. 208; The Atlas, 93 U. S. 302.

The value of the Kremlin at time of loss,	\$13,000	00
The value of the chronometer lost,	150	00
The value of John Smith's personal effects,	80	00
The value of Capt. Haskell's personal property lost was,	254	19
Value of charts lost,	281	25
Value of clothing, etc., wife of Capt. Haskell lost, -	500	0 0
Value of (mate) Carlson's clothes lost,	198	00
Value of clothes of Nelson, (able seaman) on the Kremlin, lost,	76	00
Value of clothes lost by Charles Harding, (second mate,) -	111	00
Value of goods lost by Charles Smith, deceased sailor,	75	00
Value of goods lost by Morgan, (cook,)	193	53
Value of goods lost by Francais,	75	00
Value of cargo, including original cost of sugars and export duties,	30,431	21
Provisions on Kremlin at time of loss,	121	35
Freight earned by the owners of brig if cargo delivered, -	2,336	4 5

In cases of total loss before freight is fully earned by delivery, the owners of the vessel, if not in fault, are entitled to an apportionment of freight, *i. e.*, to the freight agreed upon, less the costs, charges and expenses of the remainder of the voyage from which they have been discharged by the accident. The Baltimore, 8 Wall. 386. In this case, as the voyage had nearly been completed, (as between Cienfuegos and Boston,) and as there has been no proof as to the charges and expenses saved, we will deduct from the freight \$336.45 as a reasonable amount, leaving the sum of \$2,000 to stand as the freight to which the owners of the vessel are entitled.

Let a decree, therefore, be prepared awarding and decreeing to the owners of the lost property, according to their respective shares, the values of the properties lost, according to the proof in this cause as above stated, together with interest on the several sums of money so awarded them, at the rate of 6 per cent. per annum from the ninth day of July, 1878. That portion of the decree as to the payment for the loss of the deceased sailor's clothes and effects, and also for the loss of the property of the captain's wife, to be made in favor of their personal representatives, when they shall have been appointed and presented the proper evidences thereof before this court,

THE GOLDEN GROVE.

(Circuit Court, D. Delaware. October 6, 1882.)

1. ADMIRALTY-COLLISION-STEAM AND SAILING VESSEL.

When a sail-vessel and a steam-vessel are moving in directions which may involve risk of collision, the latter must keep out of the way of the former. It is the right and duty of the sailing vessel to keep her course, except under "special circumstances" rendering a departure from it necessary to avoid immediate danger.

2. SAME-REV. ST. § 4234-TORCH.

Section 4234, Rev. St., which provides that "every sail-vessel shall, on the approach of any steam-vessel during the night.time, show a lighted torch," etc., is as applicable to navigation on the sea as to inland navigation.

3. SAME-EVIDENCE TO SUSTAIN DECREE.

The evidence in this case showing that no fault was to be imputed to the brig, but that the steamer was in fault, the decree of the district court should be affirmed.

In Admiralty.

John C. Dodge and E. G. Bradford, Jr., for libelants.

Coudert Brothers and Levi C. Bird, for claimants.

MCKENNAN, C. J. This is an appeal from the decree of the district court of Delaware, awarding damages against the steamer Golden Grove, resulting from a collision with the brig Kremlin.

The following conclusions of fact are the result of the pleadings and evidence in the cause:

(1) On the morning of Tuesday, July 9, 1878, the hermaphrodite brig Krem-'in, laden with a cargo of sugar, was on a voyage from Cienfuegos to Boston. and at 1 o'clock was about 30 miles southerly from the island of Nantucket. on the coast of Massachusetts, her course being N. E. by E., with a south-west wind, and a speed of six and a half knots per hour; the course of the steamer being W. $\frac{1}{2}$ S. (2) The weather was calm, an ordinary breeze blowing and the night not dark, but somewhat hazy, not, however, to prevent the stars from being visible. (3) The brig carried the regulation lights,-a green one on her starboard, and a red one on her port side,-which were set in her main rigging, were trimmed, and burning brightly, and were of the character required by the rules of navigation. (4) The main rigging is not only the place in which the side lights are generally set in vessels of the class of the brig; but it is also the place from which they can be seen best. (5) As soon as the steamer was sighted by the brig, which was when they were some two miles apart, the steamer bearing about two and a half points on the starboard bow of the brig, the captain of the latter caused a torch-light to be exhibited on her starboard side. After burning for several minutes it was extinguished, and was twice relit, the brig meanwhile steadily maintaining her course without any variation. (6) This torch-light was distinctly seen by the lookout on the steamer, whereupon her helm was put hard a-port, and was so kept, changing