Giving to the complainant's patents the broad and liberal construction to which we think them justly entitled, it is clear that the second machine of the defendant constitutes an infringement of the complainant's excavator with an inward delivery, and of the combination claims of the complainant's patents adjudged by the court below to have been infringed. The judgment is affirmed.

FOUGERES et al. v. JONES et al.

(Circuit Court of Appeals, Seventh Circuit. May 3, 1897.)

No. 276.

1. PATENTS—INFRINGEMENT.
Structural characteristics of a device, which are distinguished and made essential in a patent claim, must necessarily be found in any infringing device.

2. SAME—ANTI-RATTLERS FOR THILL COUPLINGS.
The Blair patent, No. 334,842, for an anti-rattler for thill couplings, made of a plate of steel or other suitable elastic material bent upon itself, and adapted to be inserted between the ears of a jack-clip, is expressly limited to the special form of device described, and is not infringed by a device of a different form which lacks some of its parts.

Appeal from the Circuit Court of the United States for the District of Indiana.

V. H. Lockwood and Warren G. Sayre, for appellants.
Chester Bradford, for appellees.

Before WOODS, JENKINS, and SHOWALTER, Circuit Judges.

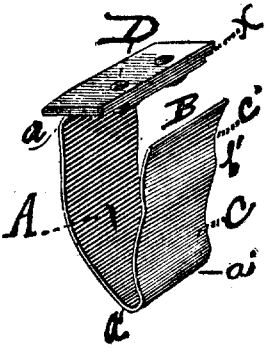
SHOWALTER, Circuit Judge. Appellants brought suit for the infringement of letters patent 334,842, issued January 26, 1886, to one George W. Blair. The patentee says in his specification:

"The object of my invention is the production of an anti-rattler for thill couplings, made of plate steel or other suitable elastic material bent upon itself, and adapted to be inserted between the ears of the jack-clip, and having two curves or corrugations upon its face front, one of which has a bearing against the thill iron. In the accompanying drawing, forming a part of this specification, the figure is a perspective view of the anti-rattler embodying my invention. A represents a steel or other suitable elastic plate, bent forward at a, and having a return bent at a'. The outer limb, B, is formed with a rib or corrugation, b', and has a curved portion, c, between a' and b' From b' to the end of the plate is a curve, c', adapted to fit against the back part of the thill iron, and, by pressure against the same, prevent rattling, as is well understood. To the forwardly projecting part, X, of the spring plate, is secured by rivets, or in other appropriate manner, the plate, D, which forms a T-head adapted to rest on top the ears of the jack-clip, thus preventing the spring from falling or working out in a downward direction, while the rib between the two curved portions, c, c', prevents it from working out in an upward direction. By making the sharp return curves at a', the spring is easily inserted between the end of the thill iron and axle clip. I am aware that anti-rattlers have heretofore been made of single plates of steel bent in various forms. I therefore desire to restrict my claim to the specific device herein shown and described.

What I claim is: The anti-rattler for thill couplings hereinbefore described, made of a steel or other elastic plate, with the sharp return curve, at a', the

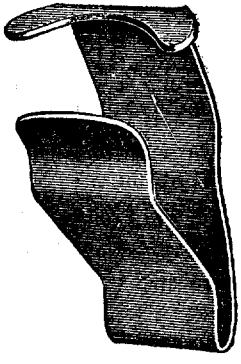
curved portions, c and c', and rib, b', in the outer limb thereof, and having the back part bent forward at a to form the part X, and with the plate, D, secured thereto."

The drawing which accompanied the patent is as follows:



The claim on its face, as well as by the express concession and declaration in the specification, is restricted to the specific device shown and described. In the specification and in the claim itself a distinction is made between a rib and a curve. An angular projection like b' is a rib. An inward bend like c or c' is a curve. Structural characteristics thus distinguished and made essential in the claim must necessarily be found in any infringing device.

That complained of is shown in the following figure:



By comparing this device with that of the patent, it will be noticed that in the bent bar or plate of appellees there is no "curved portion, c," no "part X," in form and function as stated in the patent, and no "plate, D, secured thereto." We do not find it necessary to go generally into details on the prior art, as abundantly shown in the record. If the ears, C, and the clip, D, be omitted from the Murbarger drawings, that device would anticipate the one in suit unless the "curved portion, c," and the "plate, D," constructed and attached as described, be insisted on as essential. But obviously the patentee here, by the terms of his claim when construed with reference to his specification and concession therein, left no scope for his monopoly beyond the special form of device described and a choice of material in making his elastic plate. Hence there is no infringement. We do not find it necessary to consider the point that the claim as a combination is invalid, or the matter of invention.

The decree is affirmed.

THE W. H. SIMPSON.

(Circuit Court of Appeals, Seventh Circuit. May 3, 1897.)

No. 308.

1. TOWAGE—DUTY OF TUG.
A tug is neither a common carrier nor an insurer, nor is the highest possible degree of skill and care exacted of her. She is bound to exercise reasonable care and skill in the performance of the duty assumed, and failure therein is a gross fault, creating liability for resulting injury to the tow.

2. SAME—PRESUMPTIONS.
No presumption of negligence on the part of a tug arises from the mere fact of an injury to her tow, and the burden of proof is upon the tow to show by the evidence and the reasonable probabilities of the case that the tug was guilty of the fault charged through failure to exercise ordinary skill and care.

3. SAME—COLLISION OF TOW WITH DOCK—EVIDENCE.
Evidence and circumstances *held* insufficient to show that the collision of a schooner in tow of a tug with a dock in the harbor of Milwaukee was due to the negligence or want of skill and care of the tug.

Appeal from the District Court of the United States for the Eastern District of Wisconsin.

The schooner F. W. Gifford sailed from the port of Chicago on the 8th day of April, 1894, laden with a cargo of 29,000 bushels of corn, bound for Port Huron. She was a vessel of 400 tons burden, 151 feet in length and 31 feet beam, and with her cargo on board drew 12 feet and 6 inches. During the night a severe northeast storm sprang up, with a high sea, causing the vessel to labor heavily, and at 4 o'clock in the morning it was discovered that the forward pump was broken, and rendered useless. She was then about 30 miles northeast by east from the port of Milwaukee, and was put back for that port. When four or five miles distant from the piers of the straight-cut harbor at Milwaukee, she signaled for a tug, which signal was answered by the steam tug W. H. Simpson, the latter vessel reaching her about a mile east or southeast of the piers. This tug was 67 feet in length, between 17 and 18 feet beam, and had a steam steering gear. At this time there prevailed an easterly gale, accompanied by rain and sleet, the strength of the gale being variously estimated at from 30 to 40 miles an hour, with a heavy sea which washed over the harbor piers, causing a swell of 4 feet running between the piers. These harbor piers extend easterly and westerly and are 1,800 feet in length. The width between the piers is 260 feet. The distance from the west end of the piers across the Milwaukee river, which here runs about north and south, is 550 feet. Benjamin's coal dock is situated on the west bank of the Milwaukee river, nearly opposite the entrance of the piers. The lighthouse is located on the north pier, about 600 feet from the easterly end of the pier. The life-saving station is south of and at the westerly end of the south pier. The schooner passed a line to the tug out of the chock on the port side, which was made fast on the tug. This line was about 250 feet in length between the vessels, which was a proper length of line for towage in the then condition of the sea. The line was 6½ inches in circumference, in good condition, almost new, and in all respects a proper line for the purpose. Upon making fast, the tug proceeded with her tow, distant from 15 to 20 feet on the port side of the schooner. Upon entering the jaws of the piers the schooner lowered her canvas. This being done, signal was given by the tug to stand by and to shorten the towline. This was about opposite the lighthouse. There is much conflict in the evidence with respect to the number of men upon the schooner who were employed in taking in the line, the one party asserting and the other denying that a sufficient num-

ber of men were engaged in that work. At all events, the schooner signaled that she could not get in the line, and that the tug should go ahead, which she did, picking up the slack of the line. A second signal was given to haul in the slack when the tug was some 600 feet east of the west end of the piers, but for some reason the slack was not taken up rapidly enough to prevent a bight or loop in the line, and the schooner, at that time proceeding a little more rapidly than the tug, ran up upon the line and got so near to the tug that the slack in the towline was in the water under the bow of the vessel. By this time the tug had gotten, as asserted by the one party, some 250 feet eastward of the life-saving station, when she signaled the schooner to make fast the line, and when at about the corner of the west end of the pier, she hauled to the northward to swing the vessel up the Milwaukee river, signaling the schooner to put her helm hard a-port, which signal was answered that the helm was hard a-port. There is dispute whether this signal was given; the tug asserting that it was as stated, the schooner asserting that it was not given. According to the claimants, when the tug went across the bow of the schooner, for some reason the latter did not answer to her helm, the line was caught on the bobstay plate and cut, and the schooner, proceeding without control, collided with Benjamin's dock, and sustained injury. According to the schooner, when within 150 feet of Benjamin's dock, and not until then, the tug hauled to the northward, and started ahead at full speed across the bows of the schooner, and without signal, and fetched on the line with a sudden jerk, and it parted; the schooner colliding with Benjamin's dock "a little on the port bow,—a little; not exactly stem on." This libel was filed to recover the damages sustained, and the negligence alleged is this: "That when the tug had towed the vessel to a point within about one hundred and fifty feet of the said H. M. Benjamin's coal dock on the west bank of the river, said tug, without orders, notice, or directions to those on board of the vessel, suddenly changed the tug's course to a point east of north, and said tug shot across the bow of said vessel with great force and speed. That as soon as the tug changed her course from a point about west to a point somewhere east of north, the greater portion of the towline became slack in the water, and when the tug shot across the bow of the schooner as aforesaid, going at full speed, she fetched up on the towline with a tremendous jerk, and parted it; and in spite of all efforts that were made or could be made by the officers and crew of the Gifford to prevent it (the Gifford being so close to the dock known as the 'H. M. Benjamin Coal Company Dock') that she ran into said dock and coal shed standing thereon." The court below dismissed the libel, and the libelant appeals.

Charles E. Kremer, for appellant.
Max C. Krause, for appellee.

Before WOODS, JENKINS, and SHOWALTER, Circuit Judges.

JENKINS, Circuit Judge, upon this statement of the case, delivered the opinion of the court.

The law which governs this case is well settled. A tug is neither a common carrier nor an insurer, nor is the highest possible degree of skill and care exacted of her. She is bound to exercise reasonable care and skill in the performance of the duty assumed, and failure therein is a gross fault, creating liability for injury. The Margaret, 94 U. S. 494; The L. P. Dayton, 120 U. S. 337, 7 Sup. Ct. 568. The difficulty arises, not in the law, but in the ascertainment of the facts from the evidence, which, in cases like the present, is usually conflicting. This one furnishes no exception to the rule. There is here no presumption of negligence arising from the

fact of the disaster, and the burden of proof is put upon the libelant to satisfy the court upon the evidence presented and upon the reasonable probabilities of the case that the tug was guilty of the fault charged through failure to exercise ordinary skill and care.

There would seem to be no need to enter into a discussion of the voluminous evidence presented to the court. It would do no possible good, and would but incumber the reports. The considerations which have led to our conclusion may be briefly stated. The purpose of the tug was unquestionably to take her tow northward up the Milwaukee river. The contention of the tug is that she made the proper maneuver for that purpose at the proper time, and when about opposite the life-saving station. The charge in the libel is that the maneuver was not attempted until the schooner was within 150 feet of Benjamin's dock, when the tug, without signal, suddenly shot across the bow of the schooner, going at full speed, and fetched up on the towline with a tremendous jerk, which parted it. This is the only wrongful act asserted. If this charge be true, it exhibits not only a want of ordinary skill, but a willful and reckless act, and, as it seems to us, without possible motive to sanction it, or reason to suggest it. If, for any uncontrollable cause, the schooner had got within 150 feet of the Benjamin dock, and was in danger of colliding therewith, and the tug had suddenly shot across the bows of her tow, straining on the line, to swing her from her course to avoid collision, the alleged maneuver might be comprehended as a desperate act in extremis; but that skilled seamen, as were those on board of the tug, desiring to go up Milwaukee river, which was there 550 feet in width, should not change course from west to north before arriving within 150 feet of the west bank of the river, and this in manifest disregard of the most ordinary rules of seamanship, and without cause for or purpose in the delay, passes comprehension. Such action is only explainable or made credible upon the theory of utter incompetency in seamanship. The burden of proof being upon the libelant asserting this charge, it must be made out satisfactorily, and this has not been done. It is proven, as we think, by the preponderance of evidence, and is coincident with what was naturally to be expected under the circumstances, that the tug changed her course to the north, upon proper signal to the schooner, when about opposite to or easterly of the life-saving station; and that the schooner answered to the signal that her helm had been put hard a-port, but that for some reason she did not follow the course of the tug, but kept on a westerly course until the towline parted, and she collided with the dock; and this notwithstanding the efforts of the tug to turn her bow. This failure upon the part of the schooner may have resulted from the length of line which she had been unable for some reason to haul in, and the inability of the tug by reason thereof to properly control her movements. It may have resulted from the strong swell carrying her forward. It may