That is the view which now occurs to me in reference to this patent, and it is material for this reason; that while the patent may be sustainable as described in the specifications, and as claimed, it might not be if separated into its various parts; and if we construe the claim in that way there might be so much doubt that I do not think I ought to grant an injunction. Whether the patent can be sustained, and whether, with a more liberal construction, it can be said that there is an infringement by the defendant of the claim set forth in the patent, is the question.

I give these views now, not that they will be absolutely binding upon the court when the case comes to final hearing; but only for the purpose of showing that it is not so free from doubt that the court ought, under the circumstances, to issue an injunction. I think in all cases it ought to be clear to the mind of the court before an injunction is issued.

THE BURSWELL.

(District Court, D. Maryland. October 30, 1882.

SHIPPING-STOWAGE OF CAUSTIC SODA AND COTTON TIES.

It appeared that caustic soda in iron drums is customarily carried in general cargoes with iron cotton ties, and that such drums are strong, durable, and airtight, and that breakage is infrequent; and it appeared that on the voyage in question they were safely stowed and secured, but were broken in consequence of violent and continuous storms. It was contended that it was negligence to have stowed the cotton ties below the caustic soda, because the injurious result of the caustic soda falling down upon the cotton ties, if the drums should break, was well known.

Held, that under the circumstances of this case the negligence had not been proved.

In Admiralty.

Libel to recover damage to cotton ties alleged to have resulted from improper stowage.

Marshall & Fisher, for libelants.

John H. Thomas, for respondents.

Morris, D. J. The facts as I find them are as follows:

The libelants, Beard & Co., shipped in good order on the British steam-ship Burswell 21,600 bundles of iron cotton ties, (weighing over 500 tons,) to be carried from Liverpool to New Orleans. The steam-ship sailed from Liverpool on the thirteenth of May, 1881, and beginning with the next day encountered on the voyage a succession of storms, with almost continuous gales and heavy seas,

for 10 days. Her after steering wheel was carried away, her starboard quarter boat was smashed, the engine-house and other wood-work on deck was started, her rail was rolled under, large bodies of water were shipped on deck, and the ship rolled and labored heavily. This continued from the fourteenth to the twentieth, after which the rough weather abated, and the ship arrived in New Orleans on June 10th. When the ship arrived in New Orleans, protest was noted in due form by the master, and when the cargo was discharged it was found that about 3,000 bundles of the cotton ties were greatly damaged by coming in contact with eaustic soda.

The cargo was a general cargo of miscellaneous merchandise, and those of the cotton ties which were damaged were stowed in the hold under the second hatch. The cargo was stowed by a regular professional stevedore at Liverpool, and in the compartment under the second hatch I understood the goods to have been placed as follows: A quantity of scrap iron occupied more than half of the space of the hold. It was piled against the after bulk-head, the top of the pile reaching to the between-deck and sloping forward. It covered at the bottom about two-thirds of the distance from the after towards the forward bulk-head, and a portion of the forward slope of the pile was leveled to form a platform to place other goods upon. The bundles of cotton ties, which were six or seven feet in length, were placed lengthwise with the ship on the bottom, between the forward end of the bottom of the pile of scrap iron and the forward bulk-head. Resting on the leveled part of the pile of scrap iron. and resting on the cotton ties, and extending up against the forward bulk-head, were placed iron boiler-tubes, about three inches in diameter and twenty feet in length, forming a level platform, and on this platform boards were laid, making a sort of deck. On these boards were placed the one or two tiers of drums of caustic soda which caused the damage. The drums were laid on their sides lengthwise, and the tiers extended from side to side of the ship, and were chocked with wood and with scrap iron. The after ends were against the pile of scrap iron, which was trimmed up against them, and the forward ends were against two tiers of crates of earthenware, which filled up the space between them and the forward bulk-head. Boards were laid over the drums, and the rest of the hold was filled mostly with crates of earthenware and some tin.

On discharging the cargo it was found that some 15 of these drums of caustic soda were broken and their contents out, the platform on which they had rested was disarranged and the remainder of the drums were in great disorder. The contents of the broken drums had got down among the cotton ties and had greatly injured them. The drums in which the caustic soda was shipped are cylinders of sheet iron with sheet-iron heads, and intended to be air-tight. They are about 28 inches long and 18 inches in diameter. The molten caustic soda is poured into them through a hole in one of the heads about two inches in diameter, which is then closed tightly by screwing down an iron cap. When the contents have cooled, it becomes a hard, solid mass, similar to gypsum, which cannot be gotten out without destroying the drum. The caustic soda, when it comes in contact with the air by the breaking of the drums, gradually deliquesces, but it does not leak or sift out. The weight of each package is between 600 and 700 pounds, but the iron cylinders are suffi-

ciently strong to carry the contents with but little risk of breakage, so that it is a rare occurrence to find a broken drum at the end of any ordinary Atlantic voyage. The bill of lading contains the usual exemptions from damages from perils of the sea, breakage, or rust, and from damage from other goods, dangerous or otherwise, by contact, leakage, explosion, or otherwise.

From the pleadings and evidence it is to be presumed that the nature of the contents of the drums was known to the agents of the Caustic soda in iron drums is a well-known artiship at Liverpool. cle of commerce constantly shipped from that port in general cargoes, and it is not denied that the agents and officers of the ship knew exactly what it was they were taking on board. The destructive character of that chemical being well known, and the damage complained of having arisen from its contact with the cotton ties, the sole question on which the case depends is one of stowage. The manner in which the drums were placed and chocked is detailed in the evidence of the first officer of the steam-ship, under whose supervision the cargo was stowed by the stevedore at Liverpool, and it does not appear to me that there was anything inherently insecure in the manner in which the drums were placed and secured. The ship encountered storms of very unusual duration and severity, which for 10 days caused her to roll and labor to an extent which might well shift some portion of the cargo, although stowed with all the skill and care which experience could suggest. I am satisfied that the tiers of drums were well stowed, and that their breaking was due to the extraordinary rolling of the ship. Being laid in tiers across the ship, when she rolled to such an extent as to submerge her rail the whole weight of all the drums in the tier was brought down upon those which were against the submerged side, and this being repeated as the ship rolled from side to side, it is easy to see how they may have been crushed.

The libelants, however, contend that as it was known to the agents of the ship that if by any chance the caustic soda escaped, it would be destructive to the cotton ties if it came in contact with them, the caustic soda should have been placed in a different part of the ship, or, if placed in the same hold, it should have been placed beneath and not above the cotton ties, in which case it would not have fallen down upon and sifted through them, and the damage would in all probability have been much less. With the evidence before me of the tight and durable character of the iron drums in which the caustic soda was encased, and of the infrequency of their breaking, I do not see that it was want of proper prudence and foresight to have placed them in the same hold with the cotton ties. These iron drums are

altogether different from the light, wooden casks in which soda-ash and bleaching powders are packed for shipment, and from which fumes escape and dust sifts out to the injury of other cargo without any stress of weather. Mainwaring v. Bark Carrie Delap, 1 Fed. Rep. 874; Hamilton v. Bark Kate Irving, 5 Fed. Rep. 630; The St. Patrick, 7 Fed. Rep. 125. These drums are said to be durable, strong, and practically air-tight, the contents are solid and serve to strengthen and preserve them from injury, and they would seem to make as perfect a package of merchandise for safe shipment as could be devised.

The only remaining question, therefore, is, should the cotton ties or the caustic soda have been placed uppermost, and was it want of reasonable skill and attention to have placed the drums uppermost, as they were placed, knowing the damage that must come to the cotton ties if they were broken? On this point the evidence before me is meager, and a careful consideration of it, and of all the facts, as I understand them, has not convinced me that such stowage was negligence, or that the ship is answerable for the damage that ensued. In such a case as this, where a loss occurs from a peril of the sea, if it is contended that the damage might have been avoided by skill and negligence, the burden is on the party affirming the negligence to make it clearly appear. It is not sufficient if it is left doubtful. Clark v. Barnwell, 12 How. 280. The testimony which is most directly to this point is that of the witness Umbaugh, the head stevedore, in the port of Baltimore, of the Allen and the Bremen steamship lines. His experience of caustic soda is derived from discharging the ships of those lines, which, he states, constantly bring caustic soda to this port as part of general cargoes. He states that he always finds it put on the bottom of the ship, and by itself, and divided off from other cargo by dunnage of wood. That the drums are usually placed three or four tiers high, with a platform of wood on top, and light cargo on the platform; that the cargo put on top must not be too heavy, as it may burst the drums. In his testimony he seems to fall into some confusion as to the nature of caustic soda. which he says is a liquid which always to some extent leaks out of the drums, and which, when exposed to the air, becomes solid. error leads me to think that he may in some way have confused caustic soda with some other chemical-perhaps with soda-ash or bleaching powders.

It is apparent, however, I think, that to place the drums where they would have very heavy cargo piled on top of them would be attended with risk of their being crushed, and it does not seem at all improbable that if the 6,000 bundles of cotton ties which were in this hold, and which weighed 150 tons, had been placed above the drums there would have been a greater risk of damage. Possibly, the damage to the cotton ties might have been less, but as the testimony has satisfied me that the drums were reasonably safe from breakage as they were placed and secured, and would not have broken except from perils of the sea, I am disposed to think that all the cargo in that hold was safer than if the drums had been placed under the weight of the cotton ties. Indeed, as I understand the testimony of the first officer, the drums must have rested in greater part upon the scrap iron, and it was the scrap iron which was in greater part, if not altogether, immediately beneath them; so that, except for the violent and continued rolling which broke up the whole tier of drums into disorder, and broke up entirely the platform on which they were placed, the cotton ties would scarcely have been injured; for if only one or two drums had broken, without the platform being broken up, the contents would hardly have penetrated beyond the scrap iron. The cotton ties being of such weight that they could not with safety be placed on top of other cargo, it would appear that they must take the risk necessarily attending their being put on the bottom of the ship, provided the cargo placed above them is such as is customarily carried in a general ship with them, and is stowed with such reasonable skill, attention, and foresight as to be safe and not injurious to them, except under circumstances of extraordinary peril.

Libel dismissed.

BOYD v. CLARK.

(Circuit Court, E. D. Michigan. June, 1882

ADMIRALTY-APPEAL TO CIRCUIT COURT.

Admiralty causes arising upon the lakes, and tried by jury pursuant to Rev. St. \$ 566, are not reviewable upon writ of error, but may be re-examined upon appeal to the circuit court.

In Admiralt,

This was a suit by a father to recover damages for the death of his minor son, a deck hand on board the steamer Alaska, who was killed by the explosion of a boiler while she was on her regular trip to the Lake Erie islands. Defendant was the owner of the vessel, and was charged with personal negligence in allowing her to run with a de-