of the supreme court or of the circuit courts or courts of appeal to extend the effect of interference decisions as final adjudications, and we concur with the circuit court in the conclusion that, "while the decision in interference may be res adjudicata as to priority, it does not preclude defendant from raising other questions not in issue in said proceedings." The decree of the circuit court is reversed, with costs, and cause remitted with instructions to dismiss the bill.

EXCELSIOR ELEVATOR GUARD & HATCH COVER CO. v. FOOTE et al.

(Circuit Court of Appeals, Second Circuit, February 23, 1897.)

PATENTS-INVENTION-MECHANICAL SKILL-HOISTWAY COVERS. The Fraser patent, No. 278,528, for means for closing and controlling hoistway covers, consisting of a combination of a number of doors, a cord or chain, a number of catches, and a connection between the catch of one door and an adjacent door, so that the closing of the latter will release the former, and admit of its closing, is void, as showing mere mechanical skill in modifying the pre-existing Hackett devices (patent No. 260,675).

Appeal from the Circuit Court of the United States for the Southern District of New York.

This is an appeal from the circuit court, Southern district of New York, dismissing complainant's bill. 74 Fed. 792. The suit is brought for infringement of the first claims of United States patent 278,528, dated May 29, 1883, to Daniel Fraser, for "means for closing and controlling hoistway covers."

Clifton V. Edwards, for appellant.

S. O. Edmonds, for appellees.

Before LACOMBE and SHIPMAN, Circuit Judges.

LACOMBE, Circuit Judge. The specification sets forth that the improvement, so far as it is relevant to the issue in this suit, "consists in the combination with a number of hinged doors and a cord or chain for opening and closing them of a number of catches for engaging with the doors when opened, and serving to hold them open independently of the cord or chain, and a connection between the catch of one door and an adjacent door, so that the closing of the last-mentioned door will effect the release of the other door from its catch, and admit of its closing." The mechanism is intended for use in buildings where there are hatchways one above the other for several successive stories. All the doors of these hatchways may thus be opened or closed without it being necessary for the operator to leave the one floor, top or bottom, on which the operating windlass is located. The doors are opened or closed not all at the same time, but successively, thus avoiding excessive strain upon the operating rope. The catches hold the doors when open, so as also to relieve that rope of strain. The release of each catch only by the closing of the door ahead of it insures the certainty that when the last door of the series closes all the doors ahead of it in the series have also closed. The claim reads as follows:

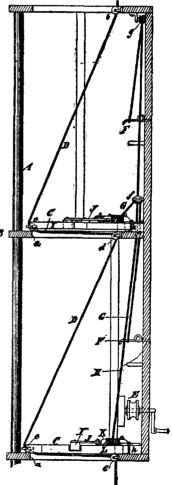
EXCELSIOR ELEVATOR GUARD & HATCH COVER CO. V. FOOTE. 443

"(1) The combination with a number of hinged doors and a cord or chain for opening and closing them of a number of catches for engaging with the doors when opened, and serving to hold them open independently of the cord or chain, and a connection between the catch of one door and an adjacent door, so that the closing of the last-mentioned door will effect the release of the other door from its catch, and admit of its closing, substantially as specified."

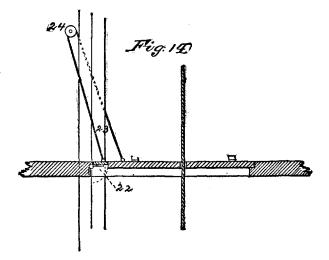
The operation of a series of hatchway doors by a single cord or chain, so that the operator need not leave the windlass on top or bottom floor, was old. It was old to so arrange the mechanism that the doors would open and close successively and relieve strain. It was old to hold the doors, when opened, by engaging catches independently of the chain. It was old to release the catches by a pull upon a cord which was convenient to the hand of the operator. All this is disclosed in a patent to Sinclair,—No. 84,387, November 24, 1868,

reissue No. $5,\overline{387}$, April 29, 1873, and it is conceded that the only novel feature which the patentee introduced in the structure is the "connection between the catch of one door and an adjacent door." This particular device is thus described in the patent:

"F designates catches arranged on the back of the hoistway, adapted to engage with projections on the front edges of the doors when the latter are raised, so as to secure them in upright positions, and relieve the chain or rope, D, of strain. These catches may be pivoted in place, and impelled downward at the forward end by springs or by weight; or they may have resilient shanks, as shown. To the upper catch is attached a cord, H, which passes around a pulley, g, U arranged on the back of the hoistway above, and thence down the hoistway, where it is secured to the door below, forward of its hinges. When it is desired to release the upper door, C, this cord, H, is pulled, so as to disengage its catch from it, and then the windlass, E, is turned, so as to pay out the chain or cord, and allow of the descent of the said door. To the catch of the lower door is attached a cord. G, which passes up the hoistway, around a pulley, f, arranged on the back of the hoistway, above the upper door, and thence to the upper door, for-ward of the hinges, where it is fastened. This cord, G, is so short that, just before the upper door closes, it pulls the cord suf-ficiently to effect the disengagement of the catch of the lower door from it. If, then, the windlass is turned so as to pay out the chain or rope, D, the lower door may be closed. The cord, H, is connected to the lower door, and operated by the closing of said door."



Connections between different members of a mechanical series, whereby some movement of one member will induce or permit a like movement in some other like member, are very old in the mechanic arts generally. The record here shows that such connections had been used in this particular art. (See Fig. 14 of United States patent to Hackett, No. 260,675, July 4, 1882.) The desirability of opening the catches of hatchway doors successively had also been made manifest. The device of the Sinclair patent opened them all simultaneously by a pull on a single rope. It was, therefore, modified in practice before the patent in suit by attaching a separate rope to each catch, and running the rope down through the several floors below the catch to which it was attached, so that the ends of all these ropes were convenient to the operator at the windlass. When he had lowered one door, he pulled the catch of the next, and lowered that, and so on till all were down. In view of the state of the art, we concur with the judge who heard the cause in the circuit court that there was no invention in turning each one of these ropes over one or more pulleys, and connecting it with a descending door, so that, as the latter closed, it would pull upon and lift the catch. The device in the Hackett patent, above referred to, was one whereby the opening and closing of a small door which covered that part of a hatchway that was located in the jamb between the vertical guide posts was effected by the opening or closing of the large door covering the main hatchway. The device is thus described:



"In some places this small door must of necessity open downward instead of upward; for instance, when a passageway is to be had on the level of the floor directly into the elevator from the side on which the small door is placed. In Fig. 14 will be seen a slight modification of the construction shown in the other figures, to meet this necessity. 22 is the small door. 23 is a small rope leading from its upper surface over a pulley, 24, placed at the side or rear of one of the guide posts, and down to the top side of the large door. When the large door is closed, the rope, 23, is taut, and holds up the door, 22, in a horizontal position. When the large door is raised upward, the cord, 23, slackening, permits the small door, 22, to pass downward out of the path of the elevator car."

The only criticism complainant's expert makes upon this device is that there is no indication in Hackett's patent that all the doors are down when the lowermost door is closed; and that it does not contain all the elements of the first claim of the Fraser patent, since "the catches and the connection between one door and the catch of an adjacent door, so that the closing of the last-mentioned door will effect the release of the other from its catch and admit of its closing, are lacking." Undoubtedly Hackett's device is no anticipation of Fraser's, but it is a part of the art, which must be assumed to be familiar to every one who subsequent to 1882 undertook to modify or improve hatchway door closing devices. The modified form of Sinclair's mechanism pointed out the desirability of opening the catches successivelv. The advantages of doing this automatically instead of by successive pulls by the operator on a number of different cords was surely self-evident, and, that being the problem, it certainly did not require more than the ordinary skill of the mechanic to adapt Hackett's connection between two doors to serve as a connection between door and catch. The decree of the circuit court is affirmed, with costs.

THE GLADIATOR.

NEW BEDFORD STEAM COASTING CORP. v. NICKERSON.

(Circuit Court of Appeals, First Circuit. March 23, 1897.)

1. Collision — Tug and Tows in Narrow Channel — Collision with Lightship.

A tug, with several tows on long hawsers, the whole fleet being about 2,490 feet long, bound from Boston to New York, *held* in fault in going to the northward of the Pollock Rip lightship, though this is the usual course of tugs with tows, where she was compelled to attempt a long swing of her tow under adverse wind and tide through a channel much narrower than the length of her tow, so that the last tow was brought in collision with the lightship, it appearing that there was abundant room and water for passing to the southward of the lightship. *Held*, further, that the tow was also in fault in failing to put her helm hard to port until within nearly a length from the lightship.

2. SAME—CONSEQUENCE OF COLLISION—BURDEN OF PROOF.

It is the duty of a vessel injured through the fault of another to use reasonable diligence to diminish the consequences of the injury; but the party in fault has the burden of showing that the actual results of his fault, as they in fact occurred, might have been diminished by such diligence. If it appear, however, that no efforts were made to mitigate the loss, when there was a reasonable probability that it might have been mitigated, this omission, under some circumstances, raises such a presumption as relieves the original wrongdoer from showing by strict proof that the ultimate result could in fact have been avoided.

Appeal from the District Court of the United States for the District of Massachusetts.