

is given to keep the gear in order. Its very simplicity is its greatest recommendation. It can be lowered by one man at all times and in all weathers with the whole crew in it. The boat descends from the davits on an even keel, and if the ship is going through the water even slowly frees itself immediately, the pendants tapering at the ends unreeve from the barrel without any assistance. There is no fear of the pendants kinking, nor will they jam in the block or gin, if made of good soft-laid Italian hemp or bolt rope of good quality. Of course, as in all other similar fittings, the material used for lowering is of importance; and if shipowners, from motives of economy or for the sake of evading the patentee's rights, are allowed to use tackle which may be worn or out of order, there may be occasions when the apparatus would not be so efficient as it otherwise would be. But in boats fitted by the patentee, examined by him after each voyage, and if anything be then found worn or not likely to last the voyage replaced by new, and if the boats and their gear are then kept in proper order during the voyage, I do not believe it possible for them to fail when wanted.

I have tried the apparatus myself continuously from the time it was first brought out by Clifford, when, on the recommendation of Captain Lean, then Emigration Officer at London, and myself, it was adopted by Her Majesty's Emigration Commissioners, and the fitting of two boats with the gear made compulsory in all their chartered ships. I have seen boats lowered from ships going at all rates of speed, in tow of steamers and otherwise, without any previous warning to the crews, and never knew it to fail. I have had numerous communications from captains of ships and others, testifying to its efficiency, and I should be very sorry to see it struck out from the requirements of the charter-party, as I consider it one of the most essential fittings in passenger ships.

It is but justice to the patentee to forward herewith printed copies of letters recently received by him: one from the captain of the "Woodlark," one from the captain of the "Jessie Osborne" (both of which ships have been under charter to the New Zealand Government), and extract from the *Cape Standard and Mail*, as well as a woodcut of the plan of lowering, with testimonials at the back.

With regard to Douglas's patent, I have only seen the model, which appears to work easily, but the patent, as I told Mr. Douglas when he showed me the model, is no novelty, as it is similar to a plan which I had seen fitted in boats years ago, when I was Emigration Officer at Southampton. One objection that I have to his plan is that it is not a lowering but only a disengaging apparatus, that the act of lowering is not, as in Clifford's, the act of one man in the boat, but is the work of two different men, who may (from various reasons) not be acting in concert as the falls are slacked off from on board the ship, and the men do not see the speed at which both ends of the boat are lowering, the result frequently being that one end of the boat is in or nearly in the water before the other end is half-way down, and in such a position I should doubt whether the disengaging gear would act, or whether at such an angle the lever would not jam and refuse to free the boat. In such an event, were a sea to strike the boat, all hands must be thrown out, even if the boat herself were not also perfectly disabled. I regret that I have not detailed drawings of Douglas's plan to enclose, but enclose the only drawing which I have.

Recently my attention has been called to a boat-lowering and detaching apparatus patented by Messrs. Hill and Clark (book, &c., published by them herewith enclosed). This patent is, I believe, now extensively used in Her Majesty's Navy, and finds favour with a great many naval men; it is preferable to Douglas's, as the hooks (which was the original part of the patent) are automatic and free themselves as soon as the boat is water-borne. If this alone were its recommendation, I should hesitate to signify approval of the patent, but Messrs. Hill and Clark have lately added a plan of marrying the boats-falls, and by passing them after marriage over and under rollers, or as they term them thumb-blocks, fixed to the bulwarks, thus insure the boat being lowered on an even keel, and under the control of one man, and as soon as the boat is water-borne the hooks fall and the boat is free. There is no doubt in my mind that Messrs. Hill and Clark have got their idea of this controller from Clifford's gin block, only they place their rollers or thumb blocks horizontally, instead of, as Clifford's gin blocks, vertically, still they obtain the same control by one man over the lowering of the boat evenly, and it is free as soon as water-borne. I see no objection to one life-boat being fitted with this patent, if it is the wish of the Government to try other plans than Clifford's; but, as I observed previously, I should very much regret to see Clifford's given up, as I know from experience that it is most efficient.

Messrs. Hill and Clark enclose with their book, a letter from Thomas Gray, Assistant Secretary of the Marine Department of the Board of Trade. This may at first sight be taken as a recommendation of their patent; but the same remarks Mr. Gray makes, "that he has no reason to think the invention has proved other than satisfactory," &c., apply equally to Douglas's and Clifford's.

Sir Julius Vogel, K.C.M.G.,
Agent-General for New Zealand.

I have, &c.,
EDWARD A. SMITH, R.N.,
Despatching Officer.

Enclosure 2 in No. 27.

Mr. J. GALBRAITH to the AGENT-GENERAL.

DEAR SIR,—

8, Austin Friars, London, E.C., 29th January, 1877.

I have not been able to be at business for some days, otherwise I would have communicated with you sooner on the matter of lowering boats, brought before me by Mr. Ottywell. We have ships fitted with the patent gear of Clifford, Hill and Clark, and Douglas. Some of our captains report more favourably of the one than of the other of these; but on the whole, as far as I can judge, I would be disposed to give the preference to Clifford's, combining as it does the best method of lowering as well as disengaging. The plan of Douglas for disengaging is very simple and perfectly efficient for this object, but in a sudden emergency, and consequent hurry and sometimes confusion, there is a liability of the trigger being acted upon before it should be. It is but fair, however, to state that some of our captains have expressed an opinion in favour of this patent over the others.

The Agent-General for New Zealand.

I have, &c.,
JAMES GALBRAITH.