## REPORT OF PROCEEDINGS OF THE CONFERENCE.

the seaworthiness of ships. Take the case of an owner of a steamer who requires a master. A man offers himself who is in the prime of life, perhaps 50 years of age, who has a good character and has had a good character; he is taken on the strength of a Board of Trade certificate issued 30 years before. No owner, so far as I know, ever asks the man to have his eyes re-examined, and there is no provision by law. Such defects may have arisen that this man may be quite unfit to go to sea. There are a great many disasters at sea, collisions and strandings, which occur under circumstances which to landsmen are unexplainable; we see cases of collisions and strandings under circumstances which we cannot account for. My opinion is that many of these cases are due to defective eyesight.

Mr. PEMBROKE: We have the New Zealand captains' eyesight tested every two years.

MR. MILLS: The question of eyesight efficiency should be considered in regard to seaworthiness, and I propose to move as follows, as an addition to the motion, or as a separate motion, whichever is thought desirable: "That "in determining questions of seaworthiness, consideration be given whether suitable precautions have been taken to ascertain the efficiency of officers in regard to eyesight." The motion of Sir Joseph Ward is declaratory; it does not ask for any standard; it merely asks the Board of Trade to impose a higher standard, and to reject this motion would be practically to affirm that a high standard of efficiency is not necessary. That cannot be contended for a moment. Eyesight efficiency is more important chan an extra few feet of accommodation, or even improvement in the matter of food. I do not know that I need say any more. I think there is a responsibility in this matter on the officials of the Board of Trade, and there is also responsibility on shipowners. Speaking for myself, when it became necessary to go into the matter after this deliverance by the Inter-Colonial Medical Congress of Australasia, and repeated by them, I adopted eleven years ago the eyesight test which has been carried out during this period in the service which I represent. It is a standard somewhat on the lines of that adopted in the navy. But there is this proviso, that general health, eyesight, and hearing will be tested on joining the service, and at the ages of 30, 35, 40, 45, 50—in fact, every five years. In the event of an officer failing to pass the company's test before the ordinary examiners, he is allowed to appeal to an expert, approved by the examiners. I cannot too strongly impress the importance of this question of eyesight examination upon the Conference. As I say, I think that the governing bodies, the Board of Trade, or the Commonwealth and New Zealand should make it imperative, and make it practically a condition of seaworthiness.

SIR WILLIAM LYNE: Just two or three words. Of course this is done in connection with our railways. The Government railways in Australia have been very severe during the last few years on the colour and eyesight tests. They held an examination in New South Wales last year, with the result that a large number of drivers and guards have had to be made conductors and given work in other ways, because their eyesight would not stand the test. Now what applies to trains applies to some extent to shipping, especially where you have the ships going at a high rate of speed, as you have in certain parts. I certainly think that the proposal which has been made by Sir Joseph Ward and supported by Mr. Mills is not one which could reasonably be objected to. But I want to ask those connected with the Board of Trade this: if it came to their knowledge that a ship's officer was colour blind, what steps could the Board of Trade take to prevent his continuing as an officer, and how could they legally punish him?

 $M_{R}.$  WALTER J. HOWELL: I will explain that directly.

SIR WILLIAM LYNE: Because I am informed that in Victoria a case took place some little time ago where a man was found to be colour defective, and an attempt was made to prosecute him. In fact, he was prosecuted, but they could not do anything to him. Mr. Mills has just reminded me in connection with the wreck of the "Australia" at the entrance to Queenstown, that in consequence of the evidence which was given with regard to

the bye-laws they have now adopted a very severe test for the sight of pilots. That test is just as necessary for those in charge of the ship as it is for the pilots, because certain point. Under those circumstances I very strongly the pilots are in charge of a ship only when she gets to a support the proposal with regard to this test. Perhaps the Board of Trade, and the Government too, will see that it is necessary to have this matter very thoroughly gone into and dealt with. Mr. Mills speaks as a large shipowner, and he knows more than I do about this question. He speaks from the experience of a lifetime, knowing what they have done in regard to their lines of steamers for their own protection. If it is necessary for them to take those steps, surely it is necessary for the Board of Trade to have some sort of test, and some means by which they can prevent owners from employing men or keeping them on their ships when they may be a source of danger to the passengers.

SIR JOSEPH WARD: I would suggest the word "general" instead of "higher," in the resolution—"imposing a general standard of efficiency."

THE CHAIRMAN: Yes—"with a view to imposing "a general standard of efficiency."

Mr. MILLS: You have that already. They contend that the present standard is adequate; we say it is not.

HON. DUGALD THOMSON: But we do not know what the standard is. It may be too high.

SIR WILLIAM LYNE: In the new Bill we have prepared we have this provision: "If at any time the "holder of any certificate appears to be physically unfit "to perform the duties required of him, the Minister may "require him to submit himself for medical examination," and then if it appears that the unfitness exists and is likely to be permanent he can be dealt with.

THE CHAIRMAN: I think Mr. Walter Howell had better reply now.

MR. WALTER J. HOWELL: The subject which is dealt with in this resolution is, of course, most important. That has been admitted by the Board of Trade, and it has had for several years a very careful system of examination in force in this country. In 1877, the Board of Trade made the passing of a colour vision test a necessity for all candidates for examination. The test then instituted was by means of coloured cards and glasses, the object being to determine whether the examinee could distinguish satisfactorily the colours used most frequently in the combination of signals employed at sea. In 1890 there were a good many complaints made by doctors urging the Board of Trade to adopt a different system of tests, and the Board of Trade invoked the aid of the highest scientific body in the country, the Royal Society, and in 1890 the Council of the Royal Society, appointed a Committee on Colour Vision, consisting of gentlemen of the highest scientific attainments. Among them I may mention Lord Rayleigh, who was the Chairman, Lord Kelvin, Professor (afterwards Sir Michael) Foster, Mr. Francis Galton, Sir George Stokes, and Captain (now Sir William) Abney, who is, I believe, recognised as one of the greatest authorities on colour blindness in this country. After carrying out a thorough investigation, not merely with regard to colour vision, but also with regard to form vision, and so on, not only as regards the mercantile marine, but as regards railways, the Committee came to a unanimous report. The Board of Trade at once had that report presented to both Houses of Parliament. That was in June, 1892. In 1894, the Board, following the unanimous recommendations of the Committee, instituted the present system of testing the colour vision of candidates by means of Holmgren's sets of wools, this being the test recommended by the Committee from among the various methods which came under their consideration. I shall be happy to circulate among the members of the Conference copies of the report of that Committee. It is an excee