

tity of water. These I returned to the bowl, and paid no further attention to them until six hours afterwards. I then noticed that the two which had received the tonic showed a marked improvement, and were swimming on their sides nearly at the top of the water. I then changed the water and administered the same amount of brandy as before. On the following morning, thirteen hours after the first administration of brandy and seven hours after the second dose, the two fish in question were apparently fully restored, and were swimming naturally and actively about the bowl. The restoration proved to be complete.

UNITED STATES FISH COMMISSION,

Washington, D. C., January 4, 1884.

93.—LOSS OF LIFE AND PROPERTY IN THE GLOUCESTER FISHERIES.

By Capt. J. W. COLLINS.

I beg to submit the following statement of the losses, from Gloucester, of life and property in the New England fisheries during the past ten years, first saying that there is no available source from which to obtain similar facts relative to the fishing fleets of other New England coast towns. The period covered by the statistics I give is from 1874 to 1883, inclusive, during which time Gloucester has had a fleet of, approximately, 400 fishing vessels, carrying about 4,300 to 4,800 men. About one-half to possibly three-fourths of this fleet has been engaged in some branch of the winter fisheries, the rest of the vessels being hauled up for about five months of the year.

In the ten years mentioned the total loss of vessels has been 147, of which number 82 have foundered at sea, 7 of the latter having been abandoned in a sinking condition. The total value of these vessels was \$735,126. The total loss of life has been 1,233 men, 895 of whom went down in their vessels, which foundered at sea. It is a little difficult to get at the exact number of bereaved families which lost their natural protectors, since for one or two years of the period under consideration accurate record was not kept of the widows and fatherless children left by these disasters at sea, and even if it had been it would not show how many almost helpless parents have been deprived of their only means of support. As near as I can get at it—making what I believe to be an underestimate for the years of which I can obtain no statistics of the widows and children left—322 women have been made widows, and 658 children left fatherless by the disasters to the Gloucester fleet alone. Many of these families, have been left in utter destitution.

There can be but little doubt that upwards of 75 per cent of the vessels lost at sea meet with an untimely fate simply because they are too shallow; the consequence being that when caught in a gale they are

liable to be thrown on their beam ends, and, not being able to right because of their shallowness, fill and sink. In a single gale, that of December 9 and 10, 1876, no less than five Gloucester schooners were knocked down and barely escaped sinking. Three of them were distasted, two of which were abandoned, one went into Liverpool, Nova Scotia, under a jury-rig, while the others were not so badly damaged. The inference is that other vessels which foundered in the same gale, and those that have been lost at sea on other occasions, were knocked down in a similar manner, and, failing to right again, soon sunk. Of course, with a deeper body to the vessels, and the ballast placed lower, there would be far less probability of such a mishap occurring, and even should it happen the chances would be a hundred to one that the vessel would right again.

It is, therefore, altogether probable that the introduction of deeper fishing vessels in New England would save for Gloucester alone somewhere about \$30,000 to \$50,000 per year, besides a large number of lives.

As an instance showing how terrible the loss is sometimes, I will say that from the 29th of August to the last of December, 1883, 16 vessels from Gloucester foundered at sea, carrying down with them 205 men, while the loss of property was little less than \$100,000.

GLOUCESTER, MASS., *February 21, 1884.*

94.—LOSS OF LIFE AND PROPERTY IN THE FISHERIES.

By R. B. FORBES.

I have perused with great interest the statements on the subject of the loss of life among the fishermen of Gloucester. The loss of 447 vessels and 2,600 lives in fifty-four years ending in 1884 is fearful to contemplate. In 22 years ending this year the number of men lost was 2,140. There must be some cause for this large increase. It may be presumed that the increase of the number of vessels in the business accounts for the increased loss of lives in a great degree. Another cause must be the fact that the vessels are more crowded. Another prominent cause must be the fact that trawl-fishing in dories necessarily exposes the men to greater danger than hand-fishing. I have before me a long list of men who have been separated from their vessels; many of these have been lost, while some have been rescued in a starving condition. No regular rule has been established for furnishing dories with condensed food and means for cooking. This should be done. Mr. D. W. Low, of Gloucester, has contrived means not only to feed persons, but to enable them to right their dories and to cling to them when capsized. If the owners of fishing craft do not feel interest enough to encourage the use of these means, there should be a law to compel them to do so; and if a