

125.—PROPOSITION TO PREPARE KINGFISH BY SMOKING.**By Capt. J. W. COLLINS.**

While at Key West I noticed that such of the kingfish as could not be sold fresh were salted. The greater part of this salted fish is dried in an unsystematic manner, and so prepared makes rather an indifferent article of food. It occurs to me that perhaps a very excellent article of food may be obtained by smoking the kingfish, which I believe may be found well adapted to this method of curing; if so, then an important result will have been obtained. The fish are abundant, can be bought for about 1 cent per pound, and consequently could be put on the market at a very reasonable figure, while, if found practicable, such a method of curing would in a large measure relieve the Key West fishermen from too great a dependence on the Cuban markets, would probably tend to enhance somewhat the price of fish, and would ultimately result in a very important addition to the fleet and men engaged in catching kingfish. The best methods of utilizing the wealth of the seas around these southern coasts seem to me a matter that deserves some attention.

As a means of making a practical test of the kingfish, I suggest that 100 pounds be procured at Key West when the ship arrives there, and brought to Washington, whence it could be sent somewhere to be smoked. The opinion of a few practical men—fish dealers, catchers, &c.—would then settle the question.

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*New Orleans, La., February 25, 1885.***126.—THE HARVEST OF THE SEA.**

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If Mulhall's statistics are reliable, there are not far short of 150,000 vessels engaged in Europe and North America in fishing. Between 600,000 and 700,000 men are employed in this industry, and the total annual product of fish is not far short of 1,500,000 tons. Few people realize the full meaning of these latter figures. A ton of fish is equal in weight to about 28 sheep, and hence, if Mulhall's estimate is approximately correct, a year's fish supply for ten European countries, included in this estimate, and the United States and Canada, might be represented by 42,000,000 sheep. Of this amount the United Kingdom, Canada, Russia, and the United States, alone, aggregate 1,000,000 tons, equivalent to 28,000,000 sheep.

It has been truly said that we talk in a metaphor of the "harvest of the sea," but we have only lately been able to realize all that the metaphor means. The Fisheries Exhibition in London in 1883 did a great deal to encourage the study of marine biology, and it is with no small

degree of satisfaction that we are able to say that in this much-needed work the United States ranks second to no other country. On the other hand, Great Britain, whose fisheries are of vital importance to her for food, has done little, and cannot yet boast a laboratory on the sea-shore. Indeed, Professor Lankester, an eminent authority on marine biology, declares the British fishing industries still barbaric. The produce of the sea is recklessly seized, regardless of the consequences of the method, the time, or the extent of depredations.

According to an English authority, the old proverb that "there are as good fish in the sea as ever came out of it" no longer holds good. The harvests of the sea in the future, like the harvests on land, will need cultivating. It was shown, not long ago, that in eight months 28 boats engaged in the haddock fishery at Ryemouth, England, used 620 tons of mussels—about 47,000,000 mussels—in the capture of haddock. Yet Professor Lankester says that no pains are taken in England to cultivate or preserve the mussel, and knowledge of its reproduction and growth is still incomplete, as it is of other bait. Soles are every year becoming scarcer, and oysters are becoming more difficult to obtain. At present, says this same authority, absolutely nothing is known as to the spawning of the sole; and the male fish is not even recognized. The reason for oysters being scarce is not known, nor how to make them abundant.

There are many economists in England who maintain that the haphazard and improvident methods of fishing are exhausting the fish supply of that country as surely as the mining is exhausting the supply of coal. The supply of many kinds of fish is rapidly diminishing, and the only way to check the waste is by systematic study of the conditions which regulate the supply. It is undoubtedly true that "the world could not be fed if men sought their food on land with as little forethought and system as fishermen cast their nets into the sea." To what extent these facts, which are causing considerable discussion in England, apply to the United States, we are not prepared to say. The excellent work for many years of our Fish Commission exonerates our Government from the charge of total neglect of this important industry. Several States have fish commissioners, and, together with the National Government, have accomplished much useful work in the artificial breeding of codfish, shad, oysters, &c. Indeed the production of fish all over the United States has undoubtedly been largely increased by scientific research. It is not improbable that the annual fish product at present in the United States is equivalent to from 4,500,000 to 5,000,000 sheep. With the increasing demand for food, and with abundant evidence from other countries of the result of neglect, we should rather increase than relax our efforts to understand more about the food, habits, spawning, and propagation of our fish, in rivers, lakes, and the sea, in order that the harvest may not grow less as the demand becomes more urgent.