

I began work with five assistants, only one of the number having ever seen a shad egg taken before; but after a short time, in which I explained the *modus operandi* of shad-stripping, by going through the process with a ripe shad in the presence of those who had no knowledge of the work, they became familiar with the method and lost no eggs that came in their reach.

While I was aware of the small number of fish released in comparison with our necessities and the work accomplished by other States, yet, in view of all the surroundings and the amount of money expended, the season's work was highly gratifying; and a reasonable hope may be entertained that we will be able in a few years to increase the capacity of this station, so that the Edisto may be abundantly stocked and shipments made to other rivers. A few fishermen make their appearance on the river the latter part of January, and by the 15th of February they are all at their accustomed localities and the season is in full blast, and continues till the first week in April, when the shad become scarce and the gar-fish so numerous and destructive to the nets that the fishermen are compelled to abandon further operations and surrender the river to them. Their work of destruction is so sure and well-known that it has become a custom among the fishermen to raise a white flag over their camps when these fish appear—which is a signal of surrender—and in a few days' time they are abandoned. I opened the hatching-house here about the first of March and ordered the "McDonald automatic glass hatching jar"; but, owing to delays at the manufacturer's, I did not receive them till late in the season, and so had to use the tin cans that were on hand.

After the receipt of the jars the percentage of eggs hatched was much better, and had I begun the season with them the number of fish released would have been greater. We are indebted to Colonel McDonald, of Virginia, the inventor, for this jar, which far surpasses any other apparatus for shad-hatching that fish-culturists have yet known.

78.—REPORT ON CALIFORNIA TROUT DISTRIBUTION IN SOUTH CAROLINA IN 1883.

By C. J. HUSKE,

Superintendent of Fish and Fisheries.

On application to Professor Baird for a supply of California trout eggs, he sent me 5,000 eggs from the trout hatchery on McCloud River, California. I had previously prepared two temporary hatching-troughs in the department building at Columbia for their reception. They came to hand on the 8th of March, and, being engaged at the shad station, I was compelled to intrust them to the care of a novice, after having carefully unpacked and planted them in the troughs and devot-

ing two days to his instruction as to the care of the eggs. He was devoted and faithful in his attention, and although never having seen an egg hatched before, and laboring under many disadvantages—high temperature of water, &c.—he succeeded in saving 1,700 fish, which number, the second week in April, I placed in the pond of Dr. Fahnestock, near Walhalla, who had kindly tendered me the use of it until the necessary ponds can be constructed to keep them in. From these fish I hope to obtain a stock from which we will be able to supply the streams of the mountain section of our State, which are well adapted to the requirements of the California trout (*Salmo irideus*). In addition to this lot, in May I obtained 9,000 of the same trout from the Government, which were turned over to me by the United States messenger at Seneca, from which point I transported them in person a distance of 25 miles over the mountains by private conveyance, and planted them in fine condition (with the exception of 1,000 lost *en route* from Washington) in the Chatooga River, on the South Carolina and Georgia line.

79.—SHAD FISHING ON THE EDISTO RIVER.

By C. J. HUSKE,

Superintendent of Fish and Fisheries of South Carolina.

[From a letter to Prof. S. F. Baird.]

I have finished the season's work on Edisto River, having taken a total of 440,000 eggs, from which I released 334,000 fry, all in fine condition. This is less than one-half of last year's product; but still with the small plants I am able to make the fishermen say they are now taking fish that were planted by us. At least 1,000,000 eggs were lost by a deficiency of buck fish, which deficiency was caused by the large size mesh used by the gilliers. There is one seine beach on the river, which if I can fish myself, I am satisfied I can increase the take of eggs to 2,000,000 a season. This in a few years should make Edisto River a good station. This is my only hope. The cost of the season's work at present is about \$300.

In view of the small number of eggs that we can get in the State, we are compelled to fall back on the generosity of the Government Commission for our supply for other rivers. Will it be practicable for you to furnish me with the eggs, sent by express to Columbia, instead of the fry that South Carolina usually received? I see that you made successful shipments of shad eggs to North Carolina last season. If you can send me three or four hundred thousand a week, I can hatch them out here and plant them in Congaree River.

COLUMBIA, S. C., April 8, 1884.