

## LIGHT RODS FOR SALT WATER.

*Editor Forest and Stream:*

Let me welcome "A. E. C." Perhaps we who have always hold that given the light rod and tackle there is almost if not quite as much sport to be found in salt water as fresh water, is gaining converts at last. A small enough array are we, laughed or at least smiled at by both salt-water anglers of the general run, and by our brethren of the fresh water and brooks; but the proof of the pudding is in the eating, and we who fish with light pliable rod and thinnest tackle want no approbation from others.

Years ago I turned some attention to the question, having become more and more dissatisfied with the heavy rods generally used; and as the result of my cogitations I entrusted my tackle dealer with the duty of making a rod for the purpose of salt-water angling. I left the weight to his discretion, as also all other details, as to stiffness, etc., simply telling him I wanted one as much like a black bass rod of medium weight for bait-fishing as practicable. What was the result? He took advantage of the clause "as practicable" and made a stiff, though light rod which had the most unearthly bend, threatening at every strike to break, yet at the crisis recovering almost by a miracle. It gave as much play as a 3lb. hop pole. I discarded it and tried from that time on many rods in succession, yet never succeeded in getting one exactly right. I have tried rods of lancewood, greenheart, etc. (not made to order), of all weights from 16 to 6oz., but none were suitable. Some were too stiff, others too pliable. If I had had the tackle dealer make another one to order I could, no doubt, have been suited much sooner, although I am satisfied at last, that is, since last year. I had a very light and remarkably well-made trout rod, weighing only about 6oz. It was of split bamboo and was just a tantalizer to me. Time to go trouting I had none, having only one or two days at intervals in which I could escape business. So I stopped to consider what could be done with it. One day I took it to Sheephead Bay to see what could be done with it in casting, intending to meet a friend (a splendid fly-caster), who wished to use the rod in a tournament. He had not arrived so I laid the rod in the boat and went fishing. I had no notion of using it, but angled with my heavy rod, with, however, very poor success. Through ennui I rigged up the light rod with a squid hook and soon had the pleasure of making fast to a large sea bass, and, as he happened to be a good game fellow, I had quite a lot of fun. After that I used this light rod (it weighed just 5½oz.) but soon found it was too pliable altogether and could only be used in slack water, being useless in a tide-way. Now, as it behaved so well in slack water I felt very loth to discard it like the rest, so I had the thin tip taken off and on the middle or second joint put an agate tip, making a remarkably light two-joint split bamboo rod. This suits me exactly. It is stiff enough to carry some lead in a tide-way without bending materially, and yet so pliable that when a fish takes the hook you feel, after he is landed, more as if you were his conqueror and not his murderer.

On such a rod weakfishing is inferior to none and becomes the true thrilling sport. Let me assure "A. E. C." that I had no trouble at all by either losing fish, getting the line tangled round stakes or any other difficulty, and so I think I can answer his question by saying that a weakfish can be taken like a black bass, not forgetting even the bass fly, for I often use that instead of the squid. I don't mean that I cast the fly, but I use it in still-fishing submerged and bait the hook besides.

Why don't you, Mr. Editor, give us poor struggling anglers a lift? Of the thousands who love the art, how few are there who have the time or wealth to follow it, and how many would not welcome any news of true sport from salt water? The average salt-water angler I know has screwed the sport down to slaughter. The more reason, then, for you to help us who are trying to build it up. Open your columns to the experience of true anglers who have tried salt, you have been and are so liberal in all other matter, be liberal in this also. Give us a chance. Don't be so silent about our doings, which is as bad almost or worse than decrying us or fighting us. You are looked up to by so many sportsmen as an authority, that any words you say in encouragement will be certain to find response and belief. Ah, what game lies hidden in salt water. The gamy weakfish and kingfish first on the list, the resistless sheephead, last, but not least by a great sight, the striped bass. (By the way, why does every one persist in pronouncing the poor fellow stripe'd bass?) And in deep water I have had very fine sport with the sculpin, sea-robins, gurnard, or whatever other name the rosy-winged little marine butterfly may go by.

There is one trouble about fishing in salt water with a light rod; you are liable to get dogfish and fluke, which are unmitigated nuisances, being almost as hard on fine tackle as skates. But have not fresh-water anglers the pike and pickerel to look out for? So perhaps both sides balance here. Salt and fresh-water fish do seem to be counterparts to some extent. Weakfish fight very much like trout. Large bluefish often fight like black bass, leaping again and again from the water. Striped bass are much like salmon in some points. Fluke resemble pike and pickerel in voraciousness, mode of taking the hook and their way of fighting; as with pike, there seems to be no limit to their weight, and I have often taken them with pike spoons. I have a pair of fluke jaws at home which look more like a shark's than any other fish's, and are about as large as a small-sized handsaw. That is another point about sea angling which captivates its votaries. There is the delightful and exciting probability of getting those big ten and fifteen-pounders. Except, however, in the way of fluke (which I have taken of great weight), I have never made fast to any very large fish, and the few times I did almost excite me yet. Once I had a fish or a locomotive on the end of some heavy Cuttyhunk tackle and rod which two of us could not hold. That fish pulled one man who caught the line half way overboard, and myself nearly so, when luckily the line parted. Five minutes afterward I had another strike and got him. I don't know how much he weighed, as we omitted doing that, but I know it took two of us to hold him down after he lay in the boat, which he half filled.

But now, before my snow-white reputation gets dangerously tarnished, I will close. Yours, in hopes of sympathy,  
J. W. MULLER.

[The FOREST AND STREAM'S columns are always open to the salt-water anglers, and the reason the sport is not more frequently represented is only that those who find in sea angling a most charming pastime do not oftener write their experiences for publication.]

**DON'T USE YOUR LEG FOR A FISH POLE.**—*Editor Forest and Stream:* The above advice may seem superfluous, but it will perhaps be better appreciated after an experience like one which I had last Monday morning in Prince's Bay. The weakfish suddenly stopped biting, and even the sea robins and dogfish quit bothering me. Thinking that it would be fun to get a few crabs, I picked up a good-sized dogfish, split him through the middle and fastened him on a big hook and strong piece of trolling line. Attaching a half pound sinker to the line, I threw it overboard and took a couple of hitches about my leg. Then I went to fishing again with my rod. In the midst of a quiet reverie which followed I was astonished at seeing my leg go over the gunwale and to find myself yanked off the seat and sliding along the bottom of the boat. I had time to brace myself and prepare to have my sins come back to me, when all at once the line slackened. He had bitten it in two. My leg shows a black and blue streak the line sawed on it. Next week I'm going down again rigged for sharks, but I'm not going to tie a bait to both ends of the line any more. The question for the debating society is, which one of us escaped?—MARK WEST.

**METAPEDIA SALMON AND SEA TROUT.**—*Mic-Mac Salmon Club, Metapedia, P. Q., Aug. 1.*—*Editor Forest and Stream:* The salmon fishing in this region has not been so good as last year. Early in the season the catch was very fair and some good-sized fish were taken. Dr. and Mrs. J. H. Baxter, of Washington, scored some very large fish—30-34lb.—during the last week in June. Mr. Dean Sage, of Albany, N. Y., and his friend, Mr. Laurence, killed over a hundred fair-sized fish at his camp up the Restigouche, at the mouth of the Upsalquitch. The members of the Restigouche Club, at Metapedia, have done fairly well. Sea trout are now running of good size. I have taken them fresh-run and silvery, and in all the various stages of transformation of coloring, until they cannot be distinguished from the ordinary brook trout in coloration. There are no specific differences whatever; they are one and the same fish, as I have heretofore averred. My friend, Dr. Dawson, of Cincinnati, O., and I start to-morrow for some newly opened brook trout waters on the Batican River, a hundred miles north of Quebec, where the trout are said to rival those of the Nepigon in size and numbers. More anon.—J. A. HENSHALL.

**A POT-HOLE INCIDENT.**—Place, Wild River, Me.; scene, two fishermen on a ledge above a pot-hole. We had just arrived. H., as a preliminary, caught his fly in a hemlock, and I had taken in two quarter-pounders out of the wet, and no more would rise to all our wiles; so putting a worm on the end of our flies, we dropped them deep toward a "big un." "Big un" ignored it; not so a baby trout, which seized and wrestled with mine mightily. I was drawing it away, when out rushed the pounder and seized the infant and sailed away down the pool with the fly still in the latter's mouth. Now for it. If he swallows one he must the other! When lo! out rushed a larger trout and chased him around the pool. The fly shook out, the little trout vanished and my hopes with it, while the largest one, mad at losing his dinner, snapped at H.'s bait, and then there was a rumpus. H. fairly hugged him when 'twas landed, but I've been in the dumps ever since. If only I'd caught that cannibal!—JOHN PRESTON TRUE.

**SPORTSMEN AND CANADIAN CUSTOMS.**—Agency of Department of Marine, Quebec.—*Editor Forest and Stream:* In answer to your letter I beg to state that I have seen our collector of customs, and learn that guns, fishing tackle, etc., are subject to duty: Firearms, 20 per cent. Flies, etc., 25 per cent. Fishing rods, 30 per cent. Nets, free. But if parties visiting Canada for sporting purposes will deposit with the collector of customs, at the first port of entry, the amount of duty, it will be returned to them when they go out of the country again; or if they know any responsible Canadian at such port of entry, he will be accepted as security that duty will be paid unless articles again go out of the country in a reasonable time.—J. U. GREGORY.

**RAQUETTE LAKE, Aug. 5.**—It may interest men fond of fishing that Raquette Lake is by no means fished out. Judge Freedman and son brought to this place as result of a day's fishing a string of forty, say forty bass and trout, ranging from ¾ to 1½lb. Dingman, a guide, employed by this hotel, delivered as welcome addition to our menu a lake trout of 19lb. and 8 bass of about 2lb. each. All that on a day on which the thermometer never showed more than 53°, the previous days having depressed the mercury to 42°.—FIOR DA LICE.

**BLUEFISH AND WEAKFISH.**—Philadelphia, Aug. 5.—The scarcity of bluefish at Beach Haven, N. J., and the neighborhood is quite marked, and it is laid to the menhaden fishers. Weakfish have been caught in great numbers the past week, at any time and tide. Our party took 733 last Friday; and there were numerous catches of 300 and 400. No one wanted them and they were left on the dock to spoil. They run small, and will continue to do so until something is done to stop the "slaughter of the innocents" by net and hook. Bass are also small, and seem to grow so each year.—S.

**LITTLE ROCK, Ark., Aug. 4.**—Fishing has not been good around here this season. The long drouth during the summer and winter, and constant netting, has ruined all the lakes and streams around here. No attention whatever is paid to the so-called fish law. A party from the Ouachita River report fishing unusually good there. Fishing on Fourche La Fave is reported good, if minnows can be obtained, but they are scarce. No other bait seems to tempt. White and Cache rivers have been too high all the season.—CASUAL.

*Forest and Stream Fables have been reprinted with illustrations by the author, "Awassooc," whose sketches are as felicitous as the text of the fables themselves. There are seven of the Fables, each with a full page picture, and specially designed cover and title page. Postpaid, 10 cents*

## Fishculture.

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## THE ICED AND FROZEN FISH TRADE.

BY A. HOWARD CLARK.

[Read before the American Fisheries Society.]

**THE** iced-fish trade of the United States began about the year 1842. Prior to that date the inland trade in fresh fish was very limited and could be carried on only in the winter months. In 1845 the fishing vessels of New England began to carry ice for keeping the catch fresh. Care was at first taken that the ice be kept separate from the fish, being placed in a corner of the hold. It was soon found, however, that packing the fish in crushed ice did not materially injure them, and this method was soon in general use on all the vessels and largely superseded the trade in live fish north of Cape Cod. For many years it was thought impossible to transport fish inland, even if packed in ice, and it was not until 1859 or 1860 that Gloucester dealers could be induced to try the experiment of sending fish in ice to Boston and New York. Old sugar boxes were used for packing, and as the experiment was perfectly successful, a large trade was quickly developed and iced fish were sent west as far as Minnesota and south to St. Louis, or even to more distant markets.

For ten years or more prior to 1842, Boston and Gloucester dealers had carried on a trade of frozen fish during the winter and early spring, sending the fish by teams inland as far as Albany and Montreal; but as warm weather advanced the frozen fish gave place to dry and pickled fish. In the winter of 1854 an enterprising Gloucester fisherman tried the experiment of bringing frozen herring, cod and halibut from Newfoundland to Gloucester, where the herring were sold to the cod fishermen to be used for bait. From that experiment began a rapidly increasing trade in frozen herring from Newfoundland and New Brunswick for the supply of the George's codfishermen, and this bait is still the principal kind used by the fleets fishing from Gloucester in winter. The frozen herring also found a ready market in Boston, New York and other places as a cheap food supply. These fish have always been frozen by simple exposure in the open air, a warm spell interfering with the work. After freezing they are packed in bulk in the vessel's hold, snow being often mixed with them.

In Russia and other cold countries of Europe and Asia, for very many years there has been a trade in frozen fish and other animal foods. In Tibet, as early as the year 1806 the flesh of animals was preserved by frost drying—not simply freezing—and in this condition it would keep in good condition for many months. Meat thus preserved did not have a raw appearance, but in color resembled that which had been well boiled, the ruddiness being removed by the intense cold.

Thus far I have spoken only of iced fish and of fish frozen by natural means. The first definite record we have of fish frozen by artificial method is the patent (No. 81,736) granted in March, 1861, to Enoch Piper, of Camden, Maine. It is described as a method of preserving fish or other articles in a close chamber by means of a freezing mixture having no contact with the atmosphere of the preserving chamber. Mr. Piper states that the most important application of his invention is for the preservation of salmon, which had heretofore been preserved in a fresh condition only by being packed in barrels with crushed ice, which in melting had moistened and injured the fish. The ice, he said, could not keep them more than a month, whereas by the new method they could be kept in good order for years, if need be. The apparatus used by Mr. Piper is described as a box in which the fish are placed in small quantities on a rack, this box being surrounded by a packing of charcoal or other non-conducting material. Metallic pans filled with ice and salt are then set over the fish and a cover slung over the box. About twenty-four hours is needed to complete the freezing, the ice and salt being renewed once in twelve hours. The fish are then removed to be packed in the storage or preserving box. If desired, the fish may be coated with ice by immersion in iced water; they may then be wrapped in cloth and a second coating of ice applied, or they may be coated with gum-arabic, gutta-percha, or other material, to exclude the air and to prevent the juices from escaping by evaporation. The storage box is a double one, the inner one without a cover; the space between the sides and bottoms of the two being filled with charcoal or other non-conductor. Metallic tubes for the freezing mixture pass through the cover of the outer box and through the bottoms of both boxes, connecting with a small pipe to carry off the brine. The combined area of the tubes is required to be about one-fifth the area of the inner box, in order to keep the temperature below the freezing point.

Numerous and complex methods of freezing fish have been devised since Mr. Piper obtained his patent, but the simplest methods are perhaps as effective, and are surely more economical than the expensive machinery sometimes used.

In 1869 Mr. William Davis, of Detroit, patented a freezing pan for fish which he describes as a thin sheet metal pan or box in two sections or parts, one made to slide over the other, the object being to place the fish or meat in one part of the box and to slide the cover on to or in contact with the freezing mixture. The pans are packed on top of one another in a freezing box with iced salt over and around them. By this method from thirty to fifty minutes is said to be sufficient to complete the freezing, when the fish may be taken from the pans and stored in a keeping chamber where the temperature is constant at six to ten degrees below the freezing point.

In 1869 Mr. Davis also patented a preserving chamber, which he says may be a room, box or chamber of any desired form. It has two walls with the intervening space filled with a non-conducting material. Within this are metal walls of less length than the outside walls, so that between the two a freezing mixture may be placed. Entrance is obtained through the top or side by closely fitting doors or hatches. Other methods of freezing fish have been patented, such as making a series of seven circular pans of a size to fit in a barrel, and of putting the fish in rubber bags while they are being frozen. In 1880 Mr. D. W. Davis patented a method of packing fish in finely crushed ice in a barrel and freezing the mass solid, the fish being so stowed as not to come in contact with each other.

Freezing pans, with or without covers, are now in common use in most of the fishing centers of the Great Lakes, as also in some Eastern markets. In Boston, New York and at other points large buildings are devoted to the freezing and storage of bluefish, salmon and other species. The large species are frozen by hanging them in the freezing room or by ranging them on shelves. The improved systems of refrigerator cars and steamers render it feasible to transport frozen fish to any part of the United States or to foreign countries whenever the trade may require.

WASHINGTON, D. C.

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