John Gerard Heckscher.
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Don Hörter
FLY-FISHING.
FLY-FISHING

IN

SALT AND FRESH WATER.

WITH

SIX PLATES,

REPRESENTING

ARTIFICIAL FLIES, ETC.

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M.DCCC.LI.
So many books on the art of fishing have already been published, that it would now seem almost impossible to write anything at all on the subject that could possess any novelty, or afford any fresh information or useful instruction. But the author thinks that the reader will find in this little work, much that may be new to him.

The author has fished on three hundred and sixty-five days in the year, excepting, of course, on Sundays; and he has taken fish, of one sort or another, during that period, in good season, and in the highest condition for the table.

The author has also derived such extraordinary good sport from sea fly-fishing, that he hopes the
account which he has given of it in this book, will be novel to most readers. He has also given a list of flies adapted for sea-fishing, as well as a list of baits for deep-line sea-fishing, for the use of those who may be fond of that amusement.

The reader will also find an account of salmon-fishing in Connemara; and drawings of some tackle used in pike-fishing, which has the double advantage of preserving the bait, and of most successfully securing the pike.

The author is not acquainted with any treatise on fishing that affords information respecting the winter flies. In the winter months he has frequently killed with the fly, grayling of more than three pounds in weight.

The duns are on the water the whole of the winter, but they vary their shades continually. The reader will find a minute description of their different colours in that part of this work which treats of grayling-fishing.
In fishing for grayling, the author has always used a fly larger than nature, as the mouth of the grayling is so extremely delicate, that with a very small hook these fish are almost sure to break their hold. But although a large fly may be used, the utmost attention must be paid to its exact shades, and the character of the wings,* whether they lie horizontally on the back, or are set up perpendicularly. The fineness of the casting-line and the colour of the gut† must also be particularly attended to.

The author has given figures of some sea-flies, from which the reader can easily make his own.

This work is dedicated to all true Fly-fishermen; — that is, to all those who fish for salmon, trout, and grayling, as every gentleman ought to do, with the artificial fly only. The author looks with horror on those gentlemen who, professing to be fishermen, will coolly avow, that so that they can take fish, they care not how it may be accomplished — whether with the "cross line," or that other equally destructive

* See Appendix, F, G. † See Appendix, R.
practice, the "blow line," or the odious net. The true fly-fisherman, in short, fishes for the amusement he derives from the science which it is necessary for every fly-fisherman to possess, in order to ensure success; but the destructives, that is, the "cross liners," the "blowliners," and the "netters," fish only for the pot!
FLY-FISHING.

THE SALMON.

Salmon-fishing cannot be obtained in the United Kingdom, without visiting either Scotland or Ireland. There might be some in Wales, if proper means were taken to preserve the Welch rivers; but generally speaking, every Welch fisherman does his utmost to destroy this noble fish: and unless associations for their preservation are soon formed by proper persons, I should not be at all surprised to find that the salmon, in a few years, will almost entirely disappear from those rivers. There should be but one law for a river from its source to its mouth; but at present it is there left to the discretion of the magistrates of the county, to fix the times when such parts of a river
as pass through their own districts shall be open or closed for salmon-fishing. So that a river in one county opens and closes much earlier than the same river in the adjoining county does, the magistrates of the two counties making different arrangements for the very same river.

The principal salmon-fishing, in Wales, at present consists in killing old fish in the spring, on their way back to the sea, after having spawned, at a time when they are perfectly useless and wholly unfit for food. Indeed, many are so weak at that time, that they die from exhaustion and fatigue before they reach the sea; but if those that were strong enough were allowed to return to the sea, they would come back to the river again in a month or six weeks in beautiful condition, and with their weight nearly doubled. The fry of the salmon is also daily destroyed by the fly-fishermen in Wales, who do not seem to be aware that by so doing they are greatly injuring the rivers as salmon rivers.

The salmon-fishing in Scotland* is of first-rate order, and great pains have been taken for the pre-

* See Appendix, L.
ervation of the Scottish rivers. To ensure salmon-fishing in Scotland, it is quite necessary, before you go there, either to rent some fishery, or else, when there, to obtain tickets: but you would find this latter mode of purchasing tickets very expensive.

It is much more easy to obtain permission in Ireland, as the fishermen do not swarm there in such numbers as they do in Scotland. For one of the principal things to be attended to, in looking out for salmon-fishing, is to find a river where the salmon are numerous and the rods few; for little sport can be expected where the water is daily flogged from morning till night without intermission. Before taking tickets, you should inquire the number of catches or salmon-stands, and whether the number of tickets is limited; or you may find twenty tickets granted to fish a water, where there may not be room for more than three rods.

It is impossible to give any precise rule with regard to the flies to be used for salmon-fishing; for while in some rivers very large flies are used, in others a very small fly only will answer: for instance, in the Ballynahinch river, in Connemara, Ireland, very small flies indeed are used, as under: —
No. 1.—Tail: two turns of silver wire round shank of hook, immediately above this place on, for tail, golden-­pheasant top. Body: golden coloured or orange floss silk, with gold flat, red hackle. Shoulders: blue jay’s wing. Wings: mixed; brown mallard, guinea fowl, golden-­pheasant tippet, green parroquet, red parrot or macaw, one strand of each of these is sufficient, as a very light wing is requisite. Feelers: blue and orange macaw. Head: black ostrich.

No. 2.—Tail: two turns of silver flat, then, two turns of red floss silk, and immediately above this put on tail, golden-­pheasant top. Body: black floss silk, silver flat, black hackle. Shoulders: blue jay. Wings: mixed; spotted teal or stained orange teal, brown mallard, guinea fowl, parrot (red and blue), golden-­pheasant tippet, grouse, one strand of each sufficient. Head: black ostrich. Feelers: blue macaw.

No. 3.—Tail: two turns of gold flat, then three turns of black ostrich harl, then, for tail, golden-­pheasant top. Body: deep red floss silk, silver flat, claret hackle. Wings: mixed; golden-­pheasant tippet, guinea fowl, mallard. Head: black ostrich harl. Feelers: blue macaw.
All these flies are tied on Phillips's hooks, plain shape, C C, and the next largest size.

The best plan to adopt, before going to any country for the purpose of salmon-fishing, is, to furnish yourself well with the very best hooks, gut, feathers, lines, hitches, rings, two or three reels and gaff-hooks, and take care that your gaff, which should have no barb, be made of good stuff, and well tempered, that it may neither break nor bend when in the act of landing a heavy fish; and when you arrive at your fishing-ground, whether in Ireland or Scotland, you should immediately engage a good fisherman to attend you, who will show you the flies proper to be used for the water, as well as the different catches, pools or stands, or you might be wasting some time in fishing water where there was no probability of a salmon, or you might be fishing to no purpose in consequence of using flies not adapted to the water. Your salmon-line should be made of silk wholly, for if silk and hair are mixed, one is very apt to cut the other, when there may be a great strain upon it from a heavy fish.

The following flies, varying the size of the hooks, will kill salmon in almost all rivers.

No. 2.—Same as No. 1. *Wings*: buff turkey, tipped with black and white.

No. 3.—The same. *Wings*: small feather of snipe stained yellow or orange.


No. 6.—**Tail**: two turns of silver flat, two turns of black ostrich harl, golden-peeasant top. **Body**: golden pig's hair, red-orange hackle. **Wings**: mixed; golden-peeasant tail, golden-peeasant tippet. **Head**: black ostrich. **Feelers**: blue macaw.

The hooks for these flies may be Limerick Nos. 9 and 8; but you must vary them according to the river you fish. You will find that the above colours will kill salmon in most waters.

Good salmon-fishing could formerly be obtained in Norway,* but the rivers there are now mostly closed to strangers. Excellent salmon-fishing is to be had in Nova Scotia. For fishing in America, see Appendix, G G.

In Connemara, in the county of Galway, Ireland, most splendid fishing might be obtained if a party of gentlemen were to take the Ballynahinch fishery. The fish are very numerous,† and the absence of all trees and bushes, as well as of weeds, is a great advantage. The flies should be very small, and tied on single gut, and the three last links of the casting line should be of single gut also.

* See Appendix, D D.  † See Appendix, S.
To make the fishery perfect, the whole and exclusive right of salmon-fishing should be secured, from the top of Lough Ina to the mouth of the Ballynahinch river; taking care to secure all the rights of the salmon-fishery as far as they extend beyond the mouth of the river. There is a weir at a short distance above the mouth at present, and this, of course, prevents the salmon from being numerous above it; the water above would otherwise afford magnificent sport: as it is, the white trout contrive to pass through the weir, and afford great sport on the lakes above.

I have no doubt that when the river is in good order, the following number of rods and boats would not be found too many.

Below the weir, room for nineteen rods.

Above the weir, and below Ballynahinch lake, room for twenty rods.

When the river might be low:—

Below the weir, room for six rods.

Above the weir and below the lake, room for fourteen rods.

In Ballynahinch lake there is room for five boats, three good salmon-stands from the shore, and numerous stands for white trout from the shore.
Derryclare lake affords room for three boats, and many good stands from the shore.

Lough Ina has room for three boats, with good fishing from nearly every part of the shore.

The following is a sketch of the fishery.

The salmon are so numerous here, that I feel convinced that if the fishery were preserved, it would afford the very best salmon-fishing in Europe. I should think the extent of the water must be about eleven miles.
The country is beautifully bold and wild,* close to the magnificent mountains called the "Twelve Pins." The mail-road from Galway to Clifden runs through Connemara. There are grouse and woodcocks, and numbers of hares: the former would be much more abundant if the vermin were destroyed; the eagles and sea-crows also destroy the game. The peasantry throughout this wild district are a very quiet and inoffensive race, and most grateful for the least kindness shown to them. Most of the lakes in this district abound in white trout, as well as with a very small trout, called by the natives "brown trout" or "Gub-whanehs." They look like the common trout of the English rivers, but I never saw any more than five or six inches long: they are excellent eating. There is also a large lake trout, something like the English trout, but I never caught more than two, which I took with a white-trout fly; one weighed six pounds, the other eight.

To show what may be done, by perseverance, to increase the number of salmon, I cannot do better

* See Appendix, S.
than insert here a memorandum, furnished by a gentleman in Scotland, on the 15th of October, 1847.

"The salmon, all along the western and northern shores, could be greatly increased were the proprietors to take proper steps. For instance: a fishery on the west coast was taken by a party, and after several years' trial, it was found not to remunerate them as expected, and they gave it up; when a private gentleman belonging to Glasgow, quite unconnected with any fishery, took a long lease from the proprietors, of several rivers and lakes, as well as the coast, for a considerable distance. He commenced operations by making a canal, with divisions in it, so as to separate each pair of fish, male and female. A sufficient supply of water was at all times allowed to be in it, and it had a gravelly bottom: this canal was cut from the river. The salmon were carefully taken alive to this pond or canal in a deep boat; this had been done for four seasons before, and about 150 to 200 used to be caught in a week: this last season, which was the fifth year, from 400 to 500 were caught; and in one week as many as 1000 were taken. The old fish were properly watched by a man and dog, during the whole of the winter, both by day and night; the dog
kept off those rapacious animals, the otters, and the man kept off the wild fowl that frequented the rivers and lakes; none were permitted to live. Ducks, both wild and tame, are very destructive to the fry, and all these were destroyed. The old fish were allowed to leave the canal in February, and in this, the fifth season, fifty pairs escaped, after having been there all the winter; they were all quite healthy. The fry were allowed to leave about April.

"The bull trout used to be very plentiful there, but a plan was adopted to destroy these fish, so destructive to the fry. A lamp was invented, three feet deep, with two tubes or pipes, the one to conduct air down to the lamp, which was thirty inches below the water, the other to carry off the heat, &c. This lamp was supported by a cork. There being a great number of these bull trout in the river, the lamp was taken to the lake, and pulled gently down the river, in the nighttime, to a large pool, when a net was cast round the lamp, and on taking it on shore, more than 200 large bull trout were killed, weighing from six to fourteen pounds each, and some of them were full of spawn.

"No rod-fishing was allowed during the fry season, and the salmon-fishing was invariably stopped
about the middle of August, for the purpose of allowing the fish a clear chance of getting up, in good time, to the spawning-beds.

"The above speculation turned out most advantageously. There was a great number of small trout seen and caught all along the coast, not unlike the salmon, and weighing from one to two pounds each. These were supposed to be the fry, at the second stage, when they leave the river and return as grilse, and on their next leaving the rivers, they return as salmon. The grilse were sometimes caught as much as sixteen pounds in weight, and the average exceeded eight pounds."
WHITE TROUT, SEWIN, OR SALMON PEEL.

These fish are generally called salmon peel in England, white trout in Ireland, and sewin in Wales, &c. They are, I think, the same sort of fish as are called whitling or finnock in Scotland. They are to be met with in most rivers, however small the river may be, provided there is water enough in it to enable fish to ascend the stream. The reason for their being most frequently met with in the lower parts of rivers only, is that they are prevented from ascending to any great distance by weirs or mill-dams. Where they are found they afford most excellent sport, as they take a fly very freely. In England, I have taken them with a large red palmer, a black palmer, and a gray palmer; while in Ireland a winged fly is generally used. I have taken as many as thirty in a day in some of the lakes of Connemara, with a small fly made of the same materials as the salmon-fly in use in that country: a few of them weighed as
much as six pounds, but they are not often met with so heavy as that. As far as I observed, all those which I took in Connemara appeared to be of exactly the same kind; but in England, I have observed a difference, both in the shape and in the spots of some of them. The colour of the back of one sort which I have taken in the English rivers is very light brown, and this fish has very few spots on it, and those spots are very far apart: this fish is of a very handsome shape, and is a delicious kind for the table. The back of the other is of a darker shade, the form of the body is not so elegant, nor is the flavour so good as in the first; but it is more like those I took in Connemara. They usually begin to come into the rivers about the middle of June. I have seen them taken in Hampshire as large as nine pounds. They are frequently very numerous in small rivers, where there are no salmon; and the fry may be taken on the shallows and scours with a small fly, in the month of March. They are beautiful silvery little fish, but it would be a great pity to kill them so small; nor can I suppose that any fly-fisherman would have a wish to do so, but, on the contrary, would rather do all he could for their preservation.
SEA FLY-FISHING.

Most capital sea fly-fishing can be obtained off the coast of Connemara, viz., in Bertraghboy Bay, at the Skyard Rocks, at Deer Island, and off the Isle of Mweenish and the Isle of Arran.* The whiting pollack that are to be met with there, take a large gaudy fly most boldly. I have with a fly taken some in those parts, as large as nine pounds. I used seven flies at once, and have frequently taken seven fish at the same time. One day I caught 194 with the fly, and the man in the boat with me took sixty-eight with two of my flies. I should have caught a great many more, but the wind blew fresh, and we could not remain long enough among the fish when we met with a shoal, but were obliged to tack backwards and forwards, so as to enable us to be continually passing through them. I once actually hauled in eight fish together, though using only seven flies; one of these fish being caught by the lip and the other by the tail,

* See Appendix, U, V, W, X, Y.
on the same hook. I am not sure that I could not have killed more fish had I used fewer flies, as a great deal of time was lost in taking the fish off the hooks; but it certainly was good sport pulling in so many together.

I one day went to the Skyard Rocks, twelve miles out at sea. One of the men in the boat, with one of my large flies, soon caught a pollack weighing nine and a half pounds; and before he could take the fly out of the mouth of the fish, the boatman saw a monster close to the stern of the boat take my fly, but after holding him for a few minutes only, the hook broke just below the barb. The water here was shallow, with a sharp rocky bottom, and I consequently did not dare to give him much line; but it was very annoying to lose so large a fish. The men in the boat declared that he was the largest pollack they had ever seen. I found it quite necessary to use six-link twisted gut. Soon after this, I caught one of seven and three quarter pounds; and one of the boatmen, with a hand-line and heavy lead, and a fly that I had given him, caught eighteen fish, the largest of which weighed four pounds. The weather now looked as if it were coming on to blow, and the Skyards not being
a place to be caught in in a gale of wind, in an open boat, we thought it prudent to make for home. It is almost too far out at sea for an open boat, added to which, such a fearfully dangerous and wild-looking place I never beheld; it would not do to be there with much wind from the south-west, as the whole force of the Atlantic would then break upon these rocks: and it being in the month of October, and the weather beginning to be unsettled, I did not think it prudent to venture there again. A steam yacht would be an excellent thing on these expeditions, for should the wind and tide be unfavourable when you wished to return, you could then do so with ease, when it would be impossible in a sailing boat. Scarcely a winter passes without our hearing of fishing-boats being driven out to sea, and never again heard of.

After this I went to the Isle of Mweenish. It was on the 19th of October; and I had not fished many minutes, when I hooked a fine fellow with one of my largest flies. He was so strong, and run out the line at such a rate, that although the man at the helm luffed, the fish broke away, and I found the point of the hook bent, as if it had come in contact with a stone. A few minutes after this, I hooked a monster,
and after twenty minutes' play succeeded in getting him very near the boat; but he then made a dart downwards, just as we thought he was going to give up the fight, run out about 120 yards of line, and got away. I felt certain that some part of the tackle had broken; but on examination, I discovered the hook to be perfectly straightened. Soon afterwards I took eight other fish, which were all small. There was one other rod out, and two hand lines; the rod was baited with a sand-eel, and the lines with heavy leads and my flies, but none of them had a pull: this I attributed to my snood or casting-line being of twisted gut stained gray, whilst one of the hand lines had a coarse hemp snood, and the other had harp-string gimp, and the rod had on a sand-eel for bait. It was as bad a day for this sport as could be; the hills were white with snow, and there was a cutting north-east wind. The boatmen said that they scarcely ever recollected an instance of fish taking any bait in such weather. Later in the day, however, I caught ten other small fish, and the harp-string gimp with the flies caught eight fish, one of them weighing five pounds. The hemp snood with the flies caught only one fish, and
that a small one; and the rod with the sand-eel did not catch a fish.

The next time I went out it was to the Isle of Arran, when I killed sixty-nine fish, all with my flies. I hooked one tremendously large fellow, which run out the whole of my line—200 yards. Unfortunately the boatmen were not quick enough in bending on a sea-line to my rod; they were nearly a minute about it, with the fish pulling most furiously all the time. The moment they had done it I threw my rod overboard, when away it went at a rapid rate for a considerable distance, but it was too late; the mischief, I suspect, had been done before I threw the rod overboard. We saw, from the sudden stopping of the rod, that something was wrong; and on getting in the tackle again, we found that the wheel-line had broken about ten yards above the fly.

My last two days of sea fly-fishing were the 10th and 11th of November, in Bertraghboy Bay. A gentleman, who was desirous of witnessing this sort of fishing, accompanied me on both occasions. In the two days we killed 420 pollack, but none of them were large. I once hooked seven at one time, and
killed them all; the smallest weighed three and a half pounds. I also caught two small cod with pollack-flies.

As the weather now began to get rough and stormy, I did not venture out again; for the sea gets up very quickly in those parts, and if it blows fresh from the North, it is almost impossible to regain the shore, should the tide be ebbing at the same time.

When I hear of gentlemen fitting out their yachts for Norway and Lapland, and even to as great a distance as Nova Scotia, for the purpose of salmon-fishing, I cannot imagine why this part of Ireland has not attracted their attention; and can only account for it by the fact of its being in a wild part of that country, and very little visited or known. When I say wild, I mean that it is situated in a part of Ireland which is uncultivated, and consists principally of lakes, barren heaths and magnificent mountains: for I found the peasantry there, though very uncivilized, a particularly civil and inoffensive race, and apparently totally different from the rest of the Irish peasantry; they are supposed to be of Spanish origin.

Your snoods or casting-lines for fly-fishing for pollack must be either twisted gut stained gray, or twisted wire covered with paint of a leaden colour,
that will stand the salt water. The casting-line should have two swivels; and when there is a good breeze, sufficient to enable you to use your largest flies, the swivel nearest your wheel-line should be a very large one. You should always be prepared with your strongest as well as finest tackle, that you may be properly appointed, whatever the weather may be.

SEA FLIES FOR POLLACK.

No. 1. — This was a favourite fly with plenty of wind. Tail: about half an inch of gold twist round the shank of the hook, then red feather of cock-of-the-rock. Body: lower part red worsted, upper part blue worsted or shag, gold twist, orange hackle lower part, bright dark crimson hackle upper part. Wings: under wings cock-of-the-rock's red feather, tipped with white, upper wings two white feathers from under the wing of wild fowl stained yellow. Head: large blue jay's hackle twisted on. (See plate 1).

No. 2. — Tail: gold twist, then some strips of swan or white turkey mixed, stained red, orange, blue or green. Body: same as No. 1. Wings: under wings mixed colours, of swan or turkey stained, upper wings brown turkey tipped with white. (See plate 2).
No. 3.—*Tail*: gold twist round shank of hook, then mixed, small scarlet hackle, small blue ditto, silver-peareasant black and white feather, ditto stained orange. *Body*: same as No. 1. *Shoulders*: blue jay. *Wings*: lower wings stained, mixed, scarlet, blue, orange, upper wings mottled feather of peacock's wing, light buff with black bars. (See plate 3).


No. 5.—Used when the weather is bright and not much wind, and made on large trout-hooks, two-link twisted gut. *Tail*: two turns of gold twist, then a small cock's hackle stained blue for tail. *Body*: rich red worsted, gold twist, rich bright red hackle. *Wings*: mixed; stained mallard, red, yellow, green. *Head*: guinea-fowl hackle twisted round.

I have given the above as specimens of a few only; but I have made the pollack-flies of every description of bright and fancy colours.

Your snoods or casting-lines should be nearly three yards in length, and should have two swivels, the larger one should be placed about four inches
below the wheel-line, and the smaller swivel about the middle of the casting-line. The largest swivel should be two inches in length, and proportionally stout.

Your rod for this fishing should not be more than three yards and a half long, with a strong stiff top, and very large rings; and the rod should consist of two pieces only, *spliced*, as the sea-water would soon destroy a rod with ferrules. Your lines should be of hemp, some of them very stout, for rough weather, and finer ones for calm weather. The manner of using your rod when under an easy breeze, is this:—you dip about half a yard of the top of the rod in the water, holding the rod perpendicularly, and when you feel a fish strike, you immediately reverse your rod and play your fish as on any other occasion. Of the stained hackles, I think the dark orange were decidedly the best.

Those who are fond of hand-line fishing, or setting the spillet, which consists of a long line with 100 or 200 hooks attached, and which, after having baited and set, you leave for some hours, will find the following baits very good:—

Lug-worm; for cod, haddock, ling, fluke, bream, tamlin, conger, sole, whiting, flounders, dabs, &c.
Whelks, alias cow-horns or buckey; for turbot, ling, haddock, cod, conger, &c.

Sand-eel; for pollack, turbot, flat fish, cod and ling.

Garden worms; for flounders and most flat fish.

Scallops; almost too soft to be put on the hook, but they will take fish.

Mussels; for ling, bream, cod, whiting, rock-cod, haddock, mackerel, gurnet, &c. To keep this bait steady on the hook, you will find it a good plan to tie a bit of thread round it.

Herrings;* for cod, turbot, hake, ling, mackerel, whiting, gurnet, and many other fish.

Soft-shelled crab; most admirable for cod, haddock, rock-cod, whiting, ling, bream, fluke, flat fish, gurnet, and many other fish.

Red and gray gurnet; for hake, and a few other fish.

Sugar-loon; for haddock, whiting, cod, ling, bream, &c.

Mackerel; for turbot, ling, cod, haddock, mackerel, &c. In fishing for mackerel, always use gut and fish as fine as you can.

* See Appendix, W.
SEA FLY-FISHING FOR BASS.

The bass will take any gaudy fly very boldly. Your casting-line should be of twisted gut, and your tackle very strong, as the bass is a very powerful fish. On the south-west coast of England, I have taken them with the fly, as large as fourteen pounds. The fly is thrown as in trout-fishing. At low water, and near the mouth of a river, try for them near the edges of the weeds and long grass. A boat is generally necessary for this purpose.

GRAY MULLET.

Gray mullet will take a small fly: fish for them near the mouth of a river, when the tide is beginning to flow, at which time they occasionally come in with the tide in large shoals.

PERCH.

Although this is not a sea-fish, it is often to be found at the lower parts of rivers, where the tide mixes with the fresh water; and you will find that a small flat fish, not quite so large as a halfpenny, is a capital bait for them. I have also taken them with a gaudy salmon-fly, by sinking the fly and occasionally suddenly drawing it quickly.
PIKE-FISHING.

The most pleasant and agreeable way of fishing for pike, is the following. Having procured your dead bait, which may be any fish you can most easily obtain, such as gudgeon, trout, dace, roach, perch, &c.; or if these are not to be had, a piece of an eel, about six inches long, will answer the purpose. Or, if any sea-fish can be got, they will do equally well, or even better; such as smelts (both the London smelt and the common smelt), herrings, bass, gray mullet, or in short any fish that, from its white and silvery colour, will show itself well in the water. I have used them from the size of a gudgeon to that of a roach weighing three quarters of a pound; and if you would be always prepared with bait, you have only to purchase some sea-fish quite fresh, and then salt them, and you will find that a pike will rush at them quite as eagerly as he would have done if they had been fresh-water fish.

Being well provided with bait, the next thing to be attended to is the rod, which may be short, but
must be strong, to enable you with safety to throw to any great distance, when using a bait of three quarters of a pound weight, say ten feet four inches long: but the length of the rod must depend in a great measure upon the width of the water you fish. It may consist of either two or three joints, as may be considered most convenient. When three joints are used, the top joint should not be longer than two feet two and a half inches, including the part that goes into the ferrule, and the top of this joint should be one inch and three eighths in circumference. This is the only joint that will require a ring, which must be placed on the top of it, as in plate 5, fig. 1. The ring is made thus: take a piece of stout brass, as in plate 5, fig. 4; then get a brass wheel cut sufficiently deep (fig 5) to form a circle with the upper part of fig. 4, when fixed to it, as in fig. 3. Now fasten on the back of this ring a plate of brass (fig. 6), as is shown at fig. 7, which will enable you to whip it firmly to the top of your rod. If you use a ring without a wheel in it, the friction caused by the line running rapidly through it will soon wear the ring into grooves, and these grooves will cut your line. The diameter of the
inside of the wheel should not be less than five eighths of an inch.

Your line may be of any common material, so that it is strong, and should be about sixty yards long, and have a very large loop at the end; so that the tackle, fig. 2, when the bait is fixed on it, may pass freely through this loop. And now to prepare for fishing. Having put your rod together, pass this loop through the ring at the top of the rod, and loop on your tackle (fig. 2), with the dead bait tied in it, as in fig. E; place the remainder of the line in coils on the ground, but be careful not to coil too much in one place, as it would get entangled when you make a throw. Now take the rod in your right hand, and place the butt firmly against your hip, and be careful to hold the line in your left hand until you throw, but the moment you throw, you must open your left hand, and let the line run freely through it, and when the bait is gone as far as you intended, haul in the line again with your left hand, letting it fall in coils on the ground, but not too much in one place. In hauling in your line, you should work the top of the rod occasionally, and give as much action to the bait as possible, that it may have the appearance of being alive.
The instant a pike seizes your bait, you may strike, and play him according to his size and strength. You can trail your line along the ground when you move from one place to another.

The tackle, fig. 2, is made thus. Get a brass ring, large enough to go over about an inch of the nose of your fish, (fig. A): this ring may be either circular or oval, as you please. Now get a piece of stout brass wire (fig. B), and attach it securely to the ring; but be careful, first, to put the swivel, fig. C, on this wire at the point G; then whip your gimp trace, fig. D, on to the other end of this swivel, and the swivel at the other end of your trace will loop on to the large loop of your trolling-line. Next take three pieces of gimp, of unequal lengths, and whip them securely on to the ring A, at equal distances; then whip your hooks on to these three pieces of gimp, as in fig. 2: the longest piece of gimp should be a little longer than your bait. The size of the hooks and the length of your bait must depend entirely upon the water you fish; I use the largest sized Limerick salmon-hooks for the tail-hooks, where the fish run large, and the other hooks smaller: but the smallest hooks should be made of very stout wire. You should also
attach a stout bit of wire to the ring (see fig. 2, F), the length of your bait, and a little bent at the lower end, and by lashing your bait with thread tightly to this wire, it will make the tail of your bait bend, and occasion it to spin better.

To bait this tackle, you take your dead bait and run his nose through the ring (fig. E), and then with your scissors or baiting-needle, run a bit of thread through his under lip and nose, and tie it strongly to the bit of wire, just where the first swivel is fastened on, or the bait will slip back a little every time you make your throw. Now lash your bait with thread to the wire F, and make it fast by running the thread through the hole at the end of the wire; you have now only to lay the gimp with the hooks along your bait, one down the back, and one on either side, and then make all steady with thread tied round in one or two places, as in fig. E, which will also keep the hooks in their proper position. Be careful not to let any of the hooks run into your bait, or they will soon tear it to pieces: you should also make the hooks set out well from the bait, and do not let them set in rows, but place them irregularly.

This tackle is very good to preserve your bait. I
have killed as many as three pike with the same bait with this tackle; and you may use the most delicate bait with it, such as the smelt, which, with common trolling-tackle, is soon bruised and spoiled. You should have some lead on your line for this bait, about a yard and a half above the bait; the weight of your lead to be according to the water you fish, and you should have with you leads of various weights.

You will find the tackle plate 6, fig. A, equally good; but this will not require any lead on the line, as the upper part of the barbed spear is leaded: but, with this tackle, your bait will not last so long, and it is not so well adapted for tender baits as the other. If you wish to catch large pike, use large baits.

To bait this tackle, put the spear into the mouth of your dead bait, and run it down the inside of the bait, until the nose comes up to the staple where the swivel is attached; then run a bit of thread through the nose and lips, and tie it to the staple, and lay the hooks along the sides, as in fig. E, plate 5.

In making either of the foregoing tackle, you will find it a good plan to have a pattern, in paper, of the exact size of your bait, and then you will be enabled to judge correctly how long the gimp upon which the
hooks are whipped should be. In tying on the hooks do not place them so that they stand in circular rows, but as irregularly as possible; so that, whatever part of your bait a pike may seize, there will be a hook in readiness for him.

Some persons use a very short rod for trolling, but I prefer a rod about ten feet five inches long, as when the sides of the river are weedy or foul, this length of rod will enable you to lift your bait out of the water suddenly, by which means you will avoid the weeds or reeds; and you can also, by well working the top of your rod occasionally, give the appearance of life to your bait.

Jack will also take a very large artificial fly. Some persons always use flies in fishing for jack, and kill quite as many fish, and those as large, as others who use fish for baits. You throw much in the same way as you do the gorge, only it is not necessary to let the fly sink so deep; but it should always be at such a depth, that the surface of the water may not be disturbed or broken by it, (see fig. B, plate 6). The length of this fly, from the nose to the tip of the tail, is one foot two inches: you may make him thus. Get a round piece of deal, or any other wood, six and
a half inches long; make the belly side of this piece of wood flat, and fasten on this flat side some lead; now whip on some triangular hooks at the tail end of this piece of wood, and let the gimp, on which these hooks are lashed, be long enough to reach as far as the head of the fly, in order that the hooks may be secured by whipping the other end of this gimp to the gimp which forms the loop at the head of your fly. Now twist any bright-coloured worsted round the wood and over the shanks of the hooks for about an inch, and then tie on also over the shanks of the same hooks some stained cocks’ hackles, or any showy feathers, and then tie on the tail, two feathers of a cockpheasant’s tail. Now fasten on a piece of gold or silver tinsel by one end only, and leave it hanging; and make the rest of the body of your fly, up to where the lower wings are fastened on, with any coloured worsteds or wools you please. Now twist on the tinsel over this, and fasten it. Fasten on the lower wings, which may be two feathers from the curlew; then twist on some more worsted for about half an inch, and fasten on for the upper wings, two eyes of the peacock’s tail, and then a turn or two more of worsted and tinsel. Next get a piece of gimp and bend it double, leaving
one end a little longer than the other, as in fig. G, pl. 6; form a loop by whipping a little thread or silk round the gimp and tie on your hooks, as represented in fig. G: fasten the gimp to your fly just underneath the head, and lay the hooks so that they set out well from the fly, and to keep them in their proper position, tie them in one or two places with a bit of silk round the body of your fly, but under the wings. Fasten on for the eyes two glass beads, with a bit of wire run through them, and make the nose of the fly by putting on with a painting-brush a little red sealing-wax dissolved in spirits of wine. The fly being leaded, you will not require any lead on your line, but merely fasten your trolling-line to the loop of gimp at the head of your fly. You should have with you several flies of this sort, of all colours and sizes, and varying both in bodies and wings.

Jack begin to come into season about the end of September, are best in November, and begin to go out of season about the end of February. Mild weather, with plenty of wind, is the best for trolling; but I have taken large pike in the most severe frosty weather.

Some troll for pike without any rod at all, with a line as thick as the little finger, made of horse-hair.
Having laid this line in coils on the ground, you hold it about a yard above the bait, and after whirling it in the air three or four times on your right-hand side, you suddenly let it go, and it will fly across the river to a great distance; you then immediately haul it in again and lay it on the ground in coils ready for another throw: but this plan will answer only where there are no weeds or trees. In trolling, you must always be particularly careful to keep every hook perfectly clear of weeds; for should there be any weeds hanging to your hooks, the probability is that a pike would refuse your bait.

If you prefer fishing for pike with a live bait, a gudgeon is one of the best baits, and the mode is as follows. Your hook should be a very strong one, and made of very stout wire; it need not be a very large hook, but it must be strong. Put this into the gudgeon’s lip, or into the skin just under his back fin; and having put some lead on your line, drop the gudgeon into such holes as are likely to be the haunts of pike, and then gently draw him up occasionally, or you may use a large float, and rest your rod on anything handy. Should a pike seize your bait, allow him a short time to swallow it. Many persons make
use of three hooks lashed back to back for this fishing, and to bait them, you put one of the hooks through the skin of the gudgeon, close to his back-fin. Although I think a gudgeon the best bait for pike, yet roach, dace, or any other fresh-water fish are good. These three hooks, lashed back to back as just mentioned, make very good tackle for dead bait. You loop your baiting-needle on to the loop at the end of the wire to which the hooks are attached, and then insert the point of the baiting-needle at the back, just below the back-fin, and out of the mouth, drawing the wire with it, until the bend of the hooks is brought up close to the fin.

If you troll for pike with the common gorge-hook, with a dead bait, and have a difficulty in getting fresh-water fish for bait, a herring (not too large), gray mullet, smelts, or small bass (with the back-fin cut off), will do quite as well. I have continually taken pike with the gorge with these fish, and think them quite as good bait for gorge-fishing as any fresh-water fish. I have never tried any other sea-fish for the gorge, but probably some others might do as well. You must, however, bear in mind, that all these fish must be *perfectly fresh* for this fishing; for a pike
will not take a stale fish. When you have a run, that is, when a pike seizing your bait, you must give him a quarter of an hour before you strike him, as these fish generally hold the bait in their mouth a short time before they swallow it. As he pulls, you must allow the line to run freely until the quarter of an hour is expired, when you may strike him and get him out as you can. When the pike run large, you will find it requisite to have a gaff-hook with you: but this fishing with the gorge is but dull sport at the best of times.

To prevent your trolling-lines from kinking, you should stretch them well, in the following manner. Unwind your line, and lay it at full length upon the ground, then make one end fast to something; next, take a round stick, and turn the line once or twice round it, about two feet from the end where it is made fast, and then taking either end of the stick in each hand, you must walk slowly backwards until you come to the other end. This may be repeated, should you think the line not sufficiently stretched the first time. After having stretched it, you may wind the line on a pliable card-board, or the cover of a book, and when all is wound on, by gently bending the card or book-
cover, the line will easily slip off. You should then wind some string round it to make it keep its shape in a coil, which will prevent it from becoming entangled, and having done this, soak it in prepared cold linseed oil for ten hours; then take it out and wind it tightly on a clothes-horse or any frame, and place it in the wind, but keep it from the dust and sun, and when quite dry, you can wind it off and put it in your fishing-box until you want it. The linseed oil is prepared by boiling it for a certain time, and can be obtained at any chemist's.
TROUT.

Trout generally begin to come into season in March; but there are many rivers in which they are not in perfect condition until May. The small trout appear to be in season in many rivers and brooks throughout the year.

In fishing for trout with the artificial fly, the two principal things to be observed in order to insure success, are, to conceal yourself and your rod, and to fish with very fine tackle. Your casting-lines or gut bottoms cannot be too fine; but though your tackle must be fine, it is not at all necessary that the artificial fly should ever be smaller than the natural size. You have a much better chance of taking large fish by using large flies, than you would by making use of very small flies: you may not probably kill so many fish with large flies, but is it not better to fill your basket with a few large handsome fish, than to have it filled with a number of small fry?

So many good books have already been published on the art of fly-fishing, that any person desirous of
obtaining information on the subject, must often be at a loss to decide which of these works to purchase. I should recommend every one who requires good, sound, useful and practical information on the subject, to procure Blacker's book; 'The Fly-fisher's Entomology,' by Ronalds; Hofland's 'British Angler's Manual;' Sir Humphrey Davy's 'Salmonia, or Days of Fly-fishing;' and Scrope's 'Days of Salmon-Fishing.' With these in his portmanteau, the fly-fisher's library will be complete, whatever part of the United Kingdom may be the scene of his exploits. As to the accounts of the different rivers, and the best fishing-stations on them, which are given in books on fishing, you should never be guided by them, but should rather make inquiries of your friends who are fishermen, and who possess the local knowledge you may be in quest of. For were you to visit some of the places called fishing-stations, you would often find yourself most grievously disappointed, and discover that you had made a long journey for nothing.

The trout-fishing in England is generally good, in Wales it is very inferior; the trout there are for the most part small, and the fall of the bed of the rivers is so great, that a river, even after a heavy flood, will
run itself out in the course of four-and-twenty hours, unless continually replenished by rain. In consequence of this, there is very little fishing in those parts after May; and the rivers from that time for several months are little better than brooks or small streams, unless the summer should happen to be a wet one.

The beds of the Welch rivers generally consist of hard rock, and in some places they are smooth as a paved street, in others, they are composed of large fragments of rock, or round stones and pebbles, but there is no small gravel; so that the trout, in order to find ground better suited for depositing their spawn, go up the small brooks and mountain streams for that purpose, where they are sure to be immediately taken by poachers, who destroy the whole of them by lime.

In all trout rivers great attention ought to be paid to those spots which are likely to become spawning-beds; and should there be no places in a river, from the want of fine gravel, fit for trout to deposit their spawn in, this deficiency ought to be remedied by artificial means, and loads of gravel deposited in proper spots. By attention to this, I have seen rivers which
had previously contained but few trout, converted into good fishing-rivers.

In tying your trout-flies, and all small flies, the general instructions you will meet with in books are very likely to mislead you as to the principal material requisite for tying a fly neatly. Most books on the art of fly-making direct you to get a fine bit of silk and well wax it: now, instead of going to a shop and asking for fine silk, you should go to a tassel-maker's shop and ask for some *gram*, which is *unspun* silk, used in making the outer cover of the knob of the tassel, and is almost as fine as a spider's web, and consequently would not bear to be waxed in the common way; therefore, in order to wax it, you should dissolve some common shoemakers' wax in spirits of wine until it becomes of the consistency of butter, and then put a very small piece of this upon the inside of a piece of an old kid glove, and draw the gram lightly through it. Should the gram be too much waxed, by drawing it through the leather on the other side, the superfluous wax will be taken off. Should you have any difficulty in procuring gram, buy a quarter of a yard of brown silk, such as is worn by Quakeresses,
and unravel it; you will find the threads, although not so fine as gram, nearly as good for the purpose.

The following flies I have found to kill fish in most rivers, according to the water.

Black palmer; golden palmer; common gray palmer; gray palmer with two turns of silver twist round the lower part of the shank of hook, then peacock's harl for body, gray hackle with long fibres round the upper part of body only; coch-a-bondu; the Chantrey; the governor, two turns of orange silk on lower part of body, then peacock's harl for the remainder of the body, then for legs red hackle, woodcock's wing. All the above may be used throughout the season.

MARCH.


Cow-dung.


Black-bodied Dun. — *Tail*: two hairs from a sable boa. *Body*: black silk or picked worsted. *Legs*: 
black brown-stained hackle. **Wings**: smoke-coloured feather from underneath teal's wing.

**Olive Dun.** — **Tail**: two strands of cock's hackle, stained olive. **Body**: very dark brown silk or picked worsted, ribbed with olive silk. **Legs**: olive-stained cock's hackle. **Wings**: small smoke-coloured feather from underneath teal's wing.

**March Brown.** — You should have three shades of these, and three different sizes; and if the fly is very strong on the water, use the three sizes at the same time.

**APRIL.**

Same as last month, and also: —

**Yellow Dun.** — **Tail**: two strands of cock's hackle stained light smoke-colour, or two strands of Welch blue hackle. **Body**: pale yellow English marten's fur from side of face. **Legs**: two turns of cock's hackle stained yellow olive. **Wings**: light smoke-coloured feather from underneath teal's wing.

**Stone Fly.** — (To be tied on a hook with a very long shank). **Tail**: two strands of black cock's hackle. **Body**: dark olive picked worsted, ribbed with
silk of a lighter shade (the body underneath the chest should have a little orange worsted). **Legs**: long-fibred black cock’s hackle. **Wings**: brown pheasant. (Good on a rough day).

Green-tail. — **Tail**: one turn of green floss silk. **Body**: mole’s fur. **Legs**: brown ginger hackle. **Wings**: woodcock.

**MAY.**

Same as last month, and:—

Smoky Dun.—**Tail**: two strands of cock’s hackle stained light smoke-colour. **Body**: olive worsted picked from an old carpet, ribbed with silk of a lighter shade. **Legs**: cock’s hackle stained light smoke-colour, or blue Welch hackle. **Wings**: smoke-coloured feather from the back and shoulders of sea crow.

Great Red Spinner.

Alder Fly. — (To be made large). **Body**: pea-cock’s harl. **Legs**: black hackle. **Wings**: brown feather from silver pheasant’s wing.

Brown Fly.—**Tail**: two strands of red cock’s hackle. **Body**: dark brown silk. **Legs**: red hackle. **Wings**: starling. (Very good).
JUNE.

Same as last month, and:

May-fly.—*Tail*: three rabbit's whiskers, two turns of peacock's harl. *Body*: very pale yellow (almost white) floss silk, ribbed with brown silk. *Legs*: speckled feather from partridge's back. *Wings*: gray mallard *very slightly* stained olive,* only sufficiently to kill the white. *Head*: peacock's harl.

Make these flies of various sizes, some on very long-shanked hooks; and if you reverse the hooks of some, it will give you greater length of body, and the tail will set up well, and you will hook your fish quite as well as if the fly had been tied on in the usual way.

Gray Drake.

JULY.

Same as last month, omitting May-fly and gray drake.


* See Appendix, T.
FLY-FISHING.

AUGUST.

Same as last; and try palmers, coch-a-bondu, the Chantrey, and the governor.

SEPTEMBER.

Same as last month.
GRAYLING.

GRAYLING come into season in September, and continue so until March. During the time they are in season they are excellent fish, and, in my opinion, not at all inferior to trout for the table. Many condemn the grayling, and think it not so good as trout, because they will eat it during the summer months, when these fish are generally out of season, and good for nothing. They spawn early in April, and do not recover or get into firm condition until September. It is a pity that more attention is not paid to the preservation of this fish in the rivers where they are found, not only on account of their delicate flavour, but also because they come into season just as trout go out, and consequently afford the fly-fisher most excellent sport during the whole of the winter months; for, however cold the weather may be, should there be a fly on the water, and there are very few days indeed during the winter that the fly does not appear

* See Appendix, Q.
at some time of the day, they will rise most freely. It is true, the sport does not last long during the day in the very cold months; but it is very exciting and lively whilst the fish are feeding, which they begin to do the moment the fly makes its appearance. You should be prepared with your tackle properly arranged, and ready to commence work the instant you see or hear a fish feeding, for the fly may probably disappear in half an hour, and then all will be still again, and it would only be a waste of time were you to make another throw.

It is curious to observe how very suddenly the fly makes its appearance. As you are standing by the water, having everything ready to begin, lazily smoking a cigar, and perhaps beginning to think that the fly will not make its appearance at all, you are suddenly startled by hearing a good large fish rise; and before you can seize your rod, the fish are feeding around you in every direction, upon the flies which have just made their appearance, and which may now be seen floating down the stream in great numbers. In a moment, all is life and bustle, and your sport is then sure to be great; but it will cease as unexpectedly as it began, and the stream will again become as
dull and lifeless as it had been previously to the fly coming on.

The wings of all the winter flies are set perpendicularly* on their shoulders, and they all have long hairs in the tail, like the May-flies and the duns: in fact, I believe they are all of them duns with their winter clothing on, and you will find them continually varying their shades. I have never seen any of these winter flies on the wing: whenever I have observed them they have always been floating on the water, with their wings erect on the back; and the grayling suck them in whilst floating down the stream. Whether these flies are hatched at the bottom of the river, or on the sedge and reeds at the sides, I am not naturalist enough to venture to express an opinion.

It is almost useless trying to fish for grayling in the winter, unless the weather be fine and not too much water in the river: but should the atmosphere be very dry, and the water be fit, no matter how cold the air may be, the fish will be sure to be on the feed the moment the fly appears.

It will of course be necessary to dress yourself

* See Appendix, G.
in some warm clothing for this winter fishing, which may easily be accomplished, and you will then feel as comfortable as if you were in a lady's drawing-room. You have only to put on a good stout Jersey frock over your waistcoat and under your coat; and take care not to let your tailor cut away the front of your coat, which should on the contrary be square in front, and be made very loose, that it may slip over your Jersey easily. You should also wear some thick worsted socks, and should pull over your socks and trowsers some long fishermen's stockings, and over these your fishing-boots. Neither must you forget your ears and throat; for should there be a cutting wind from the North-west or East, you will find it very necessary to protect these parts from the cold.

The following are the only flies that I have used for grayling from September till March.

**SEPTEMBER.**

Yellow Fly. (See trout-flies, July, p. 47).
Gravel-bed. (See trout-flies, March, p. 44).
Gray and Red Palmer.
Coch-a-bondu.
The Governor.
OCTOBER.


Sand Fly. — *Body*: brown floss silk, or fur from hare's ear. *Legs*: pale red hackle. *Wings*: landrail. (To be made large—very good).

Gray Palmer.
The Governor.
Gravel-bed.
Yellow Fly.
Cow-dung.
Brown Fly. (See trout-flies, May, page 46).

NOVEMBER.*

Same as last month, and: —

Dark brown Dun. (See trout-flies for March, page 41).


* See Appendix, O.
DECEMBER.
Same as for last month; and vary the dark brown dun by making the legs of hackle stained yellow-olive. Try both.

JANUARY.
Same as last month, and: —
Black-bodied Dun. (See trout-flies for March, page 44).
Dark brown Dun. Ditto.

FEBRUARY.
Same as last month, and: —

MARCH.
Same as last month, with cow-dung and March brown, if on the water.
APPENDIX.

(A.)

Wax.

Shoemakers' wax dissolved in spirits of wine until about the consistency of butter. To use it, put a small piece on the inside of a kid glove, and draw the silk lightly through it; after this, draw the silk through another piece of clean leather, to take off the superfluous wax. To dissolve the wax, put a small piece into a gallipot, with a very little spirits of wine, and tie a piece of bladder over the mouth of the gallipot. Then put the gallipot in a cup of warm water, and set the cup of water on a stove (not too hot), or near the fire, until the wax is dissolved. You should keep the bladder tied on when you are not using it. If by standing the wax should become too hard, place the gallipot in a saucer of hot water for a short time.

(B.)

Another Wax.

Melt some resin in a small vessel over a slow fire, and whilst it is on the fire, and after it has become fluid, take a pure white wax candle, light it, and let it drop into the melted resin; there is no rule as to the quantity. Pour out upon a board, either greased or rubbed with wax from the candle, one fourth of the composition; then drop more wax into the remainder, and pour out one fourth more. Proceed in the same manner with the other two fourths; and thus you
will have wax of four degrees of hardness: that with the least wax dropped from the candle being for use in hot weather, the others for the different degrees of temperature of the season. You may tie flies in the hottest weather of summer with the hardest, and in frosty weather with the softest wax. After the composition has become cool on the board, it should be well worked in the hand as shoemakers' wax is. You should always have a bit of this wax in your basket, as well as some strong thread, silk, a knife and pair of scissors; and then, in the event of breaking your rod, you can make all right again in a few minutes by splicing. This wax is better adapted for coarse work than for fly-tying.

(C.)

*Varnish for the Heads of Flies.*

Coach-builders' varnish, laid on with a very fine-pointed brush.

(D.)

*Fly-making Vices.*

To be obtained of Rogers & Son, Sheffield.

(E.)

*To stain Feathers.*

Before staining feathers, it is necessary to prepare them for that purpose; and the first thing to be done is to get all the natural grease out of them, by soaking them in a warm solution of soap and soda, and washing them in it: a few minutes will suffice for this, and they must then be rinsed in clean water, to wash off all the soap. The feathers are now ready to be put into the die-pot; but with some colours, the first step after cleansing the feathers from the oil, is to boil them in a mordaunt of alum, and then to put them into the die-pot: but neither the mordaunt nor the die will get into the grain of the feathers, until all the oil has been extracted from them.
It is better, in dying feathers, not to let the water boil, as the boiling injures the feathers: with some dies, if the die is hand-warm it will be quite sufficient. After the feathers are died, throw them into a basin of clean cold water, then take them out, and lay them on cloths or towels in a warm room; they will dry in a few minutes. For the method of dying different colours, see Blacker’s ‘Art of Fly-making,’ and ‘The Fly-fisher’s Entomology’ by Ronalds.

(F.)

The Phryganeæ

“Include all those water-flies which have long antennæ; they have four wings, which when closed lie flat on their backs, the two upper ones being folded over the lower ones, such as the willow-fly, alder-fly, &c.”—‘Salmonia, or Days of Fly-fishing.’

(G.)

The Ephemerae

“Differ from the Phryganeæ in carrying their wings perpendicularly on their backs, and in having long filaments or hairs in their tail, as the March brown, and the various shades of dun, and the May-fly.”—Idem.

(H.)

To preserve Feathers from the Moth.

Keep them in tin cases, with plenty of black pepper ground fine, and leave a bit of sponge also in the case, well saturated with spirits of turpentine.

(I.)

Silk, Silk Lines, and Gut

Should be kept from the air, as it tends to rot them: silk and
gut, as well as your silk lines, when not in use, should be wrapped in wash leather and kept in boxes. On your return from fishing, the silk line should be wound off on a frame, or the back of a chair, until dry; if left wound on the reel, in a damp state, it will very soon get rotten.

(K.)

To preserve Silk Salmon-lines.

Soak them for a few hours in prepared linseed-oil, and then wind them off on a frame till dry: if you fish much, this should be done twice in the season.

(L.)

Loch Maree, Ross-shire.

"River Ewe.—This was a favourite station of the late Sir Humphrey Davy, and the river Ewe is one of the most famous salmon-streams in Scotland. The angling portion from its mouth upwards is but limited in extent (though inexhaustible in resources), being ere long crossed by a diagonal stone dike, with wily cruives to catch the salmon."

"In the autumn of 1834, an English gentleman killed in the river Ewe, in a few weeks, one hundred grilse and salmon; and the late Sir Hunter Mackenzie is said to have frequently killed twenty in a day."—'Voyage round the Coast of Scotland,' by Jas. Wilson.

(M.)

How to make a Landing-net from a square piece.

"Net a piece of dead netting of any number of loops in the row, — 3, 5, 7, 9, 11, 13, 15,—but always observe an odd number: net double the number of rows save one, i. e., 5, 9, 13, 17, 21, 25, 29, that you have netted loops: this done, draw out the foundation-string and fix it in the middle of the square piece and net round and round it."
The corner loops want a little humouring at first, for a few rounds. The first mesh at each corner will wear a triangular shape; but this will be no dis-sight, if carefully managed. Some netters make their square too large, which does not look well, and is by no means necessary. A small square will lay the foundation for a good-sized net, and you can always increase the circumference by putting in false meshes when you please, but you must observe regularity in this and divide the circle into equal parts for their insertion, otherwise the net will be lop-sided."—'Notes on Nets,' by the Hon. C. Bathurst.

(N.)

Dogs rolling in the Dirt.

One day, whilst standing by the river-side, waiting for the fish to begin to feed, I observed a spaniel which I had with me rolling on its back, and the pleasure the animal seemed to derive from so doing appeared something extraordinary. On his return to me, I was instantly favoured with a smell which was almost intolerable, and was about to beat him for his dirty habits; but instead of doing so, I said to myself, there must be some reason for the dog having done this!—and as I had frequently observed other dogs to do the same thing, I determined to find out the cause, which at last I fully succeeded in doing, and ascertained that the poor dog had a very good reason, or rather instinct, for the action; for the fleas, being unable to bear the smell, were in a state of stupor, and were dropping off him, while others had crawled to some other part of the dog, where he was able to scratch or bite them: and it is generally on the back, or the top of the shoulders, where the dog is unable to reach the fleas, that he is desirous that the dirt should be rubbed in.

(O.)

Dies for staining Hackles for the Legs of Dun Flies.

Pale Yellow Dun.—Having washed your feathers in a warm solution of soap and soda, to get the grease out, steep them in a hot
mordaunt of alum and water, until they are thoroughly saturated; then put them into a die of sumach, rather strong, and a very little bit of copperas, about the size of a pea, should be put into the die. After the feathers are died in the sumach, you can put them into another vessel with a little bit of copperas. You should always try one or two feathers first.

Pale Smoky Dun.—Having prepared your feathers as in the last, die them very lightly with sumach, using a very little bit of copperas.

Dark Smoky Dun. — Having prepared your feathers as before, put them into a strong die of sumach and copperas.

Smoky Dun. — Prepare your feathers as before, then die them very lightly with sumach, with a very little bit of copperas and one pinch of logwood.

Note. — About a pint of water is the most convenient quantity, this you can put into a small earthen pipkin. A slow fire is best, as a fire too fierce is apt to break the pipkin and boil the feathers, which injures them: generally speaking, hand-warm water is sufficient. By varying the quantity of sumach and copperas, as well as the time of leaving the feathers in the die-pot, you can get the most delicate shades as well as the strongest, and be quite independent of the blue hackles from the Welch fowls.

(P.)

_Beech Trees never struck by Lightning._

A violent thunder-storm coming on very suddenly one day whilst I was fishing, I took shelter under an oak tree. I had no sooner got there, than I heard some labourers calling to me to come away, and not knowing what could possibly be the matter, I ran to them for the purpose of making inquiry, when they told me not to stand under oaks, it being very dangerous to do so, as they are frequently struck by lightning; but that I had better remain under the tree which was affording them shelter — a large beech tree, which they assured me was perfectly safe, and that lightning never struck those trees. · I
have since made numerous inquiries of woodmen in various places, and they all agreed in saying that they had never known an instance of a beech being struck.

(Q.)

Grayling very liable to Disease.

Grayling, in some seasons, are frequently found dead in rivers. Sir Humphrey Davy, in his 'Salmonia,' states that "great numbers of large grayling died in the Avon, below Ringwood, in Hampshire, in the hot summer of 1825," and which he had "no doubt were killed by the great heat of that summer in July." In the year 1848, a great many large grayling died in the Itchen, in Hampshire, and all these, upon examination, were found to have a sore on the back very near the tail. Not having an opportunity of examining these fish with a magnifying glass, I am unable to conjecture what could have been the occasion of their death; but a short time since, in the month of August, I observed in a pond several small carp, about an inch long, some of which were dead and others dying. On examining some of the carp with a powerful magnifier, I found adhering to them a little animal exactly like a flounder or flat fish, with the exception of its having apparently two legs or fins under the belly and very near the tail. They were about the size of a small pea or vetch-seed split. In one instance, this animal had eaten off the scales of the carp on one side near the back and tail; and in another instance, one had got into the gills. I put these carp into a tumbler of water, having first removed the insects, but they all died in a few hours. The flounders were very active little animals, and moved at a great rate in a glass of water, making rapid motions with their little legs or fins near the tail. Had the grayling been examined with a magnifying glass, it is probable that there might have been found attached to them some insect which had occasioned the wound on the back.
APPENDIX.

(R.)

Staining Gut.

Be very particular, in staining gut, that you make it the colour proper for the water you are about to fish: it should be as near the colour of the water as possible; and as this varies in different rivers, so you must vary the shade of your gut.

If the water should be of that colour that would not require the gut to be stained, it is better not to stain it, as the staining generally injures it.

(S.)

Connemara.

Mr. Inglis, in his journey through Connemara, says:

"The country now became every mile of the way more interesting. The chain of lakes still continued on the left, and the mountain views on the right became bolder and more striking. There are not many finer ranges of mountains, of the same altitude, than these beautiful and finely formed mountains. The view from the summit of Mount Urrisbeg, plainly shows Connemara to be what its name denotes, — 'Bays of the Sea.' The whole western coast of Connemara is laid open, with its innumerable bays and inlets; there are wild level districts spotted by an almost uncountable number of lakes, and mostly entirely uncultivated and uninhabited. I endeavoured from my elevated position to reckon the number of lakes, and succeeded in counting upwards of one hundred and sixty. Shoulders of the mountain, however, shut out from the view some of the nearer parts of the plain; and other parts were too distant to allow any very accurate observation; so that I have no doubt there may be three hundred lakes, great and small, in this wild and very singular district. Several of the lakes have islands upon them, and by the aid of a good telescope which I carried with me, I could perceive that many of these islands had small trees and wild shrubs on them."
"Connemara is the country of salmon: every inlet and river is full of them, and this is the staple of every dinner in this part of Ireland. Varieties in the mode of preparing the salmon stand instead of other variety. Salmon boiled, salmon roasted, salmon fried, and cold salmon are produced successively in place of fish, flesh and fowl. The price of salmon is about 3d. per lb."

Mr. Inglis further remarks, in speaking of the road that skirts the western base of the mountains called the "Twelve Pins," and leads through the heart of Connemara:

"I do not hesitate for a moment to say that the scenery is the finest in Ireland. In boldness of character, nothing at Killarney comes at all near to it, and although the deficiency of wood excludes the possibility of a competition with Killarney in picturesque beauty, I am certainly of opinion that the scenery of this part of Connemara, including the Killeries, is entitled to rank higher than the more praised, because better known scenery of Killarney. I think I ventured to observe of Killarney, that no approach to sublimity was there to be found, and as in the part of Ireland which I am now speaking of, there are undoubted approaches to the sublime with all of the picturesque besides that depends on form; I think that these ought to weigh heavier in the balance than that softened beauty which at Killarney is created by abundance and variety of wood and consequent splendour of colouring. The view which this mountain road discloses, is more Swiss in character than anything I have ever seen in Ireland. The mountain range called the 'Twelve Pins' is almost worthy of Switzerland." — 'A Journey to Ireland,' by H. D. Inglis.

(T.)

To stain Gray Mallard Feathers for the Wings of the May-fly.

Well wash your feathers in a warm solution of soda and soap, to extract the grease; then put them into a basin of clean water and thoroughly cleanse them from the soda. Next put them into a hot mordaunt of alum and water till thoroughly saturated, then dip them
in a die of fustic wood for a few minutes or seconds only, merely to
give them the slightest shade of yellow; after which dip them in a
pipkin in which a small piece of copperas has been dissolved, this
will kill the yellow and make the feathers a gray-olive.

(U.)

Sea-fishing on the West Coast of Ireland.

"With a gentle breeze and a favouring current, we reached the
fishing-ground just as the evening was closing. We first threw out
our long lines, and came to an anchor. We had hit the exact mo-
ment; no sooner were our lines at the bottom, than whiting of a very
large size, and such as are never seen in England, were drawn up.
These were immediately put on the large hooks, and set out. Four
lines, baited with mussels, were continually going until darkness stop-
ped our further sport. Sundry vehement tugs at the boat's side now
indicating the neighbourhood of some of the tyrants of the deep, I
was anxious to haul in with my own hands the first fish. After haul-
ing away for some time, I was brought to a stand, my fish having, as
the sailors call it, bored downwards. After a few more struggles,
however, with the assistance of one of the boatmen; an enormous
skate was secured: he was as large as an ordinary table, and weighed
nearly a hundred weight. On our reaching shore, the only way we
could carry him was by thrusting one of the spars through his body.

"Certainly the perfection of sport is the opportunity of fishing new
ground. The delight at the first violent movement perceptible on
the long line will be easily understood; at one time was hauled in a
fine cod, then a conger eel, a large ling, skate, haddock, then only a
row of heads, the bodies having fallen victims to the ruthless com-
munity by which, in their thraldom, they had been surrounded, now
a flat fish, and here and there a tolerable turbot, served to supply us
with a splendid cargo of fish.

"As yet, all my experience on these seas had been accompanied
by singularly fine weather; but on the third day, when about twenty
miles from the Skelligs, we perceived a heavy roll of the sea coming in from the Atlantic: a hazy dulness gradually covered the horizon, and mixed its clear blue with the darker cloud; the breeze which had hitherto carried us, now died to a perfect calm; nature seemed at once to fall into a sudden repose, not even the cry of the wild bird disturbed the distant echoes of the caverns, whose hollow recesses sent forth the accumulated wave, as if indignant at the intrusive volumes.

"The darkness of day is solemn, and the spirits unconsciously flag; not a fish was moving, aware of the coming change; the sea-monsters ceased from their prey, and now nothing was seen upon the increasing masses, which appeared causelessly to blend one with another, but an occasional shoal of porpoises making towards the land. The crew looked at each other, and spoke in Irish, in a low and mysterious tone; at length my captain ventured to hint, as the sails were useless and the weight of the masts increased the rolling of the boat, we might as well have all in, and take to our oars. Our compass was duly consulted, that we might not lose in the coming mist our exact position; there was little or no current, and should we lose sight of land, Valencia might easily be hit. It was on Friday, the effect of superstition was becoming manifest, and it was not difficult to perceive that my little crew, accustomed as they were to the sudden gales which come in upon this coast from the broad Atlantic, looked as much for approaching danger in the day as the elements. Two hours were laboriously spent in pulling towards land; but the sea had, as we approached it, increased to a mountainous roll, while a few large drops of rain, and a suffocating heat, betokened the arrival of the storm. A scudding breeze tipped the surface of the swell: a distant crash was heard, which reverberated around the shores. The oars fell from the hands of my little crew, and each was momentarily on his knees, uttering a prayer in Irish, and crossing himself in great apparent agitation. This done, for I would not interrupt their devotion, I began to remonstrate with them on the terror they seemed to exhibit. I found myself utterly mistaken; there was no
fear of danger: and as each rose from the performance of what he deemed an humble acknowledgment of the divine power, I could perceive a resolution and determination which reassured me in the coming difficulties.

"The wind had now begun steadily to increase, scudding squalls passed rapidly; while, at intervals, the heavens opened with liquid fire. The masts were to be shipped: and here it was the coarse and rude stile of rigging presented its difficulties. The weight of the sprits, which was enormous, aided by the sudden lurching of the boat, as she fell into the trough of the sea, rendered the setting the foresail a matter of danger: but we were rapidly drifting towards the island, and no time was to be lost in getting the boat close to the wind. This at length accomplished, she became more steady, but the gale rapidly increased, and, as she now mounted the breaking summits of the heavy and long seas, it became apparent that we should not fetch the upper entrance of the island. A consultation was now held as to the propriety of getting up the mainsail, and at once putting her on the sea tack. The objections were, that we might lose our reckoning, and miss the entrance, whilst nothing but destruction awaited our falling below the island. The mainsail was at length got up; and now, indeed, we began to feel the value of good ballast. She stood up admirably—wet, indeed—but stiffly: and although we found ourselves, by my unluckily letting her fall off a point just as she was rising, once or twice buried in the crest of a sea, we had no apprehension but that she would, in her task, stand up for the harbour. We kept well out to sea—gunwhales under—just shivering the sails as the gusts increased, and still she kept to the wind. Another terrific crash of thunder, which appeared close over our heads, again prostrated my men. I began to be angry, as I, being at the helm, needed their assistance at the sheet.

"It was at this moment that a squall came off the headland, catching the sea at about a quarter of a mile from our little struggling vessel. The surface seemed uprooted: the foam danced over the ocean in a white mass; and, ere I could summon the attention of the
crew, the boat was on her beam-ends. Luckily, on the first touch of the squall, I had put the helm a-lee; she ran up into the wind sud-
denly; and this, perhaps, was the cause of her righting. But I had run her too sharply up; the squall caught the foresail aback, smashed the mast, and, in an instant, our vessel presented a wreck.

"The coolness and determination of my men was imperturbable, though, I confess, my own courage had long since flagged.

"We had no difficulty, except from the tremendous rolling, in shipping the mainmast forwards, and again bringing our barque to the wind; but, no sooner had we done so, than a new danger sprang up: our compass, in the fall of the foremast, had been demolished, and I immediately fixed my eye upon an opening stream of light, which had emanated from the direction in which the island stood.

"The gale now increased to a hurricane. Our spare sail was drawn round to the leeward side, to form a bulwark, as nothing but keeping her well to windward could effect our safety. Every minute we were covered with a breaking sea, and one with a crest, that de-
noted the extent to which the gale had arrived, broke in upon the forecastle, and literally smothered one of the boatmen.

"The entrance now became the last danger. The sea, rolling in from the Southern Atlantic, had assumed by this time a terrific height, and as each wave was rejected by the bold shores of either side, the mid-channel, through which our course lay, formed a mass of raging confusion, through which we ultimately dashed, with one or two seas completely over us.

"'Hurrah!' exclaimed Paddy Shea:—'We'll want no more washing for a week.' 'Hurrah!' exclaimed the rest of the boat-
men:—'It's the boat that 'll do it, any how.'

"All confidence and honour seemed now, by general consent, to be placed in the boat. Our short passage round the island to the quay was readily accomplished, amid the utmost hilarity, which the cold, wet, hunger, and even the deprivation of the consolatory pipe, could not repress.

"Those who would enjoy the pleasure of such an arrival, must
undergo the disagreeable part of such a trip; and the cost is rather extravagant."—'The Sportsman in Ireland.'

(V.)

Isle of Arran.

"Arran now began to assume a specific form, the sandy shores shone brightly in the sun, and we could distinguish the little pier which the poor inhabitants have constructed, covered with moving dots; they constituted the chief of the inhabitants of this strange spot. As we still neared the landing-place, we could distinguish shouts, and waving of handkerchiefs, or rags so estimated; but were at a loss to conjecture the cause of such joyous demonstrations, until we discovered that the whole population of the island had assembled to bid us welcome. These fishing expeditions are certainly amuse-ments of danger; for should the voyager have the ill luck to be caught on this shore by a westerly from the Atlantic, his chance of ever landing again, otherwise than by the gentle assistance of the waves, would be little."—Id.

(W.)

The Herring a Good Sea-bait.

"Whenever the herring can be obtained, let no sea-fisherman attempt any other bait."—Id.

(X.)

Coast of Connemara.

"From the island of Arran is a splendid view of the Atlantic on one side, and the whole coast of Connemara on the other; those lofty mountains, the 'Twelve Pins,' seemed to bury themselves in the heavens.

"Magnificent indeed is the scenery of the Connemara coast! Immense masses of greater height than any part of the shores of Ire-
land, still present their dark fronts to the wide ocean’s roar. The unbroken Atlantic rolls its immense mountain waves against these bulwarks of Nature, which, still unscathed, sustain the shock. The deep and thunder-like echoes add to the solemn grandeur with which the whole scene is invested.”—Id.

(Y.)

Mackerel-fishing off the West Coast of Ireland.

"It was very evident that the Bay was full of mackerel. In every direction, and as far as the eye could range, gulls and puffins were collected, and to judge by their activity and clamour, there appeared ample employment for them among the fry beneath. We immediately bore away for the place where these birds were most numerousely congregated, and the lines were scarcely overboard, when we found ourselves in the centre of a shoal of mackerel.

"The hooker, however, had too much way; we lowered the foresail, double-reefed the mainsail, and then went steadily to work. Directed by the movements of the birds, we followed the mackerel, tacking or wearing the boat occasionally, when we found that we had overrun the shoal. For two hours we killed those beautiful fish, as fast as the baits could be renewed and the lines hauled in: and when we left off fishing, actually wearied with sport, we found that we had taken above 500, including a number of the coarser species, known on this coast by the name of horse mackerel.

"There is not on sea or river, always excepting salmon-fishing, any sport comparable to this delightful amusement. Spillet and long line fishing are generally tedious and uninteresting, and unless the fish take freely, it is even with moderate success a tame and spiritless employment.

"He who has experienced the glowing sensations of sailing on the Western Ocean, a bright autumnal sky above, a deep green lucid swell around, a steady breeze, and as much of it as the hooker can stand up to, will estimate the exquisite enjoyment our morning’s mackerel-fishing afforded.”—‘Wild Sports of the West.'
Sea Spiders.

In deep-line sea-fishing, I used often to bring up, attached to some part of the tackle, the sea-spider; and no sooner was he placed at the bottom of the boat, than it was curious to observe how quickly he rid himself of his limbs, for, at every kick, a limb used to separate itself from his body.

Water Boots.

When water-proof boots are worn, it is a good plan to put on cotton socks next the feet, and over these, thick worsted, as the perspiration of the foot will go through the cotton to the worsted, and the cotton sock will be found to be quite dry, and the feet, consequently, will be kept warm.

Leather fishing-boots, after lying by for some time, are apt to become very hard and dry; when this is the case, they should be soaked in luke-warm water, until they get soft, and after that well greased with a little mutton-suet or neat's foot oil, for the first dressing; and when they are soft enough, put on any common dressing recommended for making boots waterproof: Col. Hawker's receipt is a very good one. On first wearing your boots, after they have lain by some time, you must not be surprised to find that they leak, and probably a good deal, but this will cease after two or three days' use. Never allow your water-boots to be placed near a fire, or even in a room with a fire.

For winter fishing, I prefer leather fishing-boots to Macintosh, as when wading, they keep the upper part of the legs warmer; but for summer fishing, when warmth is not required, Macintosh are decidedly the best, as they are waterproof, but leather is never entirely so.

With leather fishing-boots, it is a good plan, after returning from fishing, and previously to hanging them up, to fill them with oats to the top, which will preserve their form and prevent wrinkles.
(B B.)

Salmon numerous in Connemara.

Salmon are so numerous in Connemara, that about eight years since, during a long dry season, when they were unable, from want of water, to ascend the Ballynahinch river, no less a number than 497 salmon and white trout were taken at the mouth of the river, by one haul of the net.

(C C.)

Gaffing the wrong Salmon.

A curious and rather ludicrous circumstance occurred one day at the Ballynahinch fishery. A gentleman had hooked a salmon, and after playing him till he was exhausted, he requested the man who attended him to gaff the fish; upon which the man went steadily to work, watching his opportunity to gaff with certainty, which he at last did, and drew out a fine salmon: but the astonishment of both parties now had a ludicrous effect, for the fisherman had gaffed some other salmon.

(D D.)

Salmon in Norway.

"In twenty-seven days in the Namsen, I caught 106 salmon, which together weighed 1,558 lbs., besides twelve white trout, which weighed 36 lbs. Nine of the salmon weighed 30 lbs. and upwards, thirty-three weighed 20 lbs. and upwards each."—'Two Summers in Norway,' vol. i. p. 277.

(E E.)

To dress Fish a second time.

After pike, skate, cod, turbot, or any other solid fish has been dressed, pick it from the bones in pieces, add to a pound of fish, or
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in that proportion, half a pint of cream, one tablespoonful of good mustard mixed, one ditto of essence of anchovies, one ditto of catsup, little pepper, flour, and butter; make it all quite hot in a saucepan, then put it into the dish in which it is to be served, strew bread-crumbs over it, and baste it with butter until it is moist; then brown it over with a salamander.

N. B.—Very good without catsup, and without being basted with butter, or browned with the salamander.

(F F.)

Fish Pudding.

Take some fish that has been dressed, pound it in a mortar until quite fine, then mix it with egg sufficient to bind it, add a little mace, salt, and any fish-sauce you like, put it into a basin and boil it about twenty minutes.

N. B.—A tablespoonful of flour may be added.

(G G.)

Angling in America.

A correspondent of 'The New York Spirit of the Times,' the 'Bell's Life' of America, has a very clever angling contributor, who tells us that the Lakes Michigan and Superior abound with monster trout, which take several sorts of bait freely. Of Mackinaw trout (the Salmo amethystus of De Kay), he writes:—

"This magnificent trout or salmon is the largest of the genus to be found in the world, sometimes attaining 80 to 100 lbs. Our great northern lakes combine all the circumstances necessary to develop this fish in its fullest perfection. Hundreds of miles of pure cold water, from 500 to 1000 feet deep, well stocked with food, afford our Salmo amethystus ample range and good pasture. With the exception of the great pike or Muskalonge, he devours all before him. The white-fish is said to be his favourite food, but nothing comes amiss to him, as he can be taken with divers baits, from a fresh herring to
APPENDIX.

a deer’s tail. In the northern part of Lake Michigan and in Lake Superior this fish is in great perfection, and when first caught is, I think, equal to the salmon in firmness of flesh and richness of flavour.

"In July, 1844, the writer was crossing the lake in a schooner, and taking a line which he found on board (the signal halliards), with a deer’s tail made fast to one end, and a good-sized cod-hook, he began to fish. About fifty yards of line were let out, the schooner going about five knots. In about half an hour he had a bite, and hauled in his fish ten feet, when the hook broke and he was lost. He put on another hook, and soon hooked a second trout, which, after a short struggle, parted the line, carrying off about six yards of it.

"The Brook or Speckled Trout.—This beautiful fish is not found in any of the streams putting into the lake south of Green Bay; but north of this point, both on the Wisconsin and Michigan shores, it abounds in every river and brook. In the rapids of the Sault Ste. Marie, they are found in immense numbers and of a very large size, being frequently taken of three, four and even five pounds, with a piece of salt pork for bait. Fly-fishers have great sport there, both with this and the preceding species, which has been taken at the foot of the rapids with a large salmon-fly. Lake Superior is however the Paradise of the fly-fisher, as every stream that empties into that great body of water is full of trout. A friend of the writer who, in 1840, went from Mackinau in a canoe to Sault Ste. Marie, up the lake of the Bois Brule river, which he ascended to its source, and then descended the St. Croix to the Mississippi, supported a company of six persons with his fly-rod. Wherever they encamped, he could get trout enough for a meal in five minutes; and in some of these unfished and virgin streams the fish were of immense size. No need here of green drake, red hackle, or white miller; two duck’s feathers tied to a hook. These streams are alive with three-pounders.

"The Muskalonge, (Esox Estor).—It is the opinion of common observers, and some fishermen, that this is only an overgrown pickeral; but to the careful observer, many distinctive characters are obvious. He is a shorter and thicker fish, with a smaller head, than
Esox reticulatus, and gives you the idea of a fish in better condition. A muskalonge weighing 20 lbs. would not be longer than a pickerel weighing 12 lbs. The bronchial, dorsal, ventral and anal fins have a different number of rays, which establishes it without a doubt as a separate species. It grows to an immense size; the writer has seen one weighing 20 lbs. He is caught there in the spring and autumn with the seine, but in general keeps off in deep water in the summer months, differing in this respect from the pickerel, which passes the warm weather basking in the shallows. He is sometimes taken by the lake craft, when trolling for trout, and sometimes by a professed angler with the rod.

"The Pickerel, (Esox reticulatus).—We give the New England name of this fish; it is known in western New York, and in the south, as the pike, and the term pickerel is given to the glass-eyed pike (Lucioperca Americana). This species sometimes grows to the size of 12 or 14 lbs., but the more common weight is about 2 or 3 lbs.: 110, weighing 250 lbs., were taken by the writer and his friend in July, 1841, in the Catamank, which enters into Lake Michigan. Not many are caught in the lake, but those are finer and better fish than the river-fish.

"The Pike-perch, (Lucioperca Americana).—One of the best fishes to be found in the western waters. Naturalists say he is a true perch, though so voracious and predatory in his habits as to be generally supposed to be a pike. Our pike likes deep water, the foot of rapids or mill-dams. To catch him, use one of those miniature lobsters called craw-fish, let out twenty yards of line, and stand fast; in some fifteen minutes you will feel a heavy pull at your line, different from the savage rush of the pickerel or the lightning-leap of the bass. He gives up in a few minutes."

(H H.)

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