

**MESSRS. ALLCOCK AND CO.,
STANDARD WORKS, REDDITCH.**

READERS of the *Fishing Gazette* have for very many years been kept up to date with the novelties, patents, and improvements in fishing tackle for which this up-to-date firm have become so famous. Although the name of "Allcock" is as familiar as "Household Words," it may not be given to every reader to say that he would know him if he met him in Fleet-street. The accompanying portrait is that of Mr. Samuel Allcock, and it must be confessed the word "General" (as befits the head of such a firm) is written prominently in the firm yet gentle features.

It is no secret that Messrs. Allcock and Co. are wholesale dealers only, but it would be safe to predict that the majority of their specialities are obtainable at almost every tackle dealer's in the kingdom. From an elaborately printed and splendidly illustrated catalogue of fishing appliances manufactured by them we are enabled to present to our readers several views of their extensive workshops, accompanied with a description of the various processes which hooks, flies, baits, swivels, rods, reels, lines, floats, &c., undergo before they are "placed upon the market."

The history of anything connected with trapping or snaring for the purpose of obtaining food, dates naturally from the earliest known records.

The "gentle art" of fishing finds mention, therefore, in the literature of most remote ages, but only in a most elementary form, and the manufacture on a large scale of implements for fishing is, of course, of comparatively recent date.

In the neighbourhood of Redditch fish hooks appear to have been made towards the close of the last century, on a very limited scale; but since then the trade has wonderfully developed, and now S. Allcock and Co. find employment for



MR. S. ALLCOCK.

the different classes of work into several departments.

FISH HOOK DEPARTMENT.

The wire used in hook making is best English cast steel, which must be first quality, otherwise it will not temper properly, the gauge or size

SECOND, BEARDING.—A number of the wires thus prepared are arranged on a plane surface, with their right-hand ends against an upright. The barb, or beard, is then cut by means of a hollow ground knife which, being pressed forward and deftly turned by the hand of the workman, opens the barb to the required angle, great care having to be exercised in this operation to avoid cutting too deep or opening too wide, or the barb breaks when used.

THIRD, FILING.—The points are now carefully filed. Using a pair of tongs, made specially to hold the wire, and rapidly turning the same, a point is filed on it instantly, forming either what is termed a Hollow, Kirby, or Dublin point. All best hooks are filed in this way by hand, thus giving to the point three or four knife-like cutting edges, enabling it to penetrate much more quickly than the less expensive needle-pointed hook.

FOURTH, BENDING.—It is now necessary to give the hook its form, and for this purpose the workman holds a mould, fashioned like the pot-hook of our copybooks, mounted on a wooden handle. With one deft movement the beard is hooked round the shorter end, and a quick turn brings the shank straight with the shank of the mould.

FIFTH.—The hook is now taken, and by the aid of an ingenious machine, or hammer, the end of the shank is either ringed, flattened, or marked. If intended for salmon or trout flies, it is filed to a delicate point, or knobbed.

PROCESS SIX is most important, and is that of the hardening of the hitherto soft steel hook. This is carried on in a specially constructed building, and consists in placing the hooks in a white-heated furnace, watched by an experienced workman, who withdraws them on seeing them attain a certain appearance, and plunges them into a vat of oil; this converts the temper of the hitherto soft hook into a highly brittle condition.



HOOK WAREHOUSE.

more than 500 persons. They have branch houses in London, Paris, Toronto, and a silkworm gut factory at Murcia, in Spain.

The work of manufacturing the millions of fish hooks and the innumerable other articles connected with fishing, involves an immense amount of detail, which necessitates dividing

varying according to the requirements of the hook to be made.

FIRST.—The operator takes a part of a coil of wire in his hand and placing the ends in a gauge, and the correct length being arrived at, he quickly and sharply cuts them into lengths with a large pair of shears.

More description will not suffice to do justice to this stage of hook manufacture.

SEVENTH, TEMPERING.—The hooks are then taken from the oil, mixed with heated sand, and placed in an iron pan over a fire, both sand and hooks being kept in constant motion. Ever and anon, a hook is picked out and tested, and as soon

as one lot is deemed sufficiently tempered, it is passed on one side and another takes its place. Of course, the experience of the operator dictates the finish of each parcel, and the man is always selected from those of the highest capabilities. The heat required for each style and size of hooks varies, and there is all the difference between a hook too hard or too soft. In the former case, immediately it is struck against the hard jaw of a fish it breaks, either going at the bend or at the point. Nothing is more irritating to the fisherman than to find the fish pricked and gone, and the point also minus, and this not discovered possibly till he has hit, and, as he thinks, by some fault of his own, missed the rising fish. The best hooks are those which are tested, and found of perfect temper, and they are, of course, of the best price. Those which, by some mistake or accident, or unavoidable chance, are not deemed A1, are placed on one side and sold at a considerable reduction.

EIGHTH, SCOURING.—For this purpose the hooks are placed, with water, &c., in oblong barrels, which are kept in motion by steam power from one to two days, thus removing all scale, and

packages of hooks are then labelled, and carefully dried, to avoid any risk of rust.

There are over two hundred different sorts of hooks, each having from twenty to thirty sizes, amongst which may be mentioned Quadruple, Treble and Double-brazed, Live bait snap hooks, Lip hooks, Kirby, Limerick, Dublin Limerick, Carlisle, Kendal, Sneek, Round bent, Crystal, Mackenzie, Roach hooks, Chestertown, Sprout, &c., &c., and the many varieties of cod and other sea hooks.

FISHING ROD DEPARTMENT.

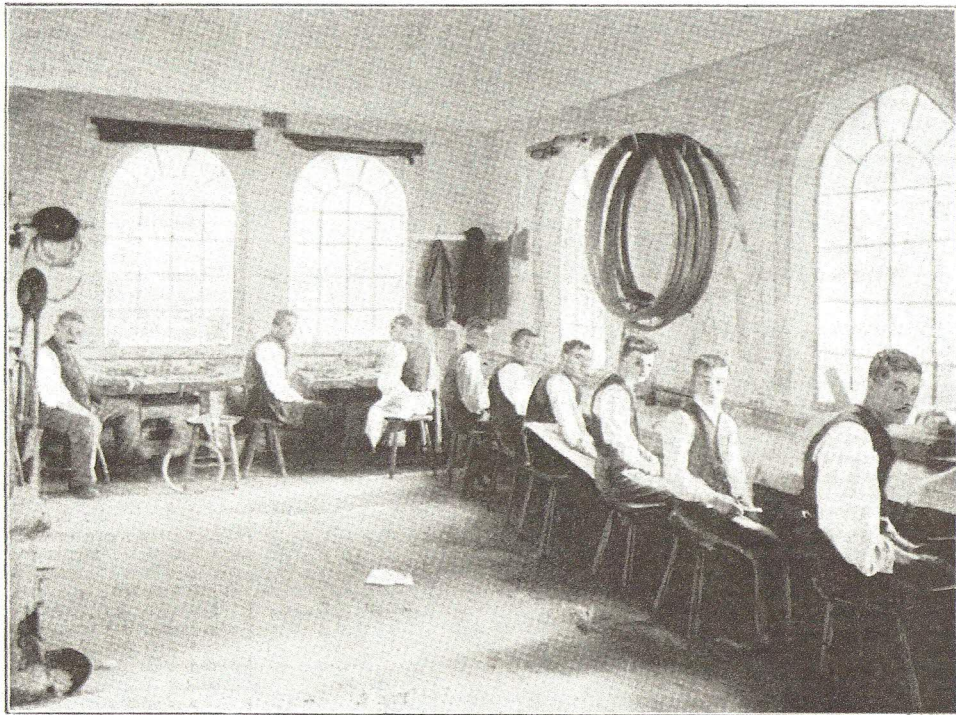
Various materials are used for the manufacture of fishing rods—steel, wood, cane, &c., &c. Steel, if used alone, is found to be unsuitable, on account of its weight and too great spring, but placed in the centre of cane-built rods it answers fairly well, although we cannot recommend it. Of woods, we use Greenheart, Washaba, Nicobar, Blue Mahoe, Lancewood, Hickory, Ash, Red Deal, Hazel, Snakewood, Cedar, Beefwood, Ebony; and of Canes, East Indian Mottled, South Carolina White, Japanese, Tonquin, Spanish White, Bamboo or Jungle, &c. Not only has the

ferrules are then put on, and the rod tapered, so that an even play is obtained from butt to tip.

The ideal rod should be perfect in strength, elasticity, quick power of recovery, and with a minimum of weight. This being a work of great nicety, only a few excel in producing a first-class rod. After whipping on the rings with stout silk, and fastening ferrules, winch fittings, &c., the rod is then polished by the application of several coats of very fine varnish, allowing one or two days to elapse between each coat. This is of great importance, as without the necessary time, the durability and appearance of the rod cannot be insured.

For lightness and convenience in carrying spare tops, the butts are very frequently hollowed. Boring is a very delicate operation, requiring great skill and care, or, otherwise, the butt will be destroyed by the long augur passing through the side. Rods are made in all lengths, from nine to twenty feet, and in two to twelve joints.

Rods for sea fishing are made much stouter and stronger, as they have to stand the strain of not only a long line and heavy lead weight, but



FISH HOOK BARBING AND FILING.

leaving the hooks ready for the ninth process of polishing.

NINTH.—Polishing is performed in two ways. The hooks are placed in an oblong bag, with sawdust, and are rapidly shaken from end to end, until they become quite bright. The other way is to place them in barrels, moving more or less rapidly round on their bases, inclined at an angle of forty-five degrees from the perpendicular. It is found that this inclination has a greater and more certain effect towards the end in view than an upright or horizontal position would have.

TENTH.—Consists in the application of various methods for protecting the hooks from the corrosive action of water. Japanning—that is, giving the hooks several coats of a specially-prepared black japan; tinning, or coating them with tin; rust proofing, browning, bluing, and colouring them red for worm fishing, or blue, green, yellow, &c., for fly dressing.

ELEVENTH.—Is that of counting and papering, and packing in hundreds and thousands, which is done by girls, who take up the hooks with a knife, and balancing them on its edge, turn over their hundreds with incredible speed. The

greatest care to be used in the selection of proper growths of wood, but, as many of the foreign woods have little or no sale in the timber market for general purposes, great difficulty is often experienced in obtaining an adequate supply for fishing rod making, which is only met by the direct importation and storage of large quantities, necessitating the outlay of a large capital. Preference is given to the fine-grained foreign woods over native growths, on account of their strength, durability, and lightness. The wood arrives in baulks, measuring 20ft. to 50ft long, by 20in. to 24in. square. These are sawn up into planks of 5ft. to 6ft. long, and about 3in. thick. After this, the wood is carefully examined, and all faulty pieces are thrown on one side, only the best straight grained being retained. The planks are stored in large timber sheds, specially constructed with a view to the thorough seasoning of the wood, which takes from two to three years. When perfectly seasoned, these planks are again taken to the sawmill and divided into lengths of the required thickness, and then handed to the rod maker, who, by hand, with a plane, reduces them to the required size. Top joints are usually spliced with jungle cane. The

of big, powerful fish. They are made from six to twelve feet, with large revolving pulley top rings, and either with a cleat or the ordinary winch fittings.

In this department, landing handles are made in wood or cane—hollow, for carrying a spare top; binged or telescopic, for convenience in carrying. Also landing rings in various qualities, of iron, fine steel, phosphor bronze, or whalebone, and landing nets in all sizes. A gaff, in telescopic form, of particularly nice workmanship, is made in addition to the cheaper form of landing hooks.

(To be continued.)

The turbot is particular as to the quality of his food. The bait used for him should be very fresh—if it happen to be in the least degree tainted the turbot will not touch it. The most enticing baits are those small fishes very bright in colour. The Thames lampern was formerly used in large quantities by the Dutch, as they could be easily kept alive at sea, combining bright silvery colour with great power of resisting the usual effect of mutilation.—B.

fortunately he did not succeed in landing the fish, or doubtless a veritable record would then have been created. The experience there described is by no means an unusual one, and it emphasises my remark respecting the strength of tackle necessary.*

The months of August, September, October, and November are the best, the fish are then in splendid condition, and give grand sport.†

There are several fishermen in the town, the one I recommend anglers to engage if possible is young John Lydon; his house is close to the hotel, and under his guidance sport is certain.

I shall not attempt to describe the scenery of the lake. I could not if I would, but there is one most beautiful island I cannot resist mentioning. Its name is Ardilaun, and it is certain to arrest the angler's attention at once. Its position is directly in front of Ashford House, Lord Ardilaun's residence, and it stands out prominently among the many islands on account of its magnificent foliage and beautifully sloping wooded shores. In its immediate neighbourhood is, perhaps, the best water for the brown trout. Those I have mentioned were all taken within a stone's throw of it.

runs the river Blackwater, which joins the Corrib near Ashford House; salmon run up this river in considerable numbers, but permission to fish for them must be obtained of the resident steward.

Before leaving Lough Corrib and its neighbourhood I would just mention that about midway between Cong and Galway, on the Connemara shore, there is another favourite angling station—Oughterard. The hotel (Mrs. Murphy's) is very comfortable, but its accommodation is limited, and anglers must engage rooms some time in advance. It is considered to be the best portion of the lake for *ferox*. The best means of reaching it is by car from Galway, distant some twelve miles; an enjoyable ride through the most picturesque scenery imaginable.

(To be continued.)

THE FISHES OF NORTH AMERICA.*

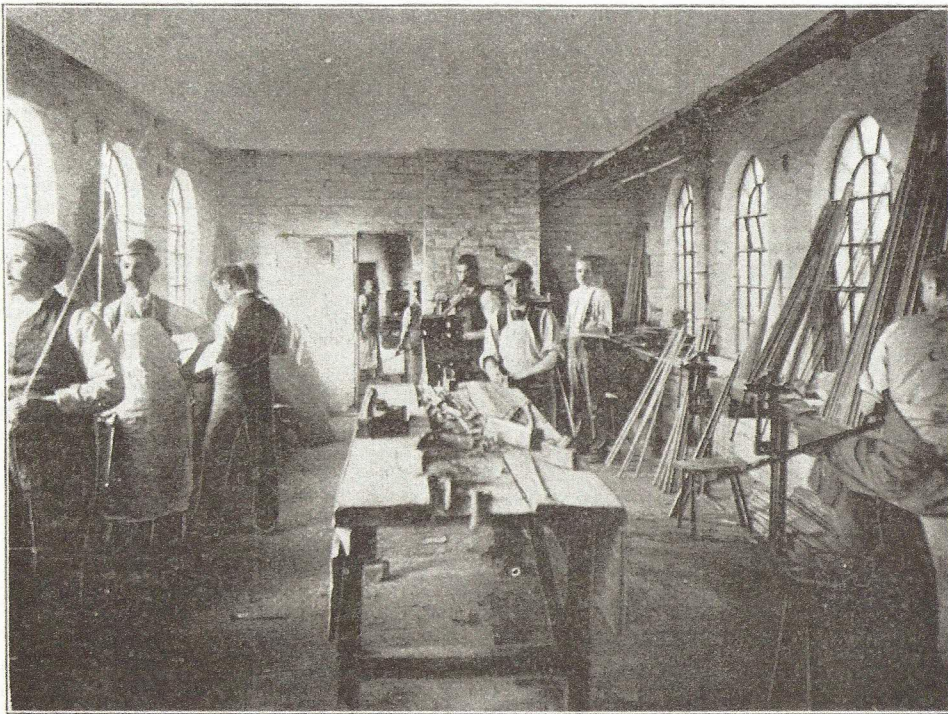
"HONOUR to whom honour is due;" and honour is really due to Mr. Wm. C. Harris, editor of the *American Angler*, for his bold and laudable enterprise in publishing a novel work, in forty monthly parts, treating of "The Fishes of North

of the forty parts costing over a thousand dollars), that no publishers in America could be found to risk their money in the enterprise, on account of which Mr. Harris has been obliged to take the burdensome chance upon his own shoulders. Years of effort have been spent in the preparation; and, doubtless, it has been no trifling labour to secure the necessary number of subscribers to warrant the venture. The price is one and a half dollars for each part, which is prohibitive to the man of ordinary means; but the more wealthy enthusiasts in angling and in works of art may find in the complete work such a volume to grace their drawing room tables as will prove to them "a thing of beauty and a joy for ever" to please themselves and their visitors.

MESSRS. ALLCOCK AND CO,
STANDARD WORKS, REDDITCH.
(Continued from page 21.)

FISHING ROD DEPARTMENT.
SPLIT CANE RODS.

For many years East Indian cane has been used for fishing rod making, but about twenty



ONE OF THE ROD SHOPS.

Camping out upon some of these islands is a most enjoyable way of spending a holiday. Provisions can be brought daily, either from Cong or Galway, by the steamer, which must, of course, be met by boat. The fisherman Lydon or the captain of the steamer will give the visitor all information as to which island is the most suitable for the purpose. With the exception of Ardilaun, I believe all are free, and rarely if ever visited. In addition to Lough Corrib there are many smaller waters in the close vicinity—quite close, indeed, there is a pretty little river, whose name I forget for the moment, containing trout and salmon, and it can be fished at all points from the banks.

Within the demesne there are several very deep, dark pools holding some big pike, and through it

* The bait Mr. P. mentions should be made a note of. † There seems to be a very general opinion that the winter months are the best for pike fishing, and no doubt this is so in some waters, but I cannot for a moment accept it as being universally correct. The pike in some of the Irish lakes spawn very much earlier than in England, and I am firmly convinced that the best sport is to be obtained in the months mentioned, to say nothing of the more agreeable conditions under which it may be then followed.

America." We are in receipt of a copy of the fifth part, which comprises eight quarto pages of philosophical text on fishes, four engravings, and two full-page coloured lithographs representing fishes in the act of swimming—one, that of the weakfish or squealeague, the other the Rocky Mountain whitefish—the movement of the water being almost visible. These two works of art are not only handsome illustrations of fish, but also rich in colours, taken by a special artist who accompanied Mr. Harris in his piscatorial pursuits to snatch the momentary opportunity of accurately depicting the rainbow hues of the fish, which are seen at their best immediately they are captured. The plates reproduce the exact anatomical proportions as well as the colouration of the fish known in ordinary parlance as the "sun trout" and the "shad trout;" the first-named specimen fish weighing 3lb., and the second 1lb. It may fairly be stated that few, if any, such works of art have seldom, if ever, been issued from a lithographic press either in Europe or America. Indeed, such is the great cost of production (each

* The Harris Publishing Company, 19, Park-place, New York.

years ago we began to make by the greatly improved method of cutting the cane into triangular sections and splicing the same into a six-sided rod. These canes are brought down the Hooghly to Calcutta, and are there carefully selected by our agent. As nearly all canes are more or less damaged by worms, great difficulty is experienced in obtaining thoroughly sound material. On arriving in the manufactory these are all examined again, and only those found perfectly free from defect are made use of.

The cane is then roughly sawn and carefully planed into tapering sections, without injuring the outer silicious bark, and made to fit so exactly as to form a solid hexagonal rod, protected by the unbroken flinty surface of the cane.

The consequence is there is obtained that combination of lightness, pliability, and strength which is necessary to form a perfect rod.

The actual weight of many of these trout rods does not exceed six to nine ounces.

For light roach rods the White Spanish and Japanese canes are considered the best, the Carolina canes being used for the heavier classes.

FISHING REEL DEPARTMENT.

The materials used in reel making are silver, aluminium, gun metal, bell metal, brass, ebonite, xylonite, hard woods, and cork. Reels for trout and salmon fishing are usually made of gun metal and brass, and vary in size from 1½ to 5 inches. Wood is almost exclusively used for bottom fishing. Ebonite, bound with German silver, being equally used for all classes of fishing.

The metal is first cast into suitable shapes and sizes for the sides and other parts of the reel. After thoroughly hammering, it is carefully turned on lathes, mounted on steel beds to give perfect rigidity, and as the different parts of the reel require to be turned perfectly true, and each part must be adjusted exactly, none but skilled workmanship is employed.

To suit various styles of fishing, reels are made in several designs, such as plain, check, revolving plate, multipliers, contracted, balanced handle, and with removable check. They are made in various qualities, varying from a few pence to many shillings.

Some few years ago we patented the "Eureka" Reel, which is formed by striking out, at one blow,

still called Indian weed, and looked upon as a species of grass, and any attempts to prove its being really the entrails of an insect are derisively resisted.

The following information respecting the preparation of the silkworm gut into an article of commerce is taken from communications to the editors of the *Fishing Gazette*, London, and the *Forest and Stream*, of New York, furnished by Mr. Samuel Alcock, principal of the firm of S. Alcock and Co., when on his visit in the spring of 1886 to his gut manufactory at Murcia in Spain, during what is termed by the natives the "gut harvest":—

"The worms are bred by the country people in their cottages, which usually consist of but two rooms on the ground floor. In some of the villages near Murcia, this is the sole occupation of the people, some of whom only rear the worms, while others also perform some of the initial stages of gut making. On one side of the living room of these cottages, the worm-breeder ties together a number of bamboo cane reeds, forming a bed from 12ft. to 15ft. long by 4ft. wide, and raised from the floor about 4ft. The worms are spread all over these beds, and are

end between the thumb and finger, and rub it with wash leather. It is then sorted according to strength, thickness, and length into the various qualities, re-rubbed, and tied in hanks of 100, and again into bundles of 1000 and 10,000 for sale."

Gut is usually classified under the following heads, viz.: Refina (very finest), Fina (fine), Regular (medium thickness), 1st and 2nd Padron (thick or strong). Marana, Imperial, and Hebra are very thick and strong, for salmon fishing. Gut varies in length from 6in. to 18in., and is made in three qualities—Corta (or common), Estriada, and Superior.

In making up the better qualities into casting lines or leaders, the greatest care is taken in picking out the best strands; and not a little skill and experience is requisite in making the necessary knots. All the best casts are stretched, and their weight-bearing qualities tested, so that, in spite of their fragile appearance, they are capable of supporting a heavy strain.

The breaking strain of salmon gut when made into casts is as under:

Sizes.....	1/5	2/5	3/5	4/5
Strain ...	15	12	10	9 lb.



SILK WORM GUT WAREHOUSE.

from a single sheet of brass, the plate and sides, which are then turned up parallel to each other, the spindle inserted, and the handle rivetted on, thus avoiding all screws and loose parts, and obviating the necessity of constant repairs.

Among the latest improvements in the manufacture of reels, the most striking and novel is one for which letters patent have been obtained, viz., a gun metal salmon reel for either spinning the minnow or throwing the fly. The spindle of this reel runs upon steel centres supported by strong springs, and revolves perfectly free from the handle, thus enabling the caster to throw a much longer and lighter line direct from the reel. By a turn of a milled rim the handle is brought into play and the reel becomes an ordinary check. One of our best reels is made of gun metal with ebonite sides, a light, strong, and pretty reel for either trout or salmon.

THE SILKWORM GUT DEPARTMENT.

This is, perhaps, the most curious and interesting of the many departments in the manufacture of fishing tackle. All anglers make use of silkworm gut, but large numbers are quite ignorant of its origin. In some parts of the kingdom it is

fed five times daily by covering them with mulberry leaves.

"Before feeding, all the dead and sickly worms are picked out, so that the others are left in a healthy state. They are kept about fifty days, ring which time they sleep twelve days.

"When they are ready to spin the cocoon, they creep upon branches of small trees, which are placed over the cane bed. They are taken off, killed by being put into vinegar, where they remain for six hours, and then into water. The worm is then broken in half, exposing one, two, or three yellow sacs, the ends of which are taken between the thumb and finger and pulled out as long as they will go, care being taken not to flatten the gut in so doing. When a sufficient quantity, say two or three thousand, is drawn, it is tied in bunches, and hung up to dry in the yard or garden. Some worms produce one gut, some two, and a few three. It is afterwards sold by weight to the gut finishers. The latter steep the gut in hot water, with soap and a little soda, when the outer skin or film comes off easily. It is then washed, bleached, and hung up in rooms to dry. Girls are employed, who place each strand between their teeth, holding the other

Lake and Trout Casts:

Padron	Regular	Fina	Refina
8	7	5	4 lb.
1 x Drawn	3	3 x Drawn	1 lb.

The above is for casts tested quite dry, but if soaked in water for a short time they will stand a greater strain.

The shorter lengths of the various qualities are used for "tying on" hooks with fine strong silk. This work is the object of constant supervision, as the greatest importance attaches to the rigidity and firmness with which the hooks are tied. For convenience in carrying these gut hooks, the best qualities are supplied in the wrapper patented by S. Alcock and Co., by which the hooks can be removed singly as required, without disturbing the remainder.

In order to meet the constant demand for a fine and practically invisible gut for casts, &c., quantities of the gut as received from Spain are subjected to a further operation, which consists in passing or "drawing" each strand through exceedingly minute holes in a steel plate. This supplies what is termed "drawn gut."

(To be continued.)

Molesey weir. A more curious case of capture was that of Mr. G. Marshall, a first class angler, who, in the time I am writing of, resided at Brewer-street, Oxford-street. He hooked a Thames trout which, after playing some time, leaped from the water, and shook the hooks completely out of its mouth. On losing the fish, Mr. Marshall let his spinning flight run down with the stream; then suddenly pulling, he, by chance, hooked the trout in its pectoral fin, and secured it. The fish weighed 12lb.

He also caught a trout of 16lb., which had broken away from him the preceding day, and recovered his set of hooks, which were still in the fish's mouth. I might multiply instances of this angler's skill, but one more will be sufficient. He captured in Shepperton Deep (Oct. 3, 1822) a salmon weighing a trifle over 21lb. on single gut, and at the time, he was without a landing net.

The late Mr. John Harris, of Weybridge, with whom I frequently fished, often told me that when he was a lad, he used to go with his father netting salmon at Weybridge, Laleham, and Penton Hook, and that between the years 1822 and 1830 some scores of salmon were captured each season; and higher up the Thames at Boulter's Weir,

and induced in his capacity as one of the conservators of the Thames, to convene an influential gathering of anglers, from whose ranks the society was formed, rules and resolutions formulated, with the desirable object of improving, increasing, and protecting the stock of fish in the river, and thereby providing sport for those devotees of the "gentle art" who fished during the "forties."

Mr. Edward Jesse, the naturalist and angler, was one of the society's founders, and in 1836 stated "that he regretted to say good angling in Thames was fast declining, and it could be attributed to steamboats, which disturbed the water so much, that a considerable quantity of spawn was loosened and washed away from where it had been deposited; also gas refuse and other nuisances were suffered to poison the river. Much mischief might also be attributed to the use of illegal nets, and the negligence of those whose duty it was to detect the poachers."

I glean from Mr. W. H. Brougham's interesting little *brochure* on the early days of the T.A.P.S., that during the six years, 1839 to 1844 inclusive, no less than eighty-three poachers were convicted and fined £138 13s., also that

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FLOAT DEPARTMENT.

FLOATS are made of various materials, namely—cork, wood, celluloid, aluminium, glass, also porcupine, swan, goose, and other quills. The slabs of cork are first cut in squares, and then turned on a lathe into various sizes and shapes, from the ½ in. pilot or round float to the 4 in. pike float. The shapes are egg, thin barrel, sneck head, barrel, pilot, live-bait or jack float, trimmer, "Eclipse," the "Aome," the "Nottingham," &c. After the body of the float is turned in the rough, it is then ground on a stone; next, the cavities, unavoidable in nearly all cork, are filled up with putty, then the plug, consisting of porcupine quill, or quill and wood, is inserted and bound in its place. Then the rings are added and whipped on. Finally, the float is painted and varnished.

Floats for roach fishing are usually made of quill, without the cork.

Various novelties have been introduced into this department—among them the luminous or



BALES OF CORK FOR FLOAT MAKING.

Maidenhead, a salmon was caught in 1824, which was the last recorded from that part of the river.

The *London Gazette* (an "official paper") of November, 1785, published that "salmon shall only be taken from the 25th day of January to the 10th day of September, yearly; but none of less weight than 6lb."

A first-rate angler in the thirties appears to have been a Mr. Cox, of Bermondsey, and trout were plentiful in the Thames; his custom was to get afloat in his boat at Maidenhead or Windsor, and drift down with the stream, "spinning" all the way, to Hampton. On May 24, 1835, he landed at the Bell Tavern in that riverside village, after such a fishing expedition, with fourteen trout, some of large size. This old inn was the birth-place of the Thames Angling Preservation Society, on March 17, 1838; the founders of that society being seven well-known anglers of those days, all of whom have since joined "the great majority."

It would appear that prior to 1838 the metropolitan river afforded indifferent sport, no doubt owing to incessant poaching, and destruction of young fish and spawn. In consequence of this meeting at the Bell, the Lord Mayor was approached,

twenty-nine nets were burnt. Gas refuse is not now allowed to be placed in the river; an efficient staff of keepers have done away with illegal netting; "trailing" is prohibited, and the use of "night lines" made a misdemeanour; while the fish are now protected in their takable seasons and sizes. All these facts are moves in the right direction; but, with the ever increasing "army of anglers," and so many prizes given for "gross weight competitions," which tend so seriously to deplete rivers of small fish, I fear angling in the Thames will never again be so good as during the "forties and fifties."

Records are not plentiful of large pike being caught in the Thames fifty years ago; but "Daniel's Rural Sports" mentions a 31½lb. fish, which, in 1802, was caught at Godstow, near Oxford, in a ditch. This fine fish had probably gone from the river into the ditch to spawn, and was snared with a wire noose.

ALFRED JARDINE.

If you are interested in Books send 2s. 6d. in stamps for a copy post free every week for 3 months of "THE PUBLISHERS' CIRCULAR AND BOOKSELLERS' RECORD," St. Dunstan's House Fetter-lane, London.

glow-worm float, self-cocking float, and the Nottingham Rider float, self-striking, roach, Jardine's, *Fishing Gazette*, and celluloid, all of which have been protected by letters patent.

LINES.

Nothing is so important as a good line.

A few years ago the great demand was for twisted and plaited hair lines, then came a mixture of hemp and hair, and silk and hair, combining the lightness of the hair with the strength of the silk.

Owing to the great advancement in the manufacture and method of waterproofing silk lines, the demand at the present time is for a flexible braided pure silk line, waterproofed, with a smooth, even surface that will neither crack nor peel off.

The lines of this class take at least four to six months to produce, on account of the thinness and slowly drying properties of each coat of enamel.

Our best silk trout and salmon lines are made from carefully selected Naples silk, plaited into a solid square line. Much more silk is required for making a line by this process than by the

usual method, but considerably greater strength and durability are obtained. A process of water-proofing is then employed, by which the thorough permeation of the material is ensured. It takes at least six months before the line is finished, and then it requires at least another six months to season.

These lines are used for all kinds of fresh-water fishing. Lines for sea fishing are chiefly made of hair, hemp, flax, cotton, and jute, in all lengths, and the wants of the sea fisherman are now met by the introduction of a variety of patterns of lines, ready mounted, suitable for whiting, mackerel, pollack, cod, conger, bass, &c., &c.

ARTIFICIAL FLY DEPARTMENT.

Although in the manufacture of all the manifold instruments that combine to complete an angler's equipment there is scope for much ingenious and artistic workmanship, in no department is it more readily seen and acknowledged than in the dressing of artificial flies. From the simple sea, or mackerel fly, to the most imposing specimen of the fly dresser's art, or from the wondrously neat and tiny trout fly to the brilliant and gorgeous monster intended for the bewilderment of some

qualities, great difficulty has been experienced in meeting the same, especially as this class of work can only be done by well trained and experienced hands.

ARTIFICIAL BAIT DEPARTMENT.

This department requires a large amount of ingenuity and care in the preparation and invention of new patterns, a multitude of which have made their appearance during the last twenty years. Some have disappeared, but others, like the Devon, Phantom, Spiral, Swivel-tail, "Bell's" Life, Celluloid, Destructible, Champion, Spoon, &c., still hold their own. Among the smaller kind of baits there are life-like imitations of wasps, humble bees, grasshoppers, frogs, earth and bloodworms, shrimps, prawns, &c.

The materials used in making artificial baits are gold, silver, iron, copper, brass, tin, aluminium, lead, wood, paper, celluloid, silk, fish skin, gutta percha, quill, horn, pearl, &c.

SWIVEL DEPARTMENT.

A large variety of patterns of these indispensable articles is made, such as the box, hook, spring, buckle, and watch-spring swivels. On a

and the heavy sea lead; India-rubber cloth for wading stockings and brogues; leather for the cheap boys' fly book, and the rich and beautifully-fitted book of Russia leather; silk and many other textiles for fishing lines, and strong jean for the fishing-rod covers; brass for reels, ferrules, and for baits. These, with the materials of which mention has already been made, show what a number of markets must be studied, and how wide a knowledge of various materials must be possessed by a firm who manufactures and supplies all the requirements of an angler's equipment.

The excellent quality of Messrs. Allcock's goods has been abundantly proved by the fact that they have received the highest awards at all the International Exhibitions in which they have taken part. As manufacturers, they could not show at local exhibitions; but, at the same time, their goods were shown by their customers, who received either a gold medal or highest award in each case.

The list includes: 1851, London; 1877, South Africa, the highest award; 1878, Paris, a gold medal and special diploma; Sydney, the highest award; 1880, Melbourne and Toronto, the highest



HICKORY AND GREENHEART LOGS.

lordly salmon, there is ample room for the display of individual talent.

An immense variety of material is demanded to complete the requirements of the ever-increasing number and variation of patterns. Contributions are levied from almost every member of the feathered tribe. Starlings, jays, turkeys, swans, peacocks, guinea fowl, golden pheasant, and the less familiar jungle cock, bustard, eagle, toucan, Indian crow, macaw—provide a portion of what is necessary, and are, together with hackles from the game cock, fur from the seal and water rat, hare, and other animals, dyed mohair, and pigs' wool, in daily demand.

It is almost impossible to give any description of the method of fly-making which would be satisfactory, as all are dressed by first tying the hook to the gut; then the body of the fly is made; the hackle is next put on, and then the wings, the great interest attaching to their preparation being the deft and rapid manner in which the various materials are securely fastened around the hook, and the beauty and variety of the finished flies. Owing to the ever-increasing demand from all markets for flies of the better

wire of suitable size are stamped the boxes or bodies of the swivels; these having been separated and reduced are, by two ingenious machines, drilled, and the ends bevelled. The terminal loops are inserted and formed by hand. Brass, steel, and German silver are the materials used for their manufacture.

In this department we have several patent swivels, not only for fishing, but for other purposes, such as sail, flag, and ropemaking, &c.

The principal departments of the manufacture of fishing tackle, as it is carried out in every branch at the "Standard Works," have thus been glanced at.

Perhaps there are few trades in which so many and varied classes of materials, usually widely disconnected, are for once associated. Steel, for the manufacture of an infinite variety of articles, from the tiny fish hook—requiring ten thousand to weigh an ounce—to the heavy harpoon; tin for bait cans and kettles, tackle and flight cases, of all shapes and sizes (an ingenious ground bait can, designed by an enthusiastic Russian angler, Baron Tcherkassoff, being worthy of special reference); wood from all lands, for an endless variety of purposes; lead for the tiny split-shot

awards; Berlin and Wurzburg, gold medals and diplomas; 1881, Norwich, a gold medal; Adelaide, the highest award; 1882, Murcia, the highest award for silk-worm gut; 1883-4, Calcutta, a gold medal; highest award and special diploma, Adelaide, 1887; Melbourne, 1889, highest award, first order of merit; Paris, 1889, gold medal for fish hooks, fishing rods and tackle.

Large consignments of their goods are exported to all parts of the world, including Canada, United States of America, South America, the Australian and South African Colonies, India, New Zealand, China, &c.

GUT, says Mr. Samuel Allcock, can be truly called the angler's friend, besides which it is now being largely used in our hospitals for surgical work, as it is found to assimilate much better than silk. All classes are stained various shades, to suit different coloured waters.

ANGLING ON THE KENT.—At a recent meeting of the Fishery Conservators, a desire was expressed that Mr. Benington, Fishery Inspector, should hold an inquiry in the district as to the salmon, &c., of the rivers running into Morecambe Bay.