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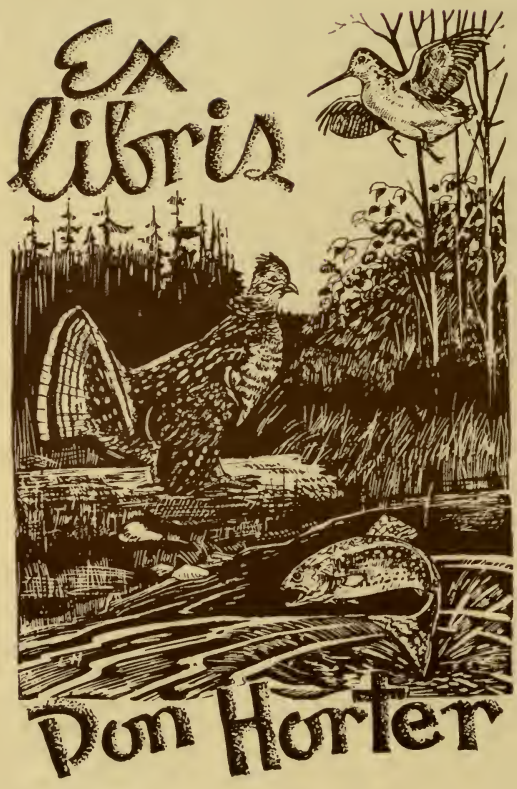

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i Large Paper

First issue - Jarvis
with R. Ackermann's imprint, and
his catalogue at the end

s Reissued with a new title in 1845, with R
rint of H. G. Bohn, there is however only one
ssion. "Theophilus South" is a pseudonym for
d Chitty Esq. Barrister-at-law. I think he was a
of the Joseph Chitty who wrote a "Treatise upon the
Laws & Fisheries".

First Edition

F. R. Lee R.A. pinx.

W. B. Scott sculpt.

FRESH WATER FISH.

From a Picture in the possession of W. Wells Esq.

THE

FLY FISHER'S TEXT BOOK.

BY

THEOPHILUS SOUTH, pseud.

Gent.

Edward Chitty

SH456
C5

THE

FLY-FISHER'S TEXT-BOOK.

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AND MANY ILLUSTRATIVE WOODCUTS.

THE

FLY-FISHER'S TEXT BOOK.

Chapter I.

THE AUTHOR DISCOURSETH ON THE DELIGHTS OF FLY-FISHING—SETTING FORTH ITS SUPERIORITY ABOVE ALL OTHER SPORTS.

WHAT angler will acknowledge other pleasures equal to his own? Yet is it not the sport alone which draws us with magnetic influence to fix us spell-bound by the river's side. No—we have yet a brighter source of true enjoyment in the pure air and tranquil country scenes, which wait upon our wanderings. One while, amid the wildest sources of the mountain stream—anon, beside the lovely lowland river. Now tempting its placid depths of pool,—its freshening runs,—its eddying, gurgling, glistening rockholes;—or pausing to admire the majestic plunge of some adjacent waterfall. What is so beneficial to a body worn with the many cares of study, or close application to a worldly calling, as the free relaxation inwhich

we revel when we quit the noise and bustle of the crowded town, to feast upon the mountain breeze? Or what can be so renovating to the wearied mind as to contemplate Nature's loveliness, with placid thoughts, which gladden and improve the heart, and turn its peaceful reveries in gratitude to Nature's God?

Angling is a pastime which *has* been much and frequently villified and ridiculed. I use the past tense advisedly; for since so many men, good and great, rich and mighty, not only in worldly, but also in mental lore, have appeared as its advocates, it has long since ceased to be considered a mean, or despicable art. Some few have ventured to pronounce it a *childish* amusement: but I consider that the love of it derives not its existence from juvenile habit alone; for though it mostly "grows with our growth and strengthens with our strength,"—and though the old adage "once a chub-hole always a chub-hole," may fairly be read "once an angler, always an angler," oftentimes it will win a tyro of ripened years, or be adopted as the recreation of old age. I need notice no more striking instance of this than the conversion of Sir H. Davy, who handled a *fly*-rod, at all events, for the first time when he was Professor of the Royal Institution; although he did so, under the preceptorship of one who might, perhaps, remember the use of thread and a bent pin in

childhood, my late esteemed friend Sir Anthony Carlisle. The bare mention of such name, is surely enough at once to deaden the barb of derision.

Some writers have expressed surprise at the enthusiasm of anglers, seeing that the produce of the sport seldom appears to counterbalance the general disappointment and dulness. But surely they have not traced the subject up to its source. The sportsman's real object is not, in general, to acquire a *quantity* of game; else he might purchase it at less cost and with less trouble in the public markets; but it is, that he may enjoy the pleasure of an art. The game is but the *means* of his excitement.

The quantum of success by no means constitutes the test of pleasure in any field sport; else how insipid would be fox-hunting! But on the average we fishermen catch as much *per* head, compared with the expenditure of coin upon tackle, as any other field sport produces under like comparison.

Dr. Johnson has the discredit of having defined angling to be a stick, and a string, with "a worm at one end and a fool at the other," this is a poor illogical sarcasm. The doctor knew nothing of the skill called for in the rare art. I know many followers of the craft who by their skill would have landed "the great bear" himself, with a gut-line not thicker than a single thread from his

"three ribbed hose," and a genuine O'Shaughnessey bend, with as much ease as the doctor would have *hoisted* a minnow with Chinese twist as thick as whipcord, and a No. 5 hook, from out the tiny rivulet. I doubt not but that the science of the fool would beat all the doctor's learning in this respect!

Again as to the *folly* of fishing—if science be the standard which should direct our choice, look at the names of those who have from age to age enrolled themselves as its supporters, and the disciples of Walton will then appear as the sands of the sea, compared with the admirers of Nimrod. —Field sports are but "an employment for idle time which is then not idly spent," and I know no reason why the question of superiority among them should ever have been mooted. But without seeking to give offence to any, I might fairly venture to assert that there are, and have been, more thinking men among anglers than any other class of sportsmen, and in my humble judgment there is likewise more to think about. Let no one in his ignorance say that there is folly in fishing; but rather take my word for it, that there is a science in its practice and in the economy of fish, the depths of which would not be sounded by a lead-line as long as the days of Methuselah.

Chapter II.

BOOKS ON ANGLING—LONDON TACKLE THE BEST—THE FLY-FISHER'S OUTFIT—SIEBE'S WEIGHING MACHINE—GUT IN GENERAL AND HOW MADE—SALMON AND TROUT GUT—REEL LINES IN GENERAL—DITTO FOR SALMON AND TROUT-FISHING—REELS OR WINCHES IN GENERAL AND FOR SALMON AND TROUT LINES—SIR F. CHANTREY'S PATTERN—GAFF—SCYTHE BLADE AND STICK—LANDING-NET—CLEARING-RING—ROD SCYTHE OR "ANGLER'S FRIEND"—TWISTING MACHINE—THE AUTHOR INFORMETH THE TYRO AS TO AN APPROPRIATE DRESS.

I HAVE read almost every book on angling extant, and out of, I know not how many, for Pickering published a fearful catalogue, entitled "Bibliotheca Piscatoria," at the end of his "Piscatorial Reminiscences," and some have appeared since, I cannot pick one volume that has pretensions to anything like a perfect treatise. This is surely a disgrace to our craft; since it tends, either to the conclusion, that there is not among us one who can express his thoughts, if he possess any, as to the practice of the art; or else, that we are all too jealous to divulge our secrets in a pastime so generally enjoyed. Many of these books have some good point or points, but none are altogether

worthy of attention, in regard to their practical information. Upon the subject of fly-fishing (although it unfortunately gives no more than the outline of bright ideas), the work which evinces most thought and industry in its author, is Captain Williamson's "Vade Mecum," published in 1808. In another work, Ronalds' "Fly-fisher's Entymology," the drawings and descriptions of flies, natural and artificial, render it not only an acquisition, but almost absolutely essential to an angler's "armory:" and that author's observations on the senses of fish, are, I think, well worth attention, though I do not entirely subscribe to them, and may have occasion to dispute their correctness in some respects hereafter.

With respect to the fly-fisher's outfit, let me premise, that it is not prejudice which gives preference in my esteem to London-made tackle; but rather a strong conviction that it is much more serviceable, better constructed, and of better manufacture and materials, both to the eye and hand, than any which can be procured from the country or even from the sister countries: and for one obvious reason, viz. that we have in this immense metropolis, the emporium of the world, the greatest command of capital; which always attracts to it the best artificers and materials; while the best sportsmen of all kinds (who, in

fact, direct the style of manufacture), always re sort hither to make their purchases.

The requisites in the angler's outfit for a short excursion are; two hanks of salmon-gut, three ditto of stout trout-gut, two ditto, very fine ditto, a salmon-rod of eighteen feet, a double handed trout-rod of about fifteen feet, a light single-handed rod of about twelve feet, two salmon reel lines, three trout ditto,* a salmon-reel, a trout ditto, a gaff, stick, and strap, a landing-net, one hundred and a half of salmon-hooks, the like of trout ditto, a clearing-ring and string, a rod-scythe (called by its maker "the angler's friend in need,") and what is equally useful, a gardener's pocket saw-knife or hatchet, and a twisting machine, weight, and guide. These, with a fly-book, will complete the usual outfit.

But there is one other article, which, although not prone to novelty seeking, I must recommend to the notice of my brethren. This is the "Sportsman's Weighing Machine." The principle of it is somewhat the same as that in the common eighteen-penny iron spring balance: but this to which I allude, is not only more correct owing to the reduction of internal friction,

* A reserve of these last two articles is always desirable, since breakage towards their respective centres renders them comparatively useless.

but being made of brass, and more highly finished, is so neat and portable, that it may very conveniently be carried in the waistcoat-pocket. It is altogether a very beautiful contrivance, and, by the way, emanates from the same clever engineer, who, amongst other things, invented what is called, "Marriott's Patent Circular Dial Weighing Machine," now so universally used; as well as of the well known diving helmet and dress. These machines are calculated to carry any weight, measuring by a quarter of a pound, up to 10lbs. and 20lbs. or more. One for 20lbs. is about half an inch diameter, and five inches in length, and for 10lbs. it is much smaller. To fishermen they are desirable instruments, because they reduce "fisherman's weight" to standard measure! or give by the waterside the exact weight of a fish the moment he is taken: moreover, they are extremely handy to test the strength of hooks—gut-lines, and so forth, and enable us to feel what strain we may reasonably throw upon our rods, while playing a fish. I need hardly say they will weigh beef and mutton as well as fish: and are, therefore,

of as much general domestic use as any other weighing machine of this kind can be. The maker has also contrived one still more accurate, similar to the circular dials above mentioned, which, though they weigh up to 30lbs., are no larger than a watch made forty years ago—these, however, are rather more expensive.

I shall now devote some space to a more particular description of the good and bad qualities of the articles mentioned in the foregoing list.

GUT.—In choosing gut of any kind, be not too much guided by an apparent thickness, but, as far as your time and patience will permit, select such as is perfectly round; and to prove it so, try each piece by turning it quickly between the fore-finger and thumb; for if it be in anywise flat, this will only be effected with difficulty, and then you may safely condemn it. Each piece or length, should be also to the teeth, hard like wire, —colourless, and transparent as glass, which testifies strength—free from unravelled fibres, which are attended with an inclination to split or peel—knotted roughness, which shows almost actual rottenness; the spaces between the knots when pulled lengthways between the fingers, being soft and weak; or flashing lights when seen in a slanting direction, which indicate flatness, and consequent weakness. It should possess stiffness, too, in bending, and with this should be com-

bined elasticity; so that after being doubled upon itself (in the shape of a loop for instance), it instantly returns to its straight position. If, in thus doubling, it assume anything like angularity, it will not do—for it surely possesses unequal degrees of strength, even if, where it forms into such angles, it be not absolutely rotten.

When gut is first imported, and before exposure to the air and light, it is sometimes of a yellowish tinge; therefore do not discard it on that account, if it be at the same time transparent, and possess the other good qualities.

Hereafter I shall explain how to dye gut; I would therefore recommend you to buy it in its natural state; whereby you will more readily observe defects, which the stain might conceal, and be also satisfied that deleterious ingredients are avoided in obtaining the colour you require, or which I may advise.

It may not be altogether uninteresting to learn the mode by which this beautiful material is produced, and which I find no where mentioned. It is made in the silk provinces, where the silkworm is much larger than any we see in this country. About two days, or less, before the worm would spin its cocoon—that is, just as it begins to assume a transparency about the head, it is immersed in an acid of some kind, weaker, I apprehend, than vinegar, and colourless; after

soaking about eighteen hours, the insect is taken out, and on opening it, two short thick lobes, or guts, are discovered towards the upper end of the body, perfectly transparent, though tinged with yellow. Each of these, on being separately drawn out with great care, stretch, and become opaque as they do so, and ultimately transparent, to the length of upwards of a yard, and are then left upon the full stretch to dry, and the good part, from ten to twenty inches, ultimately becomes fit for use. For its thickness, its strength is really wonderful, since, under fair circumstances, a good length fit for salmon fishing, will lift *at least* 15lbs. dead weight, when tested by Siebe's machine. I have myself made gut out of our native worms; not fit for use, certainly, because too fine; yet the experiment was sufficient to show the principle of its production, and therefore very interesting. We find it to be the silk in its unripe state, and not a part of the organs of the insect itself (as its name would imply), that forms this invaluable assistant to our skilful endeavours against "the shadows that glide through the waters."

SALMON GUT may be in substance as thick as you can find it, and you will possess a treasure, if, in one hank, many lengths are as thick as a middling sized pin, or stout netting silk. In length, the part for use, should run from sixteen

to eighteen inches at least; and the longer the better, provided the substance be uniform.

The thicker TROUT GUT should be of the diameter of ordinary sewing-silk; whilst the thinner sort may be almost the very finest you can procure, provided it be "round and sound," and keeping in view all other requisites for strength. Ten to sixteen inches is the usual length of each thread. "Store is no sore;" so a few extra hanks cannot be objectionable, especially as so much is consumed in twisted lines for salmon-fishing, one hank not making more than three twisted bottom or foot-lines, as you will find hereafter.

REEL LINES.—I have had some talk with one of the best line makers in London, who is a practical angler to boot, and he thinks nothing equal to the silk and hair for fly lines, or the plaited and prepared silk for trolling or spinning. We talked of fly lines made of human hair, and his objection to them was their liability to "*sponge*" up much water, and to stretch and shrink to a great degree. He had found them shrink a foot to the yard in water, and if pulled when dry to stretch in the same proportion. I have not made up my own mind on the subject, never having tested them in actual use. If, as he says, they soak up so very much water, that is a decisive objection. They are not certainly so strong as a

new silk and hair line of equal thickness; but as human hair is thought to defy the rot and ruin even of the grave for many years, I feel satisfied that a line of this latter material would be much more durable; for the silk in the ordinary line is soon worn out by friction against the rod's rings, if ever so great care be taken to preserve it from rot, and then its strength is gone.. For my part I never expect the point of a line to last above half a season's fishing, although I never put my line away without first drying it well. Human hair lines must necessarily be nearly double the expense of others. As to their elasticity I should rather look upon it as an advantage than otherwise, especially in striking and playing a fish. However, take the silk and hair for the present, for these on the whole appear the best. Some persons prefer twisted silk alone, lines of which are made at Nottingham. Some use twisted, and some plaited hemp, which latter I know you can meet with in Liverpool, though I do not recommend them, because they are generally too stout, and, however nicely prepared (which they may be by being boiled in linseed oil and other secrets, such as Marshall's preparation), I do not consider them so lasting, or capable of being thrown so lightly, as the silk and hair. Economy is their chief recommendation.

SALMON REEL LINES.—Now as to these, they

should be from sixty to eighty yards long—you require this latter length especially, where a salmon inclines to run much, and from your contiguity to trees or bushes on the bank, you cannot follow him or change your position. Another advantage is, that as the end which is so much on the water and so constantly passing through the rings of the rod in shortening or lengthening your throw can never be depended on for soundness above one season at most, removing the damaged part, sufficient length still remains for ordinary rivers and places, while a joint or splice in a line should always be avoided, if feasible. The material, I repeat, should be silk and hair twisted, and the end, for about twelve yards, may taper slightly; though, perhaps, it is as well to have it of uniform substance throughout, of about the thickness of the "D" in the third octave in your sister's harp (to measure which, borrow her string guage), or thinner than a new shilling, which is strong enough for any salmon and any where, provided it is used skilfully. Many old and experienced salmon fishers adopt much stouter; yet *I* prefer fine fishing, and am ready, for a wager, to kill any fish under 50 lbs. in a tolerable situation with the substance I allude to. It will bear at least 18 lbs. *dead* weight, and perhaps more.

TROUT REEL LINES should be of the same

material, viz. twisted hair and silk, but necessarily much thinner, and from thirty to fifty yards in length ; or even longer for lake-fishing, where heavy trout are expected. However, thirty yards is quite enough for a light trout rod. They must taper gradually for the last eight or ten yards to the end, where, in substance, they should not exceed the first " D" on the aforesaid harp guage, or very thick netting silk, while the stouter end should be about equal to the second " D."

REELS.—Be particular in the choice of winches or reels; they should be proportionate to the size of your rod and line, and should carry the latter easily, without being guided on in winding up; else there is fear of entanglement. Reels require very good and delicate workmanship, great strength, and little weight of metal ; all the parts should be closely fitted to each other, and, in particular, the inner revolving plate should be well applied upon the exterior fixed one. They should run freely, otherwise you cannot wind up steadily ; and the larger the diameter of the circular plates, and the narrower in proportion the pillars or bars between them, the greater will be the length of line taken up at each turn of the handle. Your trout reel should be a multiplier; but as the increase of the speed by means of the cog-wheels diminishes the power, so for large fish,

such as salmon, you should have no multiplying movement. Both kinds, however, should have check or click machinery, which prevents slight catches from pulling the line off. Mind, I don't mean the old fashioned stop, that being quite *passé*, although recommended by a modern publication on the subject. The usual kind of winches have an axis on which the line is wound, of from about a quarter to a half inch in diameter; but the most improved have, instead, barrels of about one inch diameter, so that the very first foot wound on is taken up at the rate of three inches to every turn of the handle, whereby the speed is greatly increased. Mr. Eaton, of Crooked Lane, has the pattern of this kind of winch, which was devised by the eminent sculptor, and devoted fly-fisher, Sir Francis Chantrey. For salmon the plates are about five inches diameter; and for trout, of about three and a half inches, and they are very narrow between the plates. They are tremendously strong, but certainly rather too heavy, in my humble judgment, and necessarily very expensive; yet the advantage of speed in winding up is great, and more than counter-balances these objections. If the line you apply to a reel be anywise too short to fill it, you may always add to the thickness of the axis any material, such as a split cork, or strong twine, and thus gain the advantage in speed of winding up.

For the convenience of carriage, and to avoid breaking or bending, you should have what are termed, "return handles;" that is, handles screwed on with a large headed screw, which, when the reel is out of actual use, you can, with your fingers, readily take off, and reversing it, put the ivory handle over the plate and screw it down in that position. If, from economy, you prefer one for salmon with a plain axis, a reel of three inches and a quarter diameter across the plates, and one inch and three-eighths between them, will very well carry a sixty yard line, the substance I mention; and another half inch in diameter will afford ample room for twenty yards more.

GAFF.--Your gaff hook should be without a barb, and of tough-tempered, well-pointed steel, but not too large; try its temper before buying it. Some have on the back a kind of sharp curved blade or scythe lying flat with a lateral hinge, used for cutting branches whereto your line or hook may have taken a liking. The whole should be attached by a strong screw into a brass socket, on the head of a stick, about two feet six inches long. This you may sling over your shoulder upon a leather strap and swivel hook, and can fish with it in that position without inconvenience. In lieu of this stick, however, many have a brass telescope handle, not unlike

that of a drawing-room hearth broom, which folds up into so short a length as to lie conveniently in the coat pocket. Others again adopt the plan of having the gaff stick in two or three pieces, each of about eighteen inches, to screw together, very similar to a gun cleaning-stick. These pieces are carried, detached, in pockets made for the purpose, inside the left front of the fishing-jacket. You have always plenty of time between hooking and landing a fish to put it together, and have the convenience of four and a half feet in length, which in some places is almost absolutely requisite. Let me here caution you, unless the hook also revolves on a hinge so as to shut up, to carry a cork on its point, or you may, perchance, gaff an odd fish—yourself to wit!

LANDING NET.—For trout fishing, to screw into the same handle, a landing net is requisite about fifteen to eighteen inches diameter; and it is very convenient to have its hoop *hinged* so as to fold for the pocket. Or, I have found it extremely handy, and far preferable for trout streams, the banks of which are low, to make one thus; take a stout cane, of about six feet in length, and along the middle of its length lap tightly a split piece of the same, thinned off at its ends; then bend and bind together the two ends of the whole length, so that it assumes the form of a pear or balloon; these ends form a short handle, which

is to be bound over with leather like a whip-handle. Thus you have the hoop and handle of your landing net, to which your own ingenuity must tell you to attach a net of sufficient size; and the whole machine is so light, that by a loop of string of the upper broad part you may carry it handle downwards at the river side, suspended to a hind button on your coat, and moreover if you are careless, drop it behind you and never miss its weight!

CLEARING RING.—You must also have a *brass-jointed clearing ring* and strong line of considerable length attached to it. This often proves serviceable in breaking off any improper attachment which your fly may form for sticks or stumps at a distance in the water; and you should never fish in any way without it.

ROD SCYTHE.—The rod scythe is a machine for the like use as regards trees on land, and is similar in shape to a reaper's hook, somewhat like a note of interrogation (?) It is made very small and light, of good rough steel, with the inner edge very sharp. That part which answers to the handle in the reaper's hook, is hollowed so as to receive the point of a rod; and to use it, you attach it to the cord of your clearing ring by a loop or hole with which it must be provided. Its use is this, that when your fly gets hung up in a tree in a place where the length of the rod

will reach, (and it seldom attaches itself higher,) placing the scythe on the top of the rod, you hook it on to the branch to which your fly hangs; then removing your rod and pulling by the string, you can either cut away the branch, if slight enough; or at least, if the worst comes, cut the gut close to your fly, and thereby save straining your tackle. This I met with at Coleman's, the cutler, in the Haymarket, who denominates it "the angler's friend." A *small garden saw, knife, or hatchet*, is not a bad thing to carry about you for these purposes.

A TWISTING MACHINE and weight are absolutely necessary for a salmon fisher who manufactures his own lines, &c. and I can only say buy it at a good shop and see that it turns smoothly and evenly.

THE ANGLER'S DRESS.—Perhaps I shall be thought hypercritical in saying that some consideration is necessary as to piscatory costume. Need I prove that one colour is more perceptible than another? Need I point out the fact in natural history, that fishes have eyes!—that they are shy, timid creatures? White or black are not, I think, much better than scarlet, and you should avoid any marked colours, whether light or dark. As far as my observation upon this point extends, I have remarked that the colour least discernible in the distance, is something of a light shade,

between a green-olive, and a slate-colour; and presuming that it partakes of the same invisible quality when near, I should recommend it. Moreover not knowing that fish have any predilection for a black hat, let me recommend a light drab. Though, perhaps after all, the fisherman's truly invisible garb is woven of care and caution!

John Dennys, on this subject, says in his poem published A. D. 1613—

> "And let your garments russet be or grey
> Of colour darke, and hardest to discry,
> That with the raine and weather will away,
> And least offend the fearful fishes eye."

Though, by the bye, I by no means agree with his annotator, W. Lauson, that "white" is good because it is likest the sky? Is white linen drying on a hedge hard to detect in the distance? or is a white cloud soothing to the sight?

You may as well furnish yourself with a pair of *wading boots*, unless you are bent on rheumatism. There is no sort which I can at present recommend. Those of Mackintosh material are very good as long as they last, but that is not long. I was unfortunate lately in missing an opportunity of buying a most excellent pair, owing to a little hesitation; they were gone when I had made up my mind to adopt them, and by the way, who do you think had purchased them? The Marchioness of H——! Bravo feminine Piscator! I glory in your taste for the art; but

wherefore should you wade? They were made of solid India rubber; but there is not another pair like them to be bought in the kingdom. In the Strand they make them also of solid sheet Indian rubber, but the price, alas! is five guineas, which is the only thing against them, for they would last, I believe, for ever; besides being so perfectly impervious to the wet, as to keep the angler in comfort and health; although *his only* success may oftentimes be sought and found as here depicted,—by "wading the trout stream."

WADING THE TROUT STREAM.

Chapter III.

OF FLY-RODS AND HOOKS.

Now as to FLY RODS IN GENERAL let me premise, that in them particularly, the strength of every inch is put to the test more or less on each cast of the line, and therefore will they require the best workmanship and most careful selection. In choice of them, it will be necessary very minutely to examine the grain of the wood of which each piece is formed, observing that it should run, as nearly as possible, straight from end to end up each joint; if it crosses, or if you find any knots, or the slightest appearance of crack, or other blemish, it should be at once condemned. Moreover never be beguiled into trying a rod inside a confined shop; rather carry it into the open air, where you can freely prove its elasticity, and other qualities. In Liverpool and elsewhere, they make salmon rods of *East India bamboo*, of which I cannot approve, though they are certainly lighter and very strong; yet they are mostly too stiff, and can never be made to play and work so

pleasantly or equably as those made of the materials I shall mention. The wood of which a rod is to be composed, should be first well seasoned for four or five years, at least, in the log; and should then be cut into slips for joints, which should remain at least two or three years more, before they are finally worked up into form. This will at once show you the importance of dealing at an old and well established shop, as no small dealer or manufacturer can sink his capital so long; and it should also convince you of the wisdom of not grudging a good price for so important an article. It will, perhaps, also soon be found advisable to resort to one of the patent modes of preparing wood against dry rot. Not that such a disease often troubles rods, because when cut into slips, the air has sufficient action to prevent it. But by the method used in those patents, (Sir William Burney's at all events,) the wood is much strengthened.

The *colour* of the rod is not in general much regarded, and may not materially signify; although, I for one, am inclined to think even this worthy of consideration; for as one colour is doubtless more discernible to the human eye than another, so, if we can judge from analogy, it will be to that of fishes. At one time, I preferred black stained, but, upon observation, unstained is less visible. I also much question

whether it is not a disadvantage to have rods highly *varnished;* since in the sunshine this reflects the rays of light, and is consequently liable to excite the attention of the keen eye of the fish as he is about to rise to the lure, or perhaps prevent his rising altogether. Often have I detected the presence of a brother sportsman at a pool half a mile off, on a bright day, simply by the flash of his rod, his person being altogether hidden by intervening substances. And I am convinced some advantage would be gained by giving to those points more attention. We yield great credit to fish for acuteness in their visional organs in connection with the colour of the flies we use, but are utterly careless in concealing that which ought to be hidden. And it may be, that to the rough unvarnished dullness in the rods of the lower order of fishermen, their frequent advantage over those more curious in their tackle is to be attributed; "since," as Dennys says,

> "——the fishes are affrighted with the least
> Aspect of any glittering thing or white."

Varnish, or something in the nature of it, is absolutely essential to the preservation of rods, as well as to prevent their being temporarily affected by rain, or damp air; but it would be an improvement if some less glittering coat were substituted.

It is essential to have at least three spare top-joints to every fly-rod; especially when we stretch far away from the maker: for even if an accident do not occur, a month's daily wear must loosen the splicing.

As some diversity of opinion prevails as to the *make of a top joint*, some prefering it spliced, and others of one entire piece, I must trouble you with a few observations upon the subject. Let me premise that I advocate the former, as, in my *personal* experience, none can play better or are stronger, (as long as the splicing holds together), than such as are made according to the London fashion. The stoutest piece next to the upper "joint" in these, is lance-wood; then, come two or three pieces of East Indian bamboo split out of a thick stock: and lastly, a splice of whalebone, forms the point or tip of the rod. The advocates for solid tops imagine that the different kinds of wood cause a varied and improper degree of pliancy to the whole rod; and they especially object that the whalebone tip gives too much weight to that part. Now the only objection that I have ever found to spliced tops, is that they occasionally get out of order by the glue at the joints giving way. A trifling annual expence, however, (if we are not ourselves clever enough to perform the reparation), in addition to the yearly coat of varnish, which

every rod ought to have in order to its general preservation, will remedy that inconvenience. The advantages of spliced rods I conceive to exist, in the spring being more true, and better capable of graduation; while the woods which compose it are lighter, and quite as strong as any entire piece can be.

In proof, it is very certain that in making a top of an entire piece, it would be madness to use a young shoot of *any* kind of wood; as it would contain pith down its centre, and could not be so tough or strong as that of older growth. It must therefore be cut out of a solid of more seasoned stuff. Yet when it is planed down, tapering to a fine point, the grain is cut through obliquely and so rendered liable to split or peel; and the more it is reduced, it becomes limp and worthless, instead of more elastic. I think the tops made of entire pieces at Liverpool, of wood coming from the Essiquibo River, are too stiff, from the impossibility of reducing them sufficiently, and are therefore objectionable for fly-rods, however desirable in other respects. If, on the other hand, you take several pieces of wood, each lessening in thickness as well as in fineness of grain, and splice them together, inasmuch as you are not required to cut through the grain to taper them, (rubbing down with sand-paper being sufficient to adapt the ends uniformly to each

other,) there is no diminution in their several strength. Moreover this affords an opportunity of introducing, as I said before, the best sort of wood for elasticity as well as lightness; viz. Bamboo cane, which could not be procured of sufficient length for a top without splicing, owing to the intervention of the natural joints or knots; and lancewood, though too heavy, and perhaps too brittle when so much reduced in substance, for the point of the rod, is yet elastic; and, forming the thickest splice in the top, constitutes a medium weight and pliancy of wood between the hiccory of the "*joints*," and the bamboo of which the second and other splices of the "*top*," are composed. There is another advantage in spliced tops, namely, that if a breakage should happen, the damaged part can be replaced without the expence of an entire new top.

WHALEBONE TIPS.—Now as to the "*weighty*" objection to whalebone tips, what an exquisite sense of feeling must a man have to detect it! But supposing it to be perceptible, look at the immense advantage whalebone affords. Elastic toughness is introduced in the thinnest part of the rod,—the part which is almost solely engaged in receiving the first shock of striking a fish; and as the fault of fishermen is mostly to strike too forcibly, it is as well that they should have something not liable to break. Notwith-

standing that a top may be very well, in good hands, without whalebone, I can at the same time see no disadvantage in having it: and it is, assuredly, less liable to fracture, (if fracture be possible), than any wood of the same thickness could be. Besides, as has been observed elsewhere, if, in carrying a rod, you happened to poke it, point foremost, against the ground, or a tree, it is ten to one a wooden tip would fly. A recent work on Fly-fishing,—Shipley and Fitzgibbon, at page 35, quotes Bambridge as an authority, and recommends that "whatever number of pieces the rod is to be composed of, between the but and the top-piece, they must all be cut from the same log." This mode of advice I cannot understand, for, in the following page, they recommend as many various woods to be used in a rod as I do.

ASH OR WILLOW BUTS.—According to the work before alluded to, the but of a rod should be of willow, on account of its lightness, rejecting ash as too heavy. This merely alludes to trout-rods, however, whilst my remarks equally apply to those for trout or salmon. Willow is much lighter than hiccory, and if you put an hiccory joint above a willow but, how can you, unless the but be very thick and clumsy, obtain an equally graduated weight throughout the rod? Besides which, you will find that weight *in the hand* is advantageous, and surely a trout rod of

fourteen ounces is not likely to fatigue, (by the difference of weight in ash and willow), in the few hours of fishing.

As to the comparative strength of ash and willow, the former bears the palm beyond a doubt; and if you attempt to throw thirty yards of line against wind with a willow wand, all I can say is, were I in your place, I should like to have a spare ash staff at hand! What muscular strength is requisite to wield a trout rod? No muscular exertion ought to be called forth, in trout fishing *at least*, otherwise something else is surely defective. For myself, I can say, that I have fished from five in the morning till nine o'clock in the evening, the greater part of the day against a strong wind, with my single handed trout-rod,—measuring fourteen feet, three inches, and a half, and weighing one pound two ounces, and generally throwing from twenty to thirty yards of line, and never experienced any trouble from its weight, or the exertion required for its free use.

Hollow Buts.—I do not advise any one to have a hollow but. To be sure it is often recommended as being less heavy; yet, as I have already stated, weight in that portion of the rod is no disadvantage, but rather assists in the facility of recovering a rod to its perpendicular, when fishing. Nor can a hollow, by possibility,

be so strong; and as the only other object of having it so hollowed out, is the convenience of carrying a spare top, in case of accidents, in my opinion, *it is worse than useless;* because the tops are thereby inevitably injured at the ends. If the carriage of a spare top be the only recommendation to hollow buts, have a gaff, or landing-net-pole made hollow, of sufficient length. I would rather even strap the spare top to a piece of common straight wood, and sling it in some way at my back, if I went to the river unattended, than forego solidity in this part. But I am always inclined to leave such incumbrances at my nightly resting-place, carrying with me a sharp knife, and plenty of well-waxed twine in lieu, to repair damages to the single top that accompanies me.

THE GROOVE AND RING for attaching the winch should be about a foot from the end of the but of a salmon rod, or less, according to the size of it; and above all things it is necessary to take care that the winch fits with sufficient tightness. "Experience makes one wise." By disregarding this caution, I once, when snap-fishing, lost a monster of a pike, the winch coming off whilst I was in the very act of winding up to land him.

SPLICED RODS.—With regard to *spliced rods* (I mean those of which all the pieces or joints

are so made, that instead of being fitted together with socket and ferrule, the joints are tied by the owner when required for use, and separated again when laid by, and these are sometimes called "scared"), there is much trouble attending them; yet the advantages are infinite if some little pains-taking, such as I shall here point out, is bestowed, it is only the trouble that keeps them out of fashion. The advantages are, they are lighter by the weight of the brass ferrules; nor is there that stiffness about the joints which ferrules inevitably cause; and they are decidedly stronger, inasmuch as the letting in and on of the brass work tends to weaken the wood. Besides, there is always a sudden resistance in the spring close to the ferrule, which is the part where experience tells us anglers, rods generally break. However, as the only objection to splicing is a very formidable one, I do not like a rod joined *entirely* by this means. On the contrary, let the but and "joints" be made with ferrules and sockets in the usual way, the joints being provided with corresponding hitchers to secure them together by tying, while throwing. But of all things, avoid any except plain ferrules; the Irish socket, peg and groove, or the socket and screw, being very seldom perfectly made to begin with; and never continuing long in order; besides adding much in point of weight. I recommend

the "top" and the thinner joint next it to be spliced together. The trouble of whipping and unwhipping this, need not be often incurred, as the two pieces, when once whipped, can easily be laid on a ledge, or on the floor of a room, during the evenings of a "fishing bout," and need seldom be taken to pieces, excepting for the purpose of travelling. Be particular, however, to have the splices left quite plain, without the least notch or groove in them. I have seen attempts, by means of small brass pegs and holes to receive them, to hold the spliced joint more firmly together when whipped; but you must bear in mind, that the smallest perforation of the wood tends to weaken it, and I have witnessed the breaking of two or three rods exactly at the holes formed by, and corresponding with, the pegs in question. My own rod was made in this style, and it broke in that particular spot. So I removed all the pegs and plugged up the holes with oak, hammered and glued in. I have a secret, which I think worth knowing, appertaining to splices. With very fine well-waxed silk, whip over the two splices separately; it not only strengthens them, but when bound together, they are more tenacious than the bare wood could be, and will not shift with ever so hard a month's throwing. The material with which you *bind*

the splices together should be strong plaited silk trolling-line, well waxed, one end of it should be whipped on to the "joint;" and on the "top joint" should be a *hitcher*, which is a doubled piece of wire, whipped flat, half-way up it, to the rod, to secure the other end when the binding is completed. The binding silk should be long enough to bind the whole splice closely, and a little more. Although the longer the splice is cut, the less liable it is to shift; yet it is less strong than a shorter one, which, by the whipping of silk as I have before recommended, may hold quite as firm. However, when the two splices are bound together, if, on holding the whole of it in the grasp of my hand, and shaking the rod, I feel more play in the splice, and, consequently, more weakness than in the upper portions of the top, I make it a rule to unbind the whole, and insert a split quill well-soaked in water, previous to the operation, under the entire length of the binding, which secures strength and elasticity at the same time, just as it does in a coach whip.

THE ELASTICITY OR DEGREE OF PLIANCY IN A ROD.—Now comes a part of the subject which is most difficult to treat; namely, the degree or quantity of *elasticity* a rod should possess. Observe that whatever is the *quantity*, the *quality* must be uniform and gradual from one end to

the other. If in waving it, one part feels weaker or more stiff than another, at once reject it as bad. Some judgment, which words can scarcely convey, is required to detect this; but if you take in your hand a long green withy stick, and wave that about, you will readily perceive what is the nature of the objection I am endeavouring to point out; though I fear long experience in choosing, alone will enable any one to become a complete judge in such matters. I, myself, from being perpetually, I may say two or three times every year, for some years past, required by friends, to choose for them,—can detect flaws in a rod by the feel which would be invisible to the eye; but this is only to be done by practice, as my words, I fear, must fail to explain it. You will feel that the upper part is too heavy for the lower, and that there is a sensation as though it would break in the middle. In a good rod, on waving it about with moderate force, you will never experience this sensation—but feel satisfied that the lower part is fully strong enough to support every succeeding superior inch.

As to the *quantity of Elasticity*, or its curvature, tastes vary. For myself, I prefer a rod that has the middle degree—being neither too stiff, nor too elastic; and, in choosing such, you can't go far wrong; but you had better have a rod too stiff

(provided it is otherwise well graduated and apportioned), than the other way; as the latter is particularly objectionable in fighting a heavy fish, especially in dangerous water or from off a rooted bank; as it is also during windy weather. Neither is it possible to throw a large and consequently heavy fly with a very pliable rod. And whatever other doctors of fishing may say, I know from experience that it is as easy to cast a fly lightly with a stiff as with a pliant rod. I must leave this entirely to the fly-fisher's choice and judgment; not omitting, however, to mention that Mr. Eaton, of Crooked-lane, tells me, that of late years he finds stiff fly-rods of every description preferred, and from the quantity he sells weekly he is *some* authority upon the subject. Too great a degree of elasticity is now generally looked upon as the fault of Irish rods, and I do not certainly recommend them for that reason. I do not go so far as the authors of the work I have before referred to, who condemn rods, "pliable almost down to the hand," because I consider the term altogether indefinite. Every rod ought to *play*, in fact, "*quite* down to the hand," or else it cannot be well proportioned; but, mark the distinction, it should not, "*seem*" to "bend down to the hand," and then the advice is good.

Mr. Ronalds says, that a rod held horizontally

should droop very little from the straight line. To render this somewhat less indefinite, I subjoin two figures.

Fig. 2.

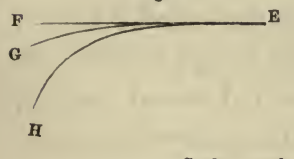
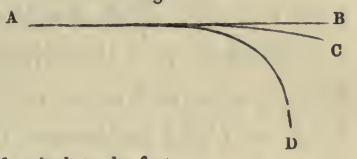


Fig. 1.



Scale 1-10th of an inch to the foot.

A to B (salmon rod)	18 0	E to F (trout rod) ..	14 3½
B to C	1 5	F to G	1 6
B to D	5 10½	F to H	5 4

In Figure 1, AB is supposed to be my eighteen foot four-jointed salmon-rod, straight; when held at the but horizontally, as Mr. Ronalds says, it will, of its own weight assume the line AC, the point C diverging seventeen inches from the straight line, or the height at which A is held. And I find on attaching to the point B a *half pound* weight, it will bring it down, as AD, to D, which is five feet ten inches and a half out of the straight line.

In Figure 2, EF is my fourteen feet three inches and a half three-jointed trout-rod, straight. It droops eighteen inches, as to G, of its own weight; and to H, equal to five feet four inches, by *a quarter of a pound* weight attached at the point, having, therefore, little more than half the elastic strength of the salmon-rod. These two facts may be perhaps some guide as to a

choice in the matter of *quantity* of elasticity. For instance, with half a pound weight, if eighteen feet droops five feet ten inches, what will a sixteen feet rod droop? answer, five feet two inches and a half near. And if with a quarter of a pound, one of fifteen feet three inches droops five feet four inches, what will a twelve feet rod droop? answer, four feet eight inches and three quarters near.

A bent rod describes in geometry more the shape of a quarter of a very elongated ellipsis than any other—the but end almost approaching to a straight line.

THE BALANCE OF A ROD.—Another thing I must not forget to mention, is the *balance of a fly rod*, when put together and placed horizontally on the finger, for instance, as the fulcrum. In a rod that is to be wielded by two hands, the fulcrum, you must remember, should be rather nearer the centre of it, than in one that is single handed. In order to have experience on this part of the subject, I examined my rods already mentioned (trout and salmon), which are, I venture to say, as good in their kinds as can by possibility be made. I put them together, *and affixed the reels.* The salmon-rod being exactly eighteen feet long, I found the centre of balance at three feet five and a half inches from the end of the but. The trout-rod, which is fourteen feet three inches and a half, has its balance

at two feet seven and a half from the same part. By these, as a standard, it will be easy to calculate the proper balance of any fly-rod. Thus, for a salmon-rod, if eighteen feet give three feet five inches and a half, what will *X* (the length of the rod proposed) produce? and for trout, if fourteen feet three inches and a half give two feet seven inches and a half, what will *Z* give you? Do not forget the weight and size of the reel which the use you put your rod to, will require. If you wish to change it for a heavier one, you may still keep the fulcrum in the same place by having the lower part of the but hollowed out; and if for a lighter one, it can be regulated by having it plugged with lead.

HOLMES'S RODS.—There is one kind of rod of rather recent introduction, with the winch fitted *into* the but, which I ought particularly to mention, and of which I believe Holmes, a London tackle-maker, is the inventor. I have not tried them myself, though I have seen and heard of them in the hands of others; yet the objections which the bare sight of them presents, and which prevail in practice, are, first, that the rod is not kept in its proper position while fishing, namely rings downwards; as it naturally is by the weight of the ordinary winch, put on in the usual fashion; and again, if the lower end of the but is ever used as a fulcrum against the body in killing a fish, as

in salmon-fishing it must always be, or if it be applied to a doubled handed rod,—in using which, one hand is kept below, the other above, —the sockets above and below the winch will inevitably become loose and infirm after a little wear. Besides, in packing, if the winch is left on, it is in the way, and inconvenient.

The SALMON ROD should consist of four parts or pieces:—First, the but of solid ash; the second and third, which are called "joints," of hiccory; and the fourth, the top, made as I have already intimated. Each part should be at least four feet six inches; forming, in its whole length, eighteen feet or upwards. Some persons use rods two or three feet longer, which enables them to command a greater breadth of water; though for general fishing I consider eighteen feet quite sufficient, especially as the greater length increases the labour materially. As the separate parts of a rod are those which mostly break, you cannot err if you have, in addition, three or more spare tops, and one extra joint next to the top. For a salmon-rod by all means have the top, and the joint next it, made so as to splice or "scare" together in the fashion I mentioned.

The rings of a salmon-rod should be large, very well soldered, and firmly secured to it, rather decreasing in size upwards. That at the point should be of double stout wire, rather larger in

circumference than the rest. I do not recommend the use of a spear at the but of a salmon-rod; because, being weighty and double handed, the but often resting against the body, the spear may not only be in the way, but even dangerous; while at the same time it is useless, as the upper part is too heavy to be supported by a short spear stuck into the ground, especially in windy weather.

TROUT RODS, must be selected by the rules which I have already laid down. The length, and consequently the weight, may vary from eleven, or twelve, to fourteen, or sixteen feet; some requiring the use of one, and others of two hands. Those of from eleven to thirteen feet long should never exceed three joints, although four joints may be more convenient to carry; otherwise the top joint becomes necessarily so very fine and thin at the ferrule or splice, that it is likely to break if you attempt to throw a long line. Rods of from fourteen or sixteen feet may, however, be in four joints; and if this particular be attended to, I do not think it absolutely necessary, (although safer,) to have the top and thinnest joint spliced or "scared" together. Trout-rods should always be adapted for spears at the but end; and the rings may be much smaller than those on the salmon-rod.

HOOKS.—The last thing, and by no means the least important, is, the hook; of these the angler

should procure all sorts, trout and salmon, large and small, of O'Shaughnessy's, or Sell's Limerick, manufacture. But of whatever make, first test their strength by sticking the points in a soft piece of mahogany and tugging away by the shank; or holding the shank with pincers, pulling the bend by a loop of string. But as in either of these methods you may pull harder than is requisite, and so condemn unfairly, test your hooks by "Siebe's Weighing Machine." If the smallest for grilse will draw down fifteen pounds, and the midge-trout one pound and a half, they will do. They should be tough: if they break too easily, or at these respective weights, they are too brittle; if they bend and lose their shape, they are too soft; so choose the happy medium, if you can hit upon it. About a quarter of a hundred of each size will be about the *quantum suff.*

I have met with nothing for temper equal to O'Shaughnessy's, or Sell's. It is the fashion to praise the former, and I think the latter, perhaps, still better and more uniform in their several sizes and shapes.

Here are drawings:—No. 1, the Common Limerick, and—No. 2, O'Shaughnessy's or Sell's bend, which are alike.

No. 2. No. 1.

In the former, and in most others, the point, in my opinion, lies too close to the shank. Although that is no objection for other fishing, yet for salmon, whose mouths (especially towards the end of the autumn), are very large, and rather open at the sides, and at all times too denuded of tough flesh for the angler's security, there is a better chance of fixing the hook, the greater in moderation the width is between the shank and the point. This width must not be produced by merely bending out the point, for thereby too much stress is thrown upon that part, or the bend itself; but by giving a greater curvature in the shank, especially towards the turn, O'Shaughnessy and Sell have avoided the fault; and the part of their shape between the turn and the point, is nearly parallel with the upper end of the shank, to which the wing feathers are tied. There being nothing angular in any part of the bend, which is otherwise in the common Limerick, the strain comes on the shank a little lower down towards the turn, than immediately opposite the point itself, which part is made thicker and more substantial than the rest of the hook, in order to meet it; while that portion on which you dress the fly (because there is there less strain, and, if broken, it is all held together by the gut which is whipped below) is thinner than in other hooks, and they are consequently no heavier altogether.

In them there are also these advantages;—the point is much more beautifully sharpened than in any hook I have yet met with; in fact, it is perfect, the barb being filed out of the solid, and not cut and raised, as in others; and they are so tough as never to straighten, even with a fifty pounder! In these two respects, O'Shaughnessy's and Sell's hooks have at all events something more than a fancied superiority.

The original O'Shaughnessy is long since gathered to his ancestors; his present representative is Robert O'Shaughnessy, of 18, George-street, Limerick; Sell lives in Quay-lane, Limerick. There are many who think Phillips's hooks, of O'Shaughnessy's shape, equally good, but in this I cannot acquiesce.

I cannot do less than participate in the regret of Sir H. Davy, that more attention is not generally bestowed upon the manufacture of hooks; much of the fisherman's hopes depend on them; and how mortifying is it to lose a good fish from a hook snapping! Who, at the moment of such a misfortune, would not have given twenty shillings for the hook rather than it should have so happened.

Formerly, the old O'Shaughnessy's salmon hooks were sold at sixpence each. But now the nineteen sizes, trout, grilse, and salmon, of Sell's, vary, according to their magnitude, from three

shillings to ninepence per dozen; and the same of the present O'Shaughnessy, from four shillings to one shilling; and I would never object to double the money for good hooks. Never would I use those made out of wire! By the way, I by no means approve of Kirby's hooks for flies—even his Carlisle bend; they are, perhaps, the best for bait fishing, and, indeed, are more sure to hook a fish than any other kind, because that portion of them between the bend and the point does not lie in the same plane with the shank, and they therefore will not draw between two soft surfaces, without the point penetrating one of them. Yet that very form prevents flies dressed on them from swimming so straight as they would do on a hook that lies flat; nor is the shank end tapered, so as to allow of the fly being neatly finished at the head. Taylor says, they are more likely to break the hold than flat-hooks; nor is their temper (for they are of mere blue-steel wire) equal to many others,—still less to O'Shaughnessy's or Sell's.

Perhaps the best hooks for very small trout flies are Adlington and Hutchinson's Kendal Sneck Bend, Nos. 2.1.0. and 00, which latter, for their size, the very smallest, are the strongest of the kind (w re) I ever met with. But, not being tapered at the shank end, I should only use them for hackled flies and for Palmers, the natures of which I shall explain hereafter.

Chapter IV.

THE AUTHOR MERGETH INTO A DRAMATIC READING; AND TRANSPORTING HIMSELF INTO A PLEASANT SPOT, THERE MEETETH HIS FRIEND HERBERT, WHOM HE INSTRUCTETH IN SUNDRY MATTERS.

SCENE.—The Road at Trefriew, between Conway and Llanrwst, North Wales.

Personages.—THEOPHILUS AND HERBERT.

Theoph.—AH! well met! We are at last together. Welcome, most welcome, Herbert, to Wales and all its rich sources of the fisherman's delight.

Herb.—Thanks, my most worthy Piscator! How pleased I am to see you once again: so long e'er I expected the light of your countenance to shine upon me! Were you determined in this meeting to bring back the reminiscence of our colloquy two years since, as we journeyed together through this very country? Be it so; you have succeeded. Here it was, I remember, that for the first time you implanted in my "untutored" mind, the seeds of that taste which neither success nor disappointment in the attempt you promise to assist

THE MILLS AT TREFRIW,

near Llanrwst, North Wales

me in, can now eradicate. This, if I mistake not, is the identical stone on which we rested, and this, the very mountain rivulet by which the poet of old might have refreshed himself, when he said—

> " The wearie traveiler, wandering this way,
> *Here*in doth often quench his thirsty heat !
> And then by it his wearie limbes display,
> Whiles creeping slomber makes him to forget
> His former payne, and wipes away his toilsome sweat."

That " wearie traveiler" is your humble servant, I confess; so, to oblige me, and with the aid of this pure stream

> " To cool the *malt's* intemperate glow,"

let us take a cup of welcome, and drink prosperity to our coming occupation.

Theoph.—Agreed. Success to us both; " and may the east wind never blow when we go a-fishing," as Walton says. But come, no more of you propitiatory libations, or I shall never get you to our " roosting" place.

Herb.—Stay a bit, and let me admire once again this specimen of lovely Wales, where every footstep treads on some fresh burst of beauty,—ever varying, always new ! This—the mills of Trefriew clambering over each other, like thirsty hounds to catch the purest gush of water—is as picturesque a " bit" as can well be imagined. How it lies, lulled in the lap of these wood-crowned hills, from whose feet the Conway's

glistening stream "spirits away"—the pretty laughing rivulet they nourish. Do you mark yon mountain "booming" in the distance up the valley—yet a mere hillock, I suppose, compared with Snowdon or Moel Shabod?

Theoph.—Aye! On either side lie two famous trout lakes; to the right Lyn Crafnant; and to the left, one with as many "*aliases*" as a Newgate prisoner—Tal y Llyn, otherwise Tal y Esyn (after a famous bard, to whose memory a cross has been there erected), or Gerionedd. Now turn we to the fair Conway, our field of budding honour!

Herb.—Well, I declare, there is a large fish leaping in the river at the moment. It is a tempting sight! Could you not catch him?

Theoph.—Oh, that he would afford me the chance? But he will not. 'Twas a fine salmon, and by his brightness not long since from the sea. He rose in very wantonness: and when they do so, however lovely to behold, it is anything but an encouraging sight, whatever "Salmonia*" may say or imply. It is no indication that they are on the feed, or willing to accept the fly; because it is next to certain, that flies on the surface are at no time their food: and I conceive that, though we call our bunches of steel, tinsel, and feathers, "flies," the salmon views

* P. 103.

them in a very different light. Trout, and such like entomological destroyers, rise at flies *as food;* but there are many times when they also throw themselves high out of the water, in mere wantonness; and this may be particularly remarked in the cool of an evening following a very hot day, at which time whipping for them is next to useless. I am at a loss to account for these feats. My conjectures are, that on such days fish have lain, as it were, dormant for some time, and mostly low in the water, to effect which their air bladders have been continuously much compressed by low respiration, and have become comparatively empty; and there is something in their sudden rise to the surface analogous to the elevation of body, and accompanying deep sigh, wherewith we bipeds relieve our lungs after a long, serious, careful thought. Then again, the water, from the heat of the day, has emitted more than its due proportion of air wholesome to fish; and that which they pass through their gills has become unpleasant to them, and they are glad for a moment to imbibe a portion of cooler inspiration, in another element, to supply artificially their natural wants. The water, too, as Captain Williamson, in his "Vade Mecum," says, is at such times of higher temperature than the air; whence the latter becomes to them a refreshing bath. Roach, barbel, carp, and other fish, often

play these pranks: yet, inasmuch as these are "anti-fly-takers," and feed at bottom, no one can suppose *they* seek to feed at such moments. It is a beautiful sight, but by no means an encouraging one, except as saying, "Here we are, come, catch us—if you can!" I like to see trout come to the surface quietly, scarce breaking it, *but* merely "*sucking* in" the floating prey: then is the time! This habit of fish, of which I am speaking, is one of the subjects I have often wished to point out to the attention of some scientific body, from a persuasion that the research might lead to important results in the advance of science;—another subject for their investigation being, why it is that fish will often rise, for a certain half hour only, during the day, in search of flies at the surface, or in search of prey. Although fishermen must frequently have noticed this peculiarity, yet it has never, to my mind, been even *attempted* to be satisfactorily explained. Salmonia treats it lightly, attributing it to a very insufficient cause; namely, a certain fly coming in abundance on the water. But if we compare notes, we shall find that this has little or nothing to do with it. We all know that in different parts of a stream, miles distant, fish often rise freely during the same half hour in the day *only;* and, although the same flies have preceded and followed that half hour in as great abundance,

the fish, *extra* that period, have remained motionless. Often, too, I have been fishing *for trout* in one river, say the Colne, near Uxbridge, and my friends *for chub* in another, say the Lea, perhaps twenty miles off, and the same thing has occurred. Here, then, it is not likely that a similarity of movement among flies could have produced the effect, nor could it have been any accidental state of, or change in the water. And, in the case of salmon, observing often the same habit, I am more particularly impressed; because it is perfectly absurd to suppose they ever take our flies for natural flies (they are surely idiots if they do!), even assuming they take them as food of any kind; yet many a day have I been out on a river pretty thickly studded with rods, and, up to a given hour, it has been, to us all, for miles up or down, in rapids and in deeps, a perfect blank; and then, on a sudden, salmon in all parts of the river have simultaneously taken our flies. I am satisfied it is something in the atmosphere affecting the water which causes this, and only wish that I had sufficient practice in, and time for, meteorological observation, that I might investigate the subject by comparing the temperature and weight of the two different elements together, and noting the state of wind, and cloud, and weather, by thermometer, barometer, and hydrometer, when these things happen. Oh! that I could meet

with some scientific piscatory friend, who would devote his attention to the matter. By the way, the tide leaves its highest mark just above this spot; and our fishing commences here, extending upwards far beyond Llanrwst. The largest fish I ever heard of being *hooked* in this river (for, as the sequel of the story shows, that was all), was about this very place. The glorious yet sad tale was told me by the principal actor, a great ally of mine, who is a most excellent fisherman, and an honest labourer, on whose word I have perfect reliance. As well as I can remember, it was about five years ago, that just round the first point of the land on this side the river, Tom was fishing one afternoon, and his reel getting loose, owing to the dryness of the string by which it was bound to the rod (for he was poor and needy), he dipped it, rod and all, into the water, to increase its tension by moisture; and during the operation, a little below him, up came at his fly a monster of a salmon! A complete leviathan! and to his (not the salmon's) great joy, Tom found his hook fast in him. Away flew the fish, out whirred the line, and off started Tom after them. Both fought with desperation; one for life and liberty, the other for *death* and glory. Long, too, they wrestled. At last, "Sir Salmo" needed breath, and turned to sulking—such sulking as Tom had never before, in all his expe-

rience, met with! The fish lay, not like a mere log, but a rock! and for such a length of time, that Tom really feared the fish was gone, leaving his hook fast in a stump at the bottom of the river, until a slight motion told him "all was right." Again he pulled and tugged with all the force his tackle would bear; and at last, off started old Silver-sides again. Again was the battle renewed, sometimes in water, sometimes high in air; sometimes he took to the profundity; anon he was awakened from his awful slumber, and off he started again; then was he "bitted" under the very tip of the rod; and at last Tom "wore" him round the point, near to yon small boat. The shades of evening were then spreading their hazy mantles over the valley. Eighteen yards of line whizzed out, and were "paid" back. The gaff was brought out and screwed together; fourteen yards more were *wanted*, but were lent grudgingly; another turn or two—and the fish floated on his huge sides as Tom wound him back --wound him back to within a single yard of the gaff! Oh! what an awful moment! The monster gave one languid struggle—and then the line hung loose to the rod; the hook had slipped its hold, owing to the immense pressure; and Tom sank exhausted and spiritless on the ground! Thus terminated a struggle of two hours and forty minutes! and the fish Tom estimated at

about 45lbs. ! his depth (through) appeared about thirteen inches, and his length about four feet*; but he has never seen its like before or since. The worst luck I wish you is a similar chance,—the best, a more successful issue.

Herb.—It does not often happen, I imagine, that fish of such enormous size are taken by the fly.

Theoph.—These monsters are by no means numerous, at all events in Great Britain; the netters take care of that; although in Norway and in the Rhine, they are more common. The largest fish I ever *saw* in London, was about the same size (45lbs.); and that was the admiration of crowds of gazers; there was one of 49lbs. in Leadenhall Market, in the autumn of 1838. Yarrell refers to one of 55lbs. from the Tay, and another of 83lbs. ! ! and some others between 40 and 55lbs. Such sizes are indeed rarities, and to have hold of one once in a fisher's life, is to be in luck. Three or four, upwards of 20lbs. are usually taken by the fly every season in this river; and I think I remember having heard of one about 30lbs. ;—large enough to satisfy any moderate piscator. My notion is, that smaller fish *only* rise more readily at the fly, *because they*

* Since this anecdote was related to me, I have, by calculation upon a general scale, proved that such would be about the weight of the fish here alluded to.

are more numerous! and that in fact a large fish is quite as willing to do so as a smaller one of 10 or 12lbs. There is a marked difference between salmon and trout in this respect; for very large trout will (it might be said) *never* rise at the fly; and middling-sized, *i. e.* of 2 to 4lbs., seldom, in proportion with those of about three-quarters of a pound. As to rod-fishing in Norway, I learn from a source beyond doubt, that a most noted angler from these realms, and two friends, were out three successive days, last year, and during that period took no less, between them, than one hundred and eleven salmon, averaging 12 or 14lbs.; some of 35lbs., and one of 40lbs.; but I do not remember whether all were caught with the fly, or some by spinning. The same eminent "artist" has also taken twenty in a day in that part of the world, and assured me that while playing and killing one fish, ten others might have been hooked—so numerous and ravenous were they. Tom once hooked another fine fish, near this very spot, by a similar chance. His line got round one of the piles, so numerous along the banks here; at the moment he was stooping to clear it with his hands, up came a salmon at his fly, which floated below him; he struck with the line in his hand;—slackened;—seized his rod, and at length fortunately killed him—23lbs. This, as the first resting-place

above the tide, I conceive to be an excellent spot; but it is dangerous ground for tackle, as you will see another day.

Herb.—Your recitals half incline me to unpack and make my first essay upon the instant. But I suppose I must refrain—so let us march.

THE FISHERMAN'S FIRESIDE.

Chapter V.

THEOPHILUS DISCUSSETH MANY WAYS OF COLOURING, AND MAKING LINES; WITH OTHER KNOTTY POINTS.

SCENE.—Llanrwst. TIME.—Evening.

Personages.—THEOPHILUS AND HERBERT.

Theoph.—Now, Herbert, let us draw in our chairs, and think of to-morrow's work. What shall we do? for, as we crossed Llanrwst Bridge, you remarked the low and bright state of the river. In its streams we have very little chance for salmon; though, "should a storm arise and awake the *Deeps*"—if we were favoured by a good stiff breeze, "a southerly wind and a cloudy sky,"—we might meet with success on some of them. I should advise resorting to one of the neighbouring lakes for trout, were it not that there also we require a heavy wind.

Herb.—I am your pupil; do with me as you list. Hill or dale, lake or river, are all alike to me, provided you be with me.

Theoph.—I thank you for the compliment. To initiate you, then, and that you may have a more accurate knowledge of its depths, holes, and shallows, than you can acquire when it becomes high and coloured with its occasional beautiful coffee-brown tinge, I propose, that we make an attempt on the river; and you shall make your *debût* thereon for a noble salmon.

Herb.—I quite agree with you, seeing that I shall thereby also learn before-hand where the stumps, and roots, the Scylla, and Charybdis, of fishermen, lie hidden, and know how to avoid them, "if I have luck" in hooking a fish. But is the particular knowledge of a river more important in salmon than trout fishing?

Theoph.—Certainly; although there is scarce an inch in a trout stream where you may not expect to find sport, more or less; in a salmon river you may traverse many a half-mile, with the dead certainty of not passing by one salmon in all that distance; they are, in fact, only to be found in certain localities, and a novice will waste many an hour in vain, if he knows them not. Besides, in any given favourite spot, of fifty yards, for instance, salmon will shift their position with every alteration in the height of the water, and we must fish for them accordingly. All this I must undertake to teach you when the

river rolls at our feet. But as it is agreed we try to-morrow for salmon, we have plenty to do between this and "roosting" time in the preparation of tackle. By the bye, we must make a gut bottom, casting, or foot-line, as that article is denominated, which we use at the end of the reel-line, and to the other extremity of which the fly is to be attached. Yonder is my fishing case; open it, and in that portfolio you will find every thing labelled in orderly parchment packets. Give out of it the requisites for a salmon casting-line, twelve lengths of treble-twisted gut (which I should tell you, are composed of three strands of trout-gut) of different degrees of stoutness, and three lengths of the thickest and longest single pieces marked "salmon." Put these all in warm water, and leave them to soak awhile, so as to take off its brittleness, and liability to crack or snap in bending or knotting.

Herb.—But wait. Have I given you the right kind? for I see that there are various colours. What advantage can that afford?

Theoph.—Look you: among my collection are various shades, dyed long since, under the advice of works on fishing; light brown and dark, some almost black, some approaching to yellow, some of an olive tint. I never use other than one colour, which I call azure or neutral tint, be the water "clear as crystal," or "brown as a berry;"

and I do so on principle. Our aim, of course, in colouring the gut at all, is to render it less visible to the fish's eye. Of all others, plain gut cannot be said to be the least so, for when soaked it becomes opaque and white. If the water be deep coffee-brown, and you fancy gut similar, use the very lightest tint of brown; for, take a glass tumbler of the water, and holding it up to the light, you will see how little is required! So with all other colours which fancy may lead you to try. But treating the optics of fish as analogous to man's, and considering that the least attractive of notice, is the tint I allude to, I have adopted it for every water, upon the same principle that oculists and opticians prefer the apparently blue-glass in spectacles to the old-fashioned green-goggles. This azure, or neutral shade in spectacles is that which I imitate. If it be the least glaring to the eye, in the air,—so is it when "thro' purest chrystal gleaming;" and is it less visible in water, thickened or coloured? I am well aware that many fishers have great success with plain gut, or with such as is *deeply* stained of other colours; but might they not have greater with the tint I recommend? That we should hide from the fish their danger as much as possible, or I should rather say, conceal that which may distract their attention from the hook (for I cannot believe they feel the same dread of

the line, *per se*, that a culprit does of a rope), is universally admitted; and why we should not follow out that rule in the smallest minutiæ, I am at a loss to understand.

Herb.—But tell me now how do you procure this colour? I've heard something about the capability of common ink to produce it.

Theoph.—It is generally used, and when mixed with one part of cold vinegar and a little water, if the gut be soaked for two hours or less, it will be found a handy process; but as there is much copperas in ink, which has a rotting tendency, I prefer a recipe, the ingredients of which I can trust. Some persons stain their gut by simply rubbing blotting paper steeped in ink over it. I will now put you in possession of my secrets in dyeing gut. But let me start with general directions applicable to all the recipes I give you, *unless otherwise expressed.*

General Directions for Dyeing Gut.

In an earthen pipkin boil about one pint and a half of *cold* water with the dyeing ingredients I shall mention presently. When these have *boiled* about ten minutes, take the pipkin off the fire, and after a minute or so, immerse the gut, tied, if at all, very loosely, and leave it in the still bubbling liquid, so long *only by the watch*, as I direct, and it is dyed enough; for observe, that these

are all *tried* means. On taking the gut from the pipkin, cast it into a basin of clean cold water, and rinse it well; wipe it, and let it dry awhile: then take each length separately, and holding it by the end between the fore-teeth, rub it with Indian-rubber, which not only cleans and straightens it, but also tests its strength, avoiding the necessity of doing so again when about to be called into use. After this, clip off the bad ends and tie all up neatly together, and keep it, *at full length*, in a paper or parchment case, with an inner one of thin paper rubbed with olive-oil, which, in moderation, preserves gut.

Particular Recipes.

The ingredients are as follows; and first in my esteem is,

No. 1.—An Azure or Neutral Tint (similar to ink dye):—

1 Drachm Logwood,
6 Grains Copperas,
Immersed 2½ or 3 minutes.

No. 2.—An Azure Tint, more pink than the last:—

1 Drachm Logwood,
1 Scruple Alum,
Immersed 3 minutes.

Or, five grains alum, added to No. 1, will change it to this colour;—but the less we use copperas the better, and, therefore, No. 2 is best for *this* colour.

No. 3.—A Dingy or Dirty Olive (a very good colour):—

To Ingredients of No. 2, add,
3 Scruples, Quercitron Bark,
Immersed 2 minutes, or perhaps 3 minutes.

No. 4.—A Light Brown:—

1 Drachm Madder,
1 Scruple Alum,
Immersed 5, or perhaps 6 minutes.

No. 6.—A Light Yellow or Amber:—

1½ Scruple Quercitron Bark,
1 Scruple Alum,
6 Grains Madder,
4 Drops Muriate of Tin,
1 Scruple Cream of Tartar,
Immersed 2½ minutes.

As they may serve for want of better, the following may likewise be added;—the faint dirty olive may be obtained by steeping the gut for two hours in two parts of cold vinegar and one of common ink and a little water. About half-a-dozen of green walnut husks, simmered without alum, will produce, and that most firmly, the coffee brown; but you must watch that the colour becomes not too deep, *for you can never extract it;* and turmeric or onion-peelings, with a like small portion of alum, will give the yellow tinge. All these dyes are harmless. I have only to add, that should you give your gut too deep a stain of any colour (and, I repeat, you can hardly give one too lightly), you must have about a pint and a half of clean water in a pipkin, and, when boiling, add

to it about three or four drops of sulphuric acid (no more, or you will destroy the gut), and while boiling, or nearly so, dip the gut in and out of it, say every two minutes, till the colour is sufficiently extracted.

Herb.—I must confess to you that I do not feel satisfied in favour of dyeing at all. Plain glass, which plain gut resembles, being colourless, is always less visible than stained; and so must gut be.

Theoph.—The advocates for plain gut would be quite right, if they could get over the fact that by soaking, it loses its transparency, and becomes white, and thus, of all things, most glaring. Gut, neutrally tinted, may likewise become opaque, but then it is less observable and more soft to the vision. I have paid some attention to dyeing feathers and dubbings, the benefit of which you shall have some other time, for we must "rig out" the casting-line aforesaid.

Now for the silk; 'tis "fine glovers' silk," the best you can use for all purposes of whipping flies, &c. &c. Give me fawn or straw colour. The next best sort is white "wig-makers',"—very fine and strong, but more harsh, and not so easily waxed. I buy all that I use at Pearsall's, in Cheapside, the general resort for fishermen "Amateurs," and "professional" fly or tackle-makers. There is some nicety required in the procuration even of

your *coblers' wax.* Some is too hard and brittle; some too soft. The former must be put into a small pipkin and heated, mixing with it a very small portion of tallow, or pomatum; the relative quantity of which must of course depend on circumstances, and be learnt by the experience of an hour's experiment. If it be too soft, simmer it in a pipkin, adding a little powdered resin, till it becomes sufficiently tenacious. When you have the convenience (and weather of moderate temperature) you may make wax which is perfectly transparent by the following method, borrowed, with a slight variation, from Mr. Shipley's book, p. 127—8.

Recipe for Transparent Wax.

Put two ounces of the best and lightest coloured yellow resin, and one drachm of bees' wax, into a pipkin over a slow fire; when dissolved, simmer them for ten minutes longer; then add two and a half (Mr. S. says only two) drachms of white pomatum, and allow the whole to simmer a quarter of an hour longer, constantly stirring it; pour the liquid into a basin of clean cold water, and it will assume a thick, transparent consistency; while yet warm, knead it by pulling it very much through the fingers till cold; the last operation giving it toughness, and that

silvery opacity which it assumes when properly compounded.

I made some after Mr. S.'s receipt, but found it rather too brittle; I therefore added the extra half drachm of pomatum.

Another recipe for the same is eight ounces of white resin and one table spoonful of linseed-oil. This I have not tried. Both the above are colourless upon the silk, which may sometimes, in fly-making, be an advantage. Another species of wax (and which is peculiarly well adapted to the fine glovers' silk) is prepared by dissolving a lump of the coblers' wax in a sufficient quantity of spirits of wine,* or (perhaps the best, as most evaporating) eau de Cologne: about half an ounce of the spirit to the size of a small walnut of the former. This is kept in a corked bottle, and applied in a honey-like liquid state, soon becoming hard enough from evaporation. I consider it to be the very best mode with very fine silk: enabling you to wax an entire skein of the finest without a break, winding it from one card, in its clean state, on to another as you wax it, and thus having it always ready for use. Never hesitate dirtying your fingers during the operation (a little sweet oil or spirits of wine will clean them), but, holding a drop

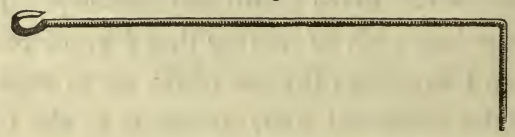
* I used to adopt spirits of turpentine, but have found that from its oily nature it changes the colour of the *silk* bodies of flies.

between the fore-finger and thumb, rub it well into the silk; or you may wear a pair of kid gloves for the purpose. I also afterwards take a morsel of the dry wax, the size of a pea, and rub that over, which gives additional tenacity. It is by far the best plan of waxing that I know of.

Before I show you the use of the bit of stick in waxing, let me direct your attention to the tools so useful for that and very many other purposes. Give me that folded leather case, fitted up by Coleman of the Haymarket, one of which I advise you to purchase when you go to London: as you will perceive, that it contains various implements of immense use to us who have "a finger" in making our tackle. Hand-vices to hold hooks in fly-dressing, or hook-tyeing, more properly called, anti-finger crampers; forceps, for hackling on feathers; needles, for all fishing uses; fine scissors; looping hooks, and table screw to fix them to; files, for re-pointing blunted hooks; and a brush, for ordering feathers on flies; things, the use of which I have often heard people ridicule; but as surely seen them very glad to adopt, after fear of the charge of versatility of mind had passed! I remember showing them to a very excellent fly-dresser in this neighbourhood, one year, but he despised them; he could not even use the scissors—a large pocket knife being his best friend. However, when next I paid him a visit

I laughed to find him using, not only scissors, but hand-vices and all—thoroughly convinced! Pull out that looping-wire, bent at right angles, the remnant of an old baiting-needle.

Fig. 1.



The short leg is fixed in a hole in the table, or a table-screw made on purpose, and I use it in waxing silk, for looping, and many like purposes; which, as it has a natural spring, lessens the chances of breaking silk while waxing. And, for fear of injuring gut while looping it, I have whipped the hooped end over with fine silk. To repair loops and breakages of that sort at the water side, here is another steel looping machine,

Fig. 2.

which, when sitting on the grass, you can, by its sharp-pointed recurved end A, hook on to the knee of your trousers, or the rings of the rod, or the reel, and loop away as pleasantly as in your "sanctum" at home. Now for the operation of waxing with the stick; fix one well-waxed end of the silk by a turn, thus

Fig. 3.

to the hook of the wi e; and, holding the other end with your left hand, rub it over with the wax adhering round the stick, handling it lightly, and twisting or twirling it between your fingers to prevent the silk becoming embedded in the wax, and thereby breaking. Whenever your fingers get sticky, apply a little sweet oil and afterwards wash them clean.

Herb.—I should, methinks, soon become an adept under your instruction. I have seen the operation of waxing performed by others; some have the wax between leather, *the smooth side being inwards;* but a great length of fine silk is sure to break. Others use, between their fingers, a piece of wax for this purpose no larger than a small pea, which is sure to soil their fingers. I vote for your wax dissolved in spirits! But talking of *spirits*, where's the whiskey? My throat partakes of this adhesive subject, as though its essence had gone downwards instead of entering my brain!

Theoph.—Before we can run we must submit to the chains of leading-strings; and before we can write, must scratch pot-hooks and hangers. I would not weary you, did I not think you were willing to add to your pleasure in catching fish, by the art of deceiving them through your own devices and handiwork. Nor would I weary myself, I assure you, if I could refer you to any

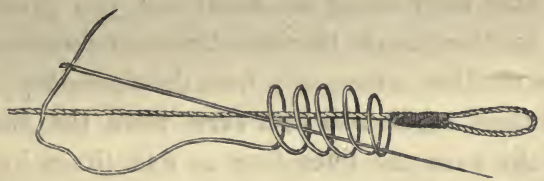
book on angling where you would find these matters fully and sufficiently detailed. But now let me overhaul your tackle. First and foremost I observe that the loop on your reel line is too long, so cut it off, and let us make another. If it is sufficient to squeeze the fly through, head foremost, it will be all you want; and why have the line doubled, which at the loop it is, for a greater length than absolutely necessary? An opening of five-eighths of an inch is quite enough for a salmon-line, and a smaller one for trout-fishing. Also bear this in mind when making gut-lines, or looping the gut of flies; which last, if large enough to admit the former through, requires no more. Loops are in general made ridiculously long. Now to make the loop, observe, that having bent the line into the length of loop you wish it, over the looping hook, I hold the line thus doubled, between the fore-finger and thumb of my left hand, having twisted the loose part of it round my little finger of the same, in order to have a more firm hold. I now, together with the line, hold one end of the waxed silk so that the loose end lies towards the looping-hook, and wind three or four wide turns tightly over the double part of the line, proceeding from my fingers towards the hook, as far as that which I design to be the opening of the loop; then whip the silk back again over that part already laid down, and

the doubled part of the line, binding it close and tight at each turn till I have hidden and covered the whole of the doubled line, excepting, of course, the open loop itself. Hand me that long darning needle, that I may finish off with an invisible knot.

Herb. How is that? Let me see you do it.

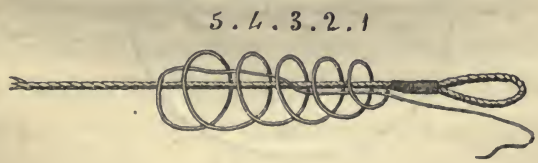
Theoph.—I am now working from the looping-wire towards my fingers, you see; and having whipped below the loose end of the line, I put the needle with its eye towards my fingers alongside it. I then whip the silk downwards towards my hand, over needle and line together, loosely for four or five turns. Now I put the loose end of the silk through the eye of the needle, and draw the needle and silk

Fig. 4.



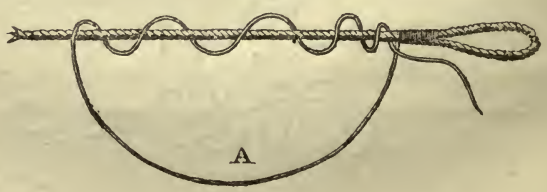
through the turns, point foremost. Now taking away the needle, and laying the loose end of the silk close to the whipping already completed,

Fig. 5.



pointing towards the looping-hook, I draw the loose turn of the silk furthest from my left hand, and nearest to the looping-wire, tight; then the second; then the third, and so on to the last, laying each down close to the whipping completed, and to each other. I then gradually draw tight the end of the silk which is lapped under the turns, holding it the while near my breath to soften the wax, thereby avoiding its sticking and breaking midway under the folds, till all lies close. I cut off the end of the silk; rub the whipping over with my fingers, first dry, and then wet, to give a smoothness; apply a coat of varnish, and all is complete. But another most excellent and more handy plan of making an invisible knot is this; all but the finishing off, or the knot itself being accomplished, you give the silk another turn in the same direction very loosely over the line, a long way from the close whipping, and then, *within this loose turn*, wind the end of the silk over the lines four or five times in the same direction, working up towards the loop, and lay its end down by the close part of the whipping, thus :—

Fig. 6.



then wind the first loose turn, A, over the end of the silk close to the whipping already accomplished, carrying it round and round, till all the inner windings are unwound ; and pull tight the loose end of the silk, (as in the needle plan) to finish with. I would caution you against a bad trick, but too common, that is, *breaking off* the loose silk after completing the knot; by so doing, you are as likely to break it under the *last* fold made as the first, and so to render the whole of your trouble abortive. In preference take the trouble of *cutting* it close off with scissors.

Herb.—You have whipped down only about three-eighths of an inch of the line to form the security of the loop ; is that enough for strength?

Theoph.—Certainly ; the knot or joint which the two loops of your reel and gut-line, when put together make, (see *post*, fig. 9), is of itself a knot, properly so called, and strong without whipping, there being only the slightest possible pull on the ends, nothing is required but to keep them straight. Before I show you how to make foot or casting lines, let me give you a few hints about them.

Herb.—First tell me what is the use of these foot-lines?

Theoph.—Everything. First, the finer your tackle is near to the fly, the less visible is it to the fish.

Herb.—Then why not have the reel-line equally thin?

Theoph.—Because if that be less than of a certain thickness, according to the strength and power of the rod, it would be impossible to throw it well; and, secondly, because it is absolutely necessary that the whole should taper, to a certain degree, like a coach whip. It is not strength alone that requires a *reel-line* to be of the usual substance; because, in reality, a good single salmon gut-line will bear three-fifths of the weight, which is much more than requisite. I estimate that a stout reel-line will bear about twenty-five pounds, and a stout piece of salmon-gut about fifteen pounds. *I say a great deal more than is requisite*—now let me surprise you; what weight do you think a salmon of eighteen or twenty pounds will pull in the water at the end of a line? You'll hardly credit that he pulls less than one pound and a half; except in his rushes, which I have no means of estimating.

Herb.—You astonish me.

Theoph.—I assure you that such is the fact. One of course knows pretty well the force he applies to the rod in holding a fish. Once, after killing such a one as I have mentioned, I tried that force by the "Sportsman's weighing machine," and the result was as I mention. Reflection upon it has taught me a great deal.

It shows how much we owe to the elasticity of the rod, aided by the temperate yielding to all the fish's movements, which, if properly applied, prevents a *dead* pull; and it should satisfy us that we may safely use much finer tackle than is the custom, and methinks it justifies me in pronouncing that which is said in "Salmonia" about triple gut, to be questionable instruction;* *en passant*, let me give you a hint, that, in general, it does not turn so much on what weight the line will bear, as on what the hold which the hook has in the fish's mouth, will retain. If the hold in the mouth of the fish will not bear two or three pounds, there is no use in having tackle above calculated for fifteen or twenty pounds weight.

Herb.—No one will dispute that.

Theoph.—Rather say, few have ever thought about it; but to return to gut-lines,—if it were not for the purpose of casting, for a foot-line, single gut would be always strong enough; triple or twisted, in very thick water, and very rocky situations, may be excuseable, but not elsewhere. For all ordinary occasions, therefore, use as much

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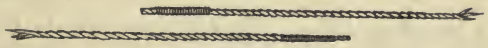
* Salmonia, p. 107, "But I see there is a large fish which has just risen at the tail of the pool." "My fly and tackle are almost too fine for so large a fish, and I will put on my first fly" (i. e. the dropper), "with a *very strong* single gut link, and a stretcher of *triple gut!*" "a powerful fish; he must be between ten and fifteen pounds!" (p. 109.) "I dare say his weight is not less than fourteen pounds."

single gut as you can throw well, and as little triple. Fine throwing very much depends on the exact adaptation of the foot-line to that on the reel, the manner of tapering it, and its length. In this last respect it should never exceed three feet short of your rod, exclusive of the gut to which your fly is tied, because the junction of it with the reel-line will not readily pass the rings of the rod, you may not be able to wind up sufficient to reach your fish for the purpose of gaffing or landing him when unattended. The term "tapering," must sufficiently explain my meaning, for it is impossible to lay down more than a general rule, namely, that it must graduate from the thickness and weight of the reel-line to as fine a point as is consistent with strength. For your eighteen-foot rod you will find about eleven or twelve lengths of twisted gut, and three of single, sufficient; and, if for any of the thinner triple pieces, you can substitute single ones as thick, so much the better. In all it will be about fifteen feet. Trout casting lines need be of none but single gut, and much finer, and in length should bear a similar proportion to the rod. As to making up casting-lines, the mode of joining the lengths of gut together is of the utmost importance. Gut is generally brittle, unless well soaked, and the knots usually made by fishermen are very much to be condemned; nineteen out of

twenty fish that escape by breaking tackle owe their lives to these knots, not by their slipping, but by their *cutting* the gut. It is the joints and ferrules in rods, and knots in lines, which perplex us. Being fond of neatness, I very much rely on the security of my whippings over for strength of my joints, endeavouring to avoid abrupt angles in the bends or knots which I make in gut; but in joining them I draw a distinction between twisted and single gut, and thereby, in the former, avoid the bulk of any ordinary knot, by a plan of my own. My plan, perhaps, may be tedious; but remember the motto, "*Finis coronat opus.*" Having soaked the gut for half an hour, in warm water, or much longer in cold, with very fine silk I first whip over separately each end of the lengths of twisted gut, *beginning* about three-eighths and *finishing* about one-sixteenth of an inch from the end, thus:—

Fig. 7.



which is performed, after fixing the silk, with three or four turns, by holding its end between the little finger and palm of the left hand at right angles with the twisted gut, and holding each end of the latter in either hand, and "twirling" it round by means of the thumbs and fore-fingers. Having done so with two lengths, while they are yet moist, I bend the ends I wish to join, straight

back, about one eighth of an inch from where I *commenced* the whipping, so that the eighth nearest to the end, when thus bent back, lies against the bare gut above the whipping, thus :—

Fig. 8.

I then merely hook the two lengths together, and inserting a stoutish bit of gut, about three eighths of an inch long, to keep the joint stiff, whip down the whole tightly and closely with stronger silk. Here then is no knot, but a bend, which, from being first whipped over with the fine silk, does not close in a sufficiently sharp angle to cause the gut to crack, while the whipping above prevents the short ends from slipping, when the joint is complete and once dry after the previous soaking. As to single gut, I adopt a different plan again, because, being less in substance, the simple bend just described is more likely to crack it. In all my experience I do not remember a break at the junction of the loops of the foot line and gut to which the fly is attached ; and why ? because the bend of the one is round the doubled gut of the other, and an acute angle is avoided ; therefore, for single gut, I adopt precisely that knot, except that the junction of the two loops is altogether permanently whipped over. This is

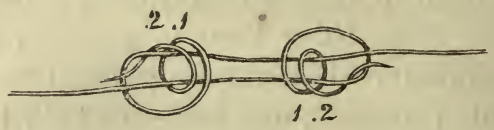
the knot previous to being drawn tight—and let

Fig. 9.

me recommend it before all others for joining the gut to the loop which is usually made at the *head of salmon flies*. Other knots in general use, on an emergency, when whipping cannot be conveniently performed, may be resorted to; but as "the longer way round is often the shorter way home," in the *long run*, you will find those I have described to be at once the least troublesome and the most secure; for, soak gut as much as you will, the knots I am about to mention will break twice out of thrice in the mere trial with the hands, before you can get one to stand; and, as you must again soak the gut after such a mishap, it will take a long time to complete a line, independent of the waste of material it entails. However, to make the best of these knots as soon as they are formed, and before drawing them tight, resoak the gut, and failures will be less frequent; nor should you draw the knots very tight together; and if you whip over the whole *at all*, do so between them, while in the loose state, three or four turns of the silk. There are double and single water knots; the former not absolutely requiring whip-

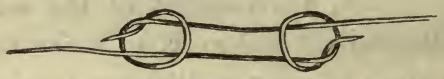
ping: but I by no means recommend the latter for any purpose whatever, and merely mention it that you may not be ignorant of its structure. Taking the two pieces of gut or other material required to be joined, the *double water knot* is thus made—

Fig. 10.



Now pushing the bends, 1 1, respectively, over the others, 2 2, and pulling by the ends each piece of gut tight, the knot of each is complete; and, traversing on the other, you have two knots, which, being pulled close together by the long ends, complete the entire joint. The single water knot is the same, only making one bend instead of two at each knotted end of the gut; thus—

Fig. 11.



Another knot is sometimes used for attaching gut to the loop on a salmon fly head; and occasionally for joining the gut of the fly to the loop of the casting-line, or for attaching the casting-line itself to the reel line loose,—thus—

Fig. 12.

as a homely poet has said,

"Once on a time,—
I'd sing could I rhyme,
How I hooked a fine fish,—twenty pounder;
Alack, for strength I relied,
On a knot I thus tied;
And I lost fish and fly, with one flounder?"

Therefore I never recommend its use for joints of *any* kind, unless "small fry" be the only prey sought for. A tied loop, even, being better.

The last knot I have to, mention is a better substitute for, though not unlike to the knot Fig. 7. That knot being effected on the fly-head-loop, the short end of the gut, instead of being whipped down, is tied in a plain knot round the long end of the gut; thus, when loose:—

Fig. 13.

This, where whipping cannot be performed, is the best for looped fly heads—but once for all, remember, that my knot Fig. 9, is of all others the neatest and safest.

As to flies, for my own use, I have enough to answer my purpose for to-morrow, and plenty to supply your wants, and so I shall not trouble your cranium about them at present. But do not flatter yourself that I will trust you with any I consider worth the value of a "dump," at your first throw. No, no! flick! away goes the fly;—

try another;—flick!—that gone too; another! another!! and another!!! This, every beginner must expect, and even proficients are liable to it occasionally. I shall therefore provide you suitably, and when you can throw without throwing away, you may expect to catch fish.

Herb.—Why is it that flies are thus easily lost? I have often heard mention of it.

Theoph.—Gut when dry is always more or less brittle, and my belief is, that if that to which the fly is attached were well soaked (especially close to the fly's head), for about two hours in cold water, or held in the mouth for ten or fifteen minutes before it is thrown, even the veriest tyro would not be so liable to this common accident. What I always do, before arriving at the water-side, is to hold in my mouth five or six of the different flies I think most likely to suit,—I am speaking of trout-flies—changing them, till I find one which proves "the thing." By this simple "protective," I might almost say I *never* whip off a fly, whatever difficulties adverse winds may impose upon my throwing. I have often thought it would be well, for this purpose, to have a kind of of tin pocket-book, the sides of which should be covered with thick flannel; which being wetted, might keep gut-line and flies sufficiently moistened for use while in the fields; and thus save much time, as well as many fractures. To understand

the reason why a fly is thus snapped off, you must be informed of the summary of the art of throwing; and pray understand that it is the merest outline of what I have to teach you about it. It is this—in preparing to throw forward, you first jerk the line behind, and then cast it forward again. Now, in the throw backwards, unless the point of your rod describes the half of the figure of an elongated ellipsis, or, what is better for a beginner, nearly a semicircle round the head; or unless time is allowed for the fly end to reach behind you to its furthest stretch, when you make the effort to throw the line forward—which you effect by giving a sudden spring to the rod,—it becomes doubled up behind in too acute a bend; and thus, when the head of the fly gets to the point of the bend, from the sudden resistance the stiff hook affords, and the brittle nature of the gut, away the fly goes, having, as you will learn hereafter, acquired a motion, or force, contrary to the course you give to the line at the moment of its being broken off. In the "Angler's Souvenir," is an amusing specimen of a conceited beginner,—a "would-be" self-taught, making his first essay, and in order to avoid breakages of this kind, he is pictured as laying his line straight out on the ground in the contrary direction to that he wished to make his cast, and then with one straight forward over-head

throw of the rod, he brings the fly to the point desired (?) and, as is there observed, a capital plan this is, if you wish to take fish by first "knocking them on the head."

It will help your notion as to whipping off flies to understand the force they acquire in the operation of throwing. It is by no means an uncommon occurrence to break a *rod*, if a fish happen to rise and be hooked while the impetus necessary to raise the fly off the water and cast it behind is in the act of being given, and that required to return it *to* the water is as great. The force a fly acquires in passing through the air is surprising. Strange as it may be thought, I have even seen a rod broken by the fly striking it in a certain position, cutting it, as though with a knife; and I remember once, while salmon-fishing, and wearing a Mackintosh cap, being struck such a blow on the forehead by the fly (in a bad throw backwards), that I felt it tender for three or four days. My fly was only dressed on about a third size grill hook, and yet it struck me, through the cap, like a small stone. If such, then, be the force, and, while it is still going backwards having one impetus, you oppose to that, another still greater, by giving the spring to send it forward, too soon, how can you wonder that so brittle and so thin a thing as gut should snap? I shall, however, tell you more of this hereafter.

Herb.—Very many thanks for driving me into so much reflection; but just wait while I stir the fire and look after a cigar, if you will allow me.

Theoph.—Do so; it will, perhaps, brighten your intellects and nourish the thought I have instilled into you. Moreover although it is not my general *habit*, but "for this occasion only, I will join you in a whiff."

[THEOPHILUS *and* HERBERT *having lighted their cigars sink into silent reveries; and finally disappear in an exhilirating cloud.*

Chapter VI.

THE AUTHOR, AWAKING FROM HIS PLEASANT SLUMBER, INSTITLETH INTO TYRO THE ART OF THROWING THE FLY, AND AFTERWARDS NARRATETH A PLEASANT STORY.

SCENE.—The Preceding. The cloud of smoke gradually dispersing, reveals THEOPHILUS and HERBERT in a gentle slumber.

Theoph. [*awaking*].—My lessons seem to have had a soothing effect, good pupil mine.

Herb.—In good truth I was fulfilling all your precepts in my dreams, with far more excellence than, I fear, I shall ever in reality attain.

Theoph.—Practise, my worthy disciple, practise, and you will, in proportion to your industry, sooner or later be able to answer "*Anche io son pescatore.*" Be not disheartened at the sight of the mountain in your path. Ascend it but half-way, and the prospect over what is passed will recompense all your former vexatious failures.

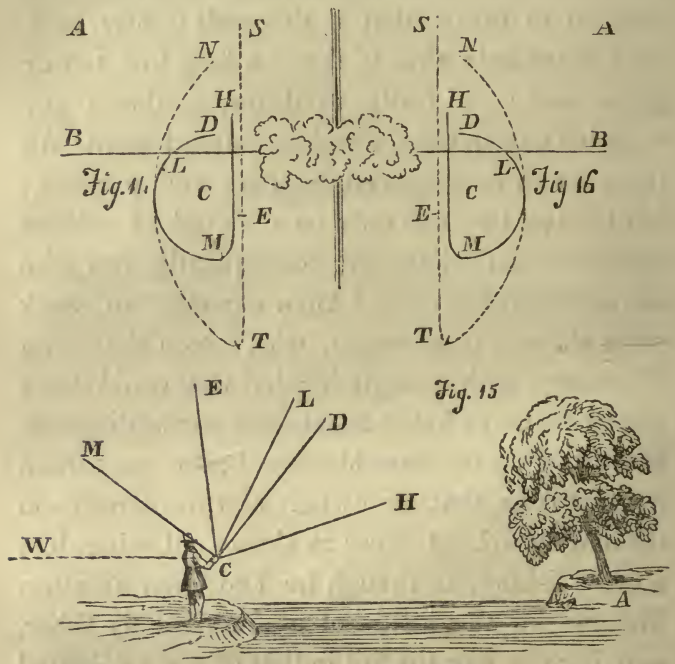
Hope is the *angler's* staff:—walk hence with that,
And manage it against despairing thoughts."

The first difficulty is to throw the line *at all;* the next, so to throw, that it descends lightly, and, fully extended; then to throw a long line to any given spot; and lastly, to throw, in almost any situation among trees, avoiding entanglement. All these are to be acquired by care and practice; but the last two can only be achieved by *extreme* diligence; and there are, consequently, few who can accomplish them. I knew a gentleman, many years since, a poor curate, who, fifteen times out of twenty, with a single handed rod, could throw a trout-fly into a hat at twenty-five yards' distance. In fact, I never saw his equal; for so sure a fisher was he, that the owners of trout streams in the neighbourhood, were as shy of allowing him a day's fishing, as though he had been an otter. The rod, in the hands of a practised fly-fisher, may become like the foil in that of the celebrated Roland; he may do anything with it. But how few are there, who have either the talent or the time, requisite to render them such adepts! And I think I may safely say, that there are hundreds, who, from not knowing the science of fly-fishing, would never improve, if their whole lives were devoted to the practice of that art alone!

But the best way to ascend the hill is to begin!

So give me pencil and paper, and I will describe to you the art of throwing.

Figs. 14, 15, and 16.



There behold three diagrams (figs. 14, 15, and 16). Conceive fig. 14 to be a bird's-eye view of the course the point of the rod takes in throwing, and fig 15, a horizontal view, taken on the right side of the fisherman, showing the angles at which the rod is held at certain stages; fig. 16, we shall come at presently. Now, in both figures, 14 and 16, C represents the angler, B the bank

THE TROUT STREAM.

on which he stands, A, the opposite bank, D, the starting post of the top, or point of the rod, when beginning to raise the fly from the water, and H, the finishing or winning post, where it is brought at rest when the throw is complete. Place yourself, C, immediately facing the spot you wish the fly to fall on, remembering this throughout my instructions. *Imprimis*, observe that it is one of the secrets of good throwing to have a fixed centre on which the rod shall revolve. If you are about to throw with a very light single-handed trout-rod, all the motion should proceed from the bend of *your wrist* ONLY, which is to be the pivot on which the rod turns, as though the rest of your arm were perfectly fixed. Or if you are fishing with a heavier single-handed one, you may move the fore-arm, or joint from the hand to the elbow, and aid the motion by the bend of your wrist, while the elbow must be the pivot; the upper part of your arm, from the elbow to the shoulder, being fixed. If, again, you are using a double-handed rod, the lower end of the but, below the winch, is held facing the right shoulder, by the one (generally the left) hand, which is to be kept stationary, and act as the pivot; while all the motion of the rod is communicated by the other, placed immediately above the winch, so as to give a firm command, and yet not take away at all from the elasticity of

the rod. Now, the motion of the top, or point of your rod is this: Having your right arm half-extended, and your hand elevated to about the level of your shoulder, hold the rod before your right-side, upright, as you behold it, but having the point D, depressed over the bank B, at about the angle W C D, fig. 15. Then by a gentle sweep before you, from your right over to your left side, and thence through the points L and M, fig. 14 (M being at the angle W C M. fig. 15.) behind you, giving to it a light spring—(perhaps "a whisk," or "jerk," would express it better), from the wrist, backwards, when it arrives at L, fig. 14, and decreasing the force of the sweep as it reaches M, and increasing it again till it arrives at about E (the angle W C E., fig. 15), then by a similar spring at L, arising likewise wholly from the wrist, throw the point of the rod straight before you, towards the spot where you wish your fly to fall, but decreasing the force after the spring is made, till it reaches, and becomes at rest at H, fig 14, or makes the angle W C H, fig. 15, or even becomes parallel to the water, in case a greater elevation seems likely to check the fly. This, then, is the circuit the point of the rod takes. You will understand me to intend, while using a double-handed rod, to give the springs with the whole fore-arm of the upper hand.

Now, if you attach a line to the rod, and, placing it straight out before you, (which you must, however, understand is not exactly the scientific way of proceeding when you have once learnt the art), apply the motion I have described, making the sweep only as far as M (fig. 14): the line would fly over your left shoulder in a semi-elliptical course, and the end of it, by reason of the spring given to the rod at L (fig. 14), would fall on a spot behind you, corresponding with the one opposite from whence it started, as in the dotted line N L T (fig. 14). But if, instead of stopping at M (fig 14), a continuous motion is kept up, and the spring from the wrist given to the rod at E, the end of the line will first follow, and then, by reason of the decrease of force, after passing E, and because the end of the line attached to the point of the rod is held back, and the impetus given to the whole is still retained in the loose or fly end, *that* will double over the other part of the line, and fall beyond H (fig 14), in the straight line T E S, making, in its entire course, the circuit N L T E S.

Herb.—But tell me in what position the fly is to be when you commence the motion of your rod; for I should feel little inclination to walk into the water to stretch it out in preparation for the throw. That is like the direction for catching birds by putting salt on their tails.

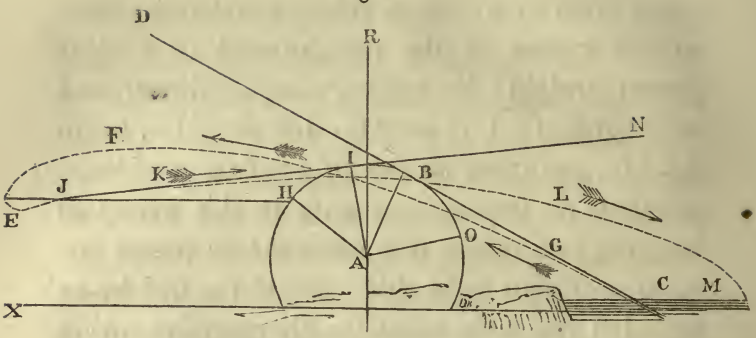
Theoph.—I implied as much when I began the subject, so no quizzing. When you have made one fair throw on to the water, you have no further difficulty, and when you acquire to moderate skill, you may pick up your fly from any spot by the motion of your rod, as well as with your fingers, preparatory to delivering it again on the water. But to begin with the beginning. Hold your fly at the bend lightly between the forefinger and thumb of your left hand, then make a sweep, with the point of your rod backwards, then towards the water: then letting go the hook, proceed to make your cast as I have already directed; and, in making your future casts, always prepare to do so before the rod comes near the perpendicular, or you will not be able to get the line off the water. I should also tell you that it is advisable, as some situations may require it, and especially to relieve your arms by a change, while using a double-handed rod, to reverse this mode of throwing, commencing with the rod facing your left shoulder, bring it round in front towards your right shoulder, and then over it and behind you from right to left, and over your left again, as in this (fig. 16 *ante.*) In this mode a double-handed rod must be held left hand uppermost. Look at the diagrams (figs. 14 and 16), and in a word, the utility of this change becomes obvious. Suppose you

stand close by a tree on your right hand—then, as the course of the line forward (T E S) is almost straight: by making the curvilinear cast backwards, (N L T) over the left shoulder, (as in fig. 14), you incur no risk (*if you have confidence*, which is an important quality in this game) of hanging fast in the tree when the fly passes forward over your right side. So if the tree be on your left you must adopt the change of throwing shown in fig. 16. Attention to this rule will enable you to throw between two bushes, where there would not be sufficient space to do so, if you stood midway between them.

Whatever you do (in the words of Capt. Williamson, who has written with greater perspicuity upon this subject than any author I have met with) "Avoid, above all things, imitating the motion of a whip; for though the art is called 'whipping,' it differs widely from it, in regard to the manner in which it is done. He who throws his line back as a coachman does his whip, will, like him, make it crack when it reaches its full extent behind his back, losing many a good fly, and coming forward again with such violence, as, instead of alluring, will scare the fishes."

To elucidate further the art of throwing the fly, here is a diagram of the course it takes through the air when properly thrown.

Fig. 7.



A is supposed to be the hand, and A O—A B —A I—A H the rod in its various positions, C M the river, C the spot whence the fly is raised preparatory to the throw, and C G F E its course *backwards* from the water, and E J K L M *forwards* towards it, M being the spot whereon it finally alights.

When the proper springs or jerks are given, the hand follows the course of the line, but has no controul so as to impede it after the springs are given. Now let us understand the laws of motion in the fly. Having, in order to neutralize the effect of its *inertia* on the subsequent spring, drawn it by a gentle motion from the intermediate space between M and C, the rod being raised towards B, when the fly is at C and the rod point at B (B C being the length of line to be thrown) we communicate the spring; leaving the fly and line *afterwards* to pursue their own course, and bringing the rod gently through the

arc B I H to H. The fly is thus converted into a simple projectile, and, if it were not for gravitation, would traverse in a straight line from C to D; because, the moment the spring is given at B, the rod is, or rather ought to be, at right angles with the lines C B D. But, in obedience with the laws of every projectile, being unrestrained by the rod or line, it describes the parabola C G F E (E H being the extended line). The force of the backward throw being expended, it falls below E of its own gravity: the motion of the rod being renewed, forwards at H, and, since the rod is raised in passing towards I, the fly also must again rise in following its course, and, when the spring forward is communicated at I, should be found at J, in the parallel E I H, and the rod, I A, at right angles with J I N (I J being the length of the line). Here again, but for gravitation, the fly would proceed towards N; instead of which, it describes the parabola J K L M, falling on the water at M.

Secondly, after the spring at B is given, the force being great enough to send the fly to E, suppose, instead of moving the rod backwards to H, it were retained at B; as the line, from its insufficient length, would stop it at F, while much force is still operating in the fly, it would rebound, and so slacken the line and prevent it falling fully extended. Then, in attempting to

cast it forward, it is equally evident that as the spring could not be re-applied until the rod were lower down in the arc B O, so that the right angle to the rod would fall within A C, the fly also would fall there; that is to say, the reel line would come down first, and its end and the fly would gather "all of a heap" upon it. In like manner, if the rod were not gradually brought forward after the spring at I, the fly would rebound over the water and could not fall lightly; —but of this I shall say a word by and bye.

Thirdly, it would be next to impossible to controul the fly, after the spring is given, *towards the same direction;* for the only consequence of such a power, could it exist, would be the rebounding of the fly. But it is as common a fault as I know of, after giving the spring to the fly towards the water, to counteract the spring by the subsequent *swing* of the rod. A beginner in fly-fishing, if he is fortunate enough to hit upon the proper spring, in ninety-nine times out of a hundred, mars it by the force by which he subsequently throws his rod forward, almost frightening the fish to death under it by the "*swish*" of his top into the water! and there are many who have fished for years, much addicted to this fault; and who, as I shall show you presently, never throw a line properly extended. You will hear their rods cutting the air with a sharp noise, "*with a swish,*" and

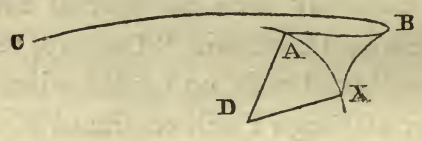
may at once mark them as at least faulty fishermen—men who *thrash* the water, fatiguing themselves most unnecessarily. I have often hinted that it does *not* require any violent exertion to cast a line far and well; and it is the gentle knack by which it is performed—the science superseding the necessity for force—which I am now endeavouring to instil into your mind. Even in salmon-fishing with an eighteen or twenty foot rod, much less force is requisite than is generally supposed. I remember being particularly struck with this observation in practice, many years ago, I think the second season of my attempt against salmon. A few days before I was obliged to give up the delightful occupation, and having previously caught comparatively small fish, I one day, while in the act of throwing, had the misfortune to strain the muscles or ligaments between my shoulders, to so violent a degree, that I could scarcely *move* my arms for several hours, and Prudence would have said, "Pack up, be off, and lay yourself, and rods, up for the winter." But next day, although I still continued in excessive pain, the river and weather were both in such beautiful order, that sending "the wise dame" to "Jericho," I sallied out rod in hand as usual. I found that to throw, as I had heretofore done, with the same degree of force, was physically impossible: but you may guess my astonishment on finding that with the mitigated muscular effort

necessity obliged me to adopt, I could not only throw a lighter line, but also further by two or three yards. A new light burst upon me. The following day, I killed a salmon of eighteen pounds, by excessive light throwing, and the next one of sixteen pounds, by throwing to a spot I had never before been able to reach. This experience, so dearly bought, you may rest assured, I scratched very deep on the tablet of my memory, and I never afterwards lost sight of it.

Herb.—But explain to me the actual effect of this extra force, or "swish," upon the fly.

Theoph.—After the spring is given, for a time, the impulse in the fly is unalterable. The line is operated on in the same manner; but being retained, at one end, by the top of the rod, as each succeeding portion passes it, it is bent or doubled upon itself, thus, C B A (see fig. 18):

Fig. 18.



and if the rod were retained in the position D A, and not *gradually* lowered so as to "ease it off, the impetus left in the part of the line from A to B would be stopped, and that of the fly at C accelerated, to a degree sufficient to carry it further than the length of the line would allow it to reach; the fly itself would then be checked,

and would rebound as I have already shown you. If, on the contrary, the rod were brought suddenly and violently, with the "swish" I allude to, from B to X, the line X B C would receive a contrary impetus, which would finally operate on the fly end, and would bring it "all of a heap," almost under the point of the rod upon the water, and far short of the spot intended.

Again, if no actual spring, nothing except a uniform pull, were given, no superior impetus could be imparted to the fly. The rod would then simply *draw* the line, and the line the fly after it, as great a distance as the length of rod would admit of, only.

Again, I need hardly tell you, that at the moment the spring is felt in the fly, the impetus is greater than during any period of its passage, diminishing as it gets towards its destination, and of course retaining some portion of it till it reaches the full stretch of the line, and becomes at rest. If then, while thus occupied in one course, as towards our back, we, with a sudden spring, give it a different course, forwards, there is a strain on the line, not only increased by having to pull the fly as an inert weight, but equal to the force of the spring forwards, *plus* the dead weight, *plus* the contrary impetus still in the fly passing backwards; thereby incurring a great risk of breaking the gut at E F.

Once more, and lastly. Attend, and we shall see why it is likely to break close to its junction with the fly. At starting, the line being stretched, the point of its junction would take the lead, and so continue till it had finished its course. The fly would pass through the air, head foremost, from its very form and nature; so that when it had passed the centre of power, the line would be doubled or bent back, and the bend would, of course, be close to the fly at the moment the premature spring was felt in it. Then, as the gut is somewhat thicker than that which geometricians call "a line;" having two surfaces, both of which are necessary to its strength, the assistance of the fibres on the concave side would, by the bend, be rendered nugatory, and the whole force of the jerk would be thrown on the convex side, which would also undergo a more than natural tension, from the mere fact of its being bent. Thus are the probabilities of a fracture reduced almost to a certainty; and the fly is whipped off!! But I fear I tire you with so much detail.

Herb.—By no means: I am devoting my best attention, in the hopes of following your explanation. I am all ears.

Theoph.—The nature of the springs and position where they are to be given still remain for your consideration. Of the first, observe that you

must endeavour to impart the requisite force to the *top* of the rod; and that only as though in fact the top were held back, and the rod bent, and then suddenly released. With a single-handled rod it is performed by a twist, as it were, of the wrist, raising suddenly the uppermost part of the fist grasping the rod, when the spring backwards is given; and, with a similar impulse, depressing it in the throw forwards. With a double rod the lower hand being the pivot on which it acts, the upper hand moving with the forearm on the elbow, as the pivot is thrown backwards or forwards about a foot only, the rest of the arm remaining still. You should also aid and increase, if necessary, the spring, by moving the fist inwards or outwards as the throws backwards or forwards are given: *i. e.* letting your clenched fingers approach or recede nearer to, or further from your ear than the wrist joint does. Both in single and double rod throwing that which entitles the motion to the name of a spring or jerk, is a sudden momentary restraint; when in the one the fist is raised or depressed, or in the other when the upper hand is thrown backwards or forwards, for a second after, all motion is checked; and as the whole rod acquires a motion, and the check is felt later in its top than its centre, the former darts forward from its original impetus; just as a man's head would were he in

the act of running and his legs were caught unawares by a noose thrown round them. Do not forget that the check is but momentary ; for the instant after, the rod must gently continue its course in the same direction, else the top of the rod will also rebound, and for that and the other reasons I have already mentioned, the line and fly will be improperly checked. As to the positions of the rod when the springs are given, they will vary according to the length of line engaged. Look again at the diagram I gave you of the fly's course (Fig. 17.), R A is the perpendicular to the level X C M, on which the thrower stands. I have told you that the springs should be made when the rod is at right angles with the fishing-line, as in A B C in the cast backwards, and J I A in that forwards, and that is because the spring, given in that position, has greater influence over the line. If the backward spring were given with the rod, as A O, and the line were stretched from O to M, independent of the attraction of the water on the M end, the direction of the spring would be at right angles with A O, namely towards R, and if the fly ever got there (which it never could because the line O M is so diametrically opposite to O R), the next difficulty would be how to get the line stretched so as to give the fly a sudden impulse necessary for the throw forwards —a difficulty not to be surmounted. The same

laws would necessarily operate more or less if the spring were made in any part of the arc O B, except at B itself, and becoming less and less objectionable as the spot of the spring approached to B. Again, if the spring backwards were made any where between B and H, the nearer it approached H the greater would be the impossibility of even raising the fly from the water, and the possibility of throwing the line back to the water would only be superinduced as the point of spring approached nearer to B. The reason why the forward spring is made nearer the perpendicular than the backward one, is that the fly is then allowed to approach less near to the ground in passing from E to J, and there is consequently less danger of its catching. It is also thrown forward nearer to a parallel with the earth, and then its descent on the water will be so much the lighter than if it were thrown more up towards N, and thence fell to M, or if thrown more in a straight line with M, and so struck the water instead of gradually alighting upon it: while, by making the backward spring further from the perpendicular, the fly is raised higher in the air, and traces a parabola, at the termination of which the fly is caught by the forward spring before it approaches within a "catching" distance of the ground behind. So much for the science of plain throwing, in which

I have included throws far and near, light and heavy, and lines stretched and slack.

Herb.—I never imagined *so much* could be said about it, I assure you.

Theoph.—After all, then, you perceive that this art, when once understood, and after a little practice, is not so very difficult to achieve; you may now laugh at the spectral giants in your path, as a friend of mine did once. One day he went out to bathe in the sea, and being more provident than "Mr. Bubb, of the von hoss chay" celebrity, engaged me to take charge of his garments; we were both ignorant of the coast, or set of the tide; however, being a good swimmer, in he went, though the tide was ebbing fast. I lay reading on the beach, ever and anon casting a furtive glance at the exhibitor. He ventured a long way out methought, but as he appeared vigorous, I imagined nothing wrong and went on reading, and when my volume was finished I was surprised to see what a dance I should have to reach where I then found he must come ashore; for the tide had evidently carried him unwittingly far away. He was, when I got opposite him, "stemming" —almost "steaming" it,—most lustily; and appeared distressed. A fisherman passed me and I enquired as to danger, &c. He assured me there was none; for though near half-a-mile off, it was

not out of his depth,—so gradual was the slope of the sand. Presently, notwithstanding this assurance, my blood curdled in every vein, as I heard my friend's scream and saw his up-lifted hands. But judge my delight—I saw him next moment standing immersed only to his arm-pits,—and all of a sudden heard his loud out-bursting uproarious laugh; and wading along, he soon joined me. "What in the name of wonderment," asked I, "were you laughing at?" "You may well enquire," said he; "little did I know how near my legs were to the bottom at that instant! The tide carried me out before I was aware of it, and I had much to buffet with when I turned—my strength, with my heart, failed, when I saw the work and distance before me, and I was for the last twenty minutes swimming for my life at the top of my power. At last, perfectly exhausted, I really resigned myself to death, for I could swim no further; I made up my mind to die; I 'screamt' my scream and down I went. Not less to my delight than surprise, I then, for the first time, became aware that for the last quarter of an hour I must have been swimming in shoal water, within my depth, and without the least danger. And I could not, after the first burst of thanks to Providence had passed, refrain from the outbreak of laughter you noticed, to think how much time, labour, anxiety, and despair I had expended in

ignorance of my safety." Many a time have we talked over this adventure, and as oft resolved not to *imagine* difficulties; with the immortal Bard exclaiming:

> "Oh, hateful Error, Melancholy's child
> Why dost thou show to the apt thoughts of men
> The things that are not?"

But here comes supper!

Chapter VII.

THE AUTHOR AFTER GIVING HIS RECIPE FOR POTTING FISH, CONTINUETH HIS INSTRUCTIONS IN THE ART OF TROWING.

SCENE.—As before. TIME. *Night.*—THEOPHILUS and HERBERT seated before a smoking dish.

Herb.—I must say, these little "speckled beauties" of yours, are delicious.

Theoph.—Are they not? And well worth the trouble of learning to catch too. Here is enough to whet your appetite in search of them.

Herb.—Never fear: but pray what are they?

Theoph.—They are called par; but what they are has puzzled most of the wise heads that have ever been "a-fishing," and a few more in the shape of pure ichthyologists and naturalists to boot. As I have to teach you how to "first catch your hare," I cannot stop, just now, to give you my opinion; but, for the present, shall merely tell you, in order to excite your observa-

tion and increase your thirst after knowledge, that many persons appear to have taken very great pains to arrive at a true knowledge of their "birth, parentage, and education," while all that has been promulgated amounts to "an opining" *only*, that they are "this" or "that." I am sorry to say the secrets of the deep waters are but little known to us; and therein lies an open field for honours yet unplucked;—for experiment and investigation, laborious, curious, and most interesting:—for wonderment, perplexity, and delight; which, I fear to add, can but the more and more convince us that we are only "lords *in* the creation," and not "*of*" it. When you have learnt to catch a few, we will talk more about them. But come,—taste my potted fish,—the produce of yesterday's catch.

Herb.—Most excellent and palatable. Of what does it consist, and how is it made?

Theoph.—I have the recipe here in my pocket-book, and, as I hardly carry these things in my memory, I will read it to you.

Recipe for Potting Trout, Par, Char, and all kinds of small fish.

Open your fish, and without washing, rub them clean with dry cloths; cut off heads, tails, and fins; lay them in a small baking-dish, having

TROUT.

first seasoned them highly with a portion of the mixture I will mention presently, and bake them in a "cool" oven, with as much fresh butter as, when melted, will cover them; allowing them to remain in the oven till all the bones are dissolved. The time this part of the operation takes depends on the heat of the oven. The butter is then to be drained off, and the fish carefully removed into proper potting-pots, and well pressed down, so as to leave no spaces of air between them. Fresh butter, melted and clarified, is then poured over the top, as we usually see potted meats, shrimps, &c. done; and when cold, it is fit for table. Should the fish be large, say above a quarter or half-pound, it is better to scale them and take out the back bones. The following is the *mixture*, which will suffice for thirty or forty pounds of fish, and if kept corked in a glass bottle, may be used as occasion requires :—

Six	Tea spoonfuls	of ground black	Pepper
Six	ditto	ditto	Allspice
Four	ditto	ditto	Mace
Two	ditto	ditto	Cloves
Two	ditto	ditto	Nutmeg
One	ditto	ditto	Cayenne.

And to every spoonful of this mixture used, add, at the *time of using*, *but not before*, one spoonful of salt. But to resume the subject of my discourse, namely "throwing the fly!"

I shall now canvass some of the doctrines of authors who have professed to teach "the young idea how to fish," which I think questionable, and which appear calculated to mislead, if they be not decidedly erroneous. For instance, Messrs. Shipley and Fitzgibbon, whose work is rather recent, and in some respects not devoid of merit, say,* "The beginner should commence learning to cast the fly, having the wind on his back." This, I must tell you depends on the force of the wind. If it be great, it is then easy enough to cast the fly forward,—but one is never more likely to whip off flies; because its force prevents the line becoming fully extended behind; nor will it alight softly, unless he contrive to let it blow full out, and then, by lowering the point of the rod, allow the fly to fall of its own weight; which requires some experience. To a beginner my advice is, to throw rather across the wind, than directly with it, whereby he is more likely to avoid both these misadventures. Again,† they tell the beginner to practise with his reel-line; but such a course is sure to wear out the loop, by constant whipping, and at the same time teaches nothing—throwing the reel-line alone being very different to having the gut attached, —something akin to learning to swim before ven-

* P. 75. † Id.

turing into the water. I had rather that he should commence with a short reel and gut, or foot-line, and a hook broken off at the bend, if his stock of patience is in a state of insolvency—unable to meet all due demands: whereby he sees at once what he is about, and avoids at the same time the provoking misfortunes which a perfect hook would entail upon him by its adhesive propensities, during his pupilage. It is quite right that he should practise *upon the water,* so as to witness the effct of not throwing lightly; and Mr. Ronalds, in his Fly-Fisher's Entomology, is only correct in recommending practice "ashore," when the object is to achieve throwing among trees, an art quite distinct from throwing on the water; though even this should ultimately be practised (with a broken hook in the first instance), at the river-side. The first named authors,‡ seem, too, to think it an advantage to have the line dry for throwing, and advise that the water should be "whisked out of it and the fly," by quick repetition of casting. If in the sunshine you like to "whisk" your line about for five minutes, you may achieve what they think so desirable; and which, to tell you the truth, I regard as useless. My own practice, and that of many most skilful anglers, is, occasionally to wet

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* Shipley and Fitzgibbon p. 78.

every part of the reel-line beyond the point of the rod, so as to equalize the weight of each part, and thence render it capable of being thrown with greater facility and precision; yet it will drop "light as fairy foot can fall." These are trivial errors I admit, even if they be more than differences of opinion; but when I find authors professing to teach, and laying it down as a rule for beginners, "that the motion in throwing, of the wrist and elbow, *is not oblique, but fairly straight backwards and forwards*,"* I must quarrel with them downright. They had better have left it alone altogether, and have directed the tyro, as some have done, "to manage as he best can,†" than have laid down such thoughtless rules; being about as wide of the mark as Mr. Ronalds, who says, "you should endeavour to impart to the line a good uniform sweep or curve round the head!" Now a uniform curve with the rod will produce a uniform curve in the line, and unless that uniformity be broken by the two springs, backward and forward, into something of an elliptic figure, the fly will fall short‡.

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* Shipley and Fitzgibbon, 77.

† Should the fish (Salmon) on being hooked, spring out of the water, the angler *must be extremely* cool! and manage, *as he best can*, to prevent him from breaking the tackle, or getting rid of the hook!"—*Vide Northern Angler*, p. 65.

‡ See ante, p. 99, last chapter.

As to the motion, "not oblique, but fairly straight backwards and forwards," if it be adopted, the fly will pursue exactly the track of the rod through the air, and should one chance out of a hundred save it from being whipped off behind (for the reason I have already given you),* and the fly be missing in the position it was intended to occupy on the water, you may as well look for it in the firm embraces of the rod itself; and there you will find it perhaps a mutilated corpse! Professor Rennie's advice is capital; he tells us, forsooth, to "observe some good fly-fisher" as the means of learning! as though good fly-fishers grew as thick as blackberries by the side of every river.

Herb.—"First catch your hare," again I suppose.

Theoph.—You are right; and, moreover, if you meet with twenty good fly-fishers, not one out of them perhaps can describe the principles of his actions. Again, we are taught thus†, "just as the line comes about a yard above it" (the spot aimed at), we should "suddenly check the impulse given by the wrist to the rod;" and to this is ascribed the advantage of the fly falling of its own weight, "gossamer-like on the water." As Mr. Shipley is evidently, from his book, a

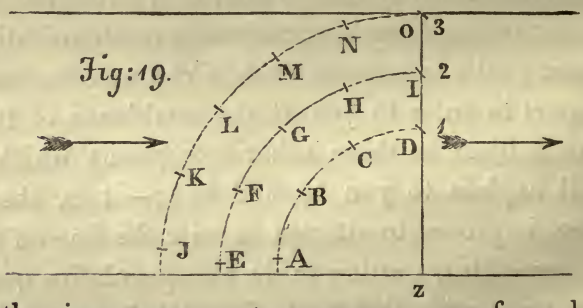
* See ante p. 99. † Shipley and Fitzgibbon, p. 76.

good practical angler, and able to act, though not to teach perfectly, his firm must have failed properly to describe what they intended; for as sure as trout take flies, if the line be checked "*suddenly*" at such a moment, the fly, instead of falling on the water, will *hit* it, and that violently, and like anything rather than a "gossamer"-winged insect. The motion, as I have already told you, must gradually die away, and no "sudden check" be suffered: so that you perceive I am not merely quarrelling with words. "Much ado about nothing," has been made by several writers, in directing you "never to let your reel line be on the water, except in a heavy wind." Now, though I think it well to obey that direction, if convenient and *possible*, which it could only be while fishing with a *very short* line, I am far from considering it necessary, or possible, or proper (were it so), with even twelve yards of line out; and as I give my reasons (which you will do well to remember for more purposes than the refutation of this fallacy), I will be judged by you who is right. In so doing, I must necessarily, in some slight degree, touch upon the art of "throwing" ON a stream; and therefore be prepared for an occasional digression. To dispose of the question of *propriety*, understand that the endeavour to lift your reel line clear of the water (for of course if you have any

length out, it must fall on it in the first instance), you must drag the fly from the place where it first falls *suddenly*, and in a manner unnatural to a living insect, or else the line cannot fall sufficiently stretched. By this you lose an advantage, for it is generally observed that the *fall* first engages the attention of the fish; and it is for the most part in the moment after that he rises to it, unless he be a salmon, which will give chase, in order to whet his appetite. This unnatural drag on the fly is too common, without any endeavour to clear the reel line; for you will remark, unless you cautiously guard against it, in regaining the grasp of the rod after it has become relaxed by the delivery of the fly, an almost imperceptible check is conveyed to the course which the current has already given to it; whereas, from the moment it touches the water it should be under the sole controul of the stream, almost precisely as a natural fly would; the hand at most only carrying it across the stream, as a struggling fly might swim, except in occasionally communicating those gentle tremulous jerks, which we sometimes impart in order to give it the semblance of life, and subject to those other exceptions which I will explain to you by and bye:—it is, therefore, improper to attempt to raise the line off the water. But, putting aside all speculative questions as to the likelihood of a fish being scared by

the line merely passing over it (which I am not willing at once to admit as likely, for why should a line rather than a straw frighten him?) let us, as a third test to this necessity, cursorily consider how to throw on a stream, and whether the mode of doing so does not render it immaterial whether the reel-line be kept clear or not. Understand, that I am now excluding salmon-fishing from my remarks. The river, nearest your position, should be fished before you throw to the more distant parts. Let us suppose that there is plenty of stream, or current, running from left to right. If you throw up against the stream, you then, of course, commence at the lower end of it; and if you cast down with the stream, the contrary. By this means your fly, of necessity, passes over the ground previously to the line. But, to be still more minute, and dealing first with up-stream throws, observe this diagram (Fig. 19). z and o represent the opposite banks; and, standing at

Fig. 19.



z, the river, you are to suppose, runs from left

to right. Now, in order that the fly may traverse every inch before the line, remaining stationary at Z, you will at first throw a short line to A then to B, and so on through the segment of the first circle, remembering always to work your rod towards your left, or towards your right if the river runs the contrary way, and you are still fishing up stream; as it causes the fly to cross the stream and be more shown. Remaining at Z, and lengthening your line, you will throw to E, in the second segment, then to F, and so forth; and, thirdly, you will throw to J, in the third segment, then to K, and finish at O; which I assume as the utmost distance your rod (or your skill) will enable you, or the width of the river require you, to reach. During all these throws you perceive, I have kept you stationary at Z, and as you are perchance growing tired of standing still, you may now proceed upwards, a yard nearer to A, throwing the same length of line as in your last cast, and advancing up the river step by step, throwing first to J, then K, and so on to O, in another segment. To fish down-stream, observe

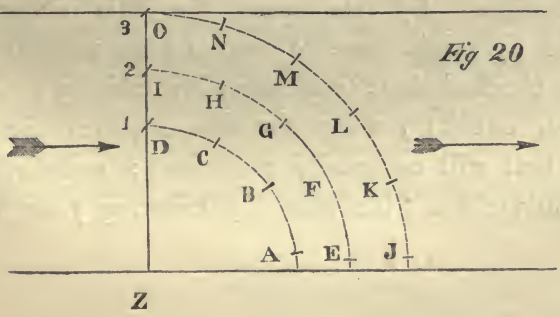


Fig 20

this other diagram (Fig. 20), and you perceive you have precisely the same plan to pursue, still commencing at z, and taking the smallest segment 1, first throwing to A, and ending at o, with segment 3. Pursuing this plan, which speaks for its own correctness, let me ask, what danger is there that the reel-line shall scare the fish, so as to deprive you of sport? None; because your fly has always given it the lead and been before it, the space within the first segment being the only inch of water that will not have been traversed by it in the first instance, and before other parts of the line have shown themselves to the fish. Almost all authors on angling content themselves with telling you, "to let your line fall lightly as possible on the water;" but they evade describing how you are to manage it. Captain Williamson certainly, in this particular, bears out the character for honest endeavours, which I have already ascribed to him. He says, "as you feel the line getting into its proper direction, carry forward your arm with an easy movement, until your hand is on a level with your shoulder. By this means, the little inclination the fly might have to tug, and consequently to be checked short (remember Mr. Shipley's "sudden check!") when the line acquires the full extent will be totally prevented; especially if you yield a trifle more by lowering your hand

and arm a little, keeping them in a straight line up to the shoulder. Thus you will cause your fly to 'light so very gently on the water, as often to leave you in doubt as to the precise spot where it fell; but which is frequently pointed out by the rising of a fish, deceived equally with yourself, by the sleight you have attained." This, though clothed in other language, is exactly what I described, as to letting the motion of the hand and rod die away and discontinue by degrees, after the spring in casting the line forwards: and it is this gradual cessation in the movement, which causes the desired fairy-like lightness.

Herb.—But you have not enlightened me about the *length* of line to be thrown; which, from the mode in which I have heard it spoken of, seems to measure the skill of the fisherman.

Theoph.—It measures the skill in casting the line, but no more; for much is requisite, besides good throwing, to fill a fishing pannier. If a man can throw a long line, he must necessarily be able to throw well, and, most probably, will catch fish; and, to the general observer, he is a good fisherman. It ensures this also, that he must have fished a long time, for practice alone can, in the ordinary run of hands, accomplish it —though many may fish for years without acquiring this advantage.

Herb.—And yet it is very common to hear men

boast of being able to throw thirty yards or more of line.

Theoph.—The next man you hear thus boasting, ask him, did he ever measure it! and you'll surely find him "reckoning without his host." There are some who can do it, certainly; but they are as one in a thousand. I know but *one* man, and that is my ally down here, Tom P.; whom I have before mentioned to you. Exclusive of him (pray do not think I name it for boasting sake, for I know, "self-praise is boasting, and begets the envy of them that hear it")—I yield in this respect to no man, whom I have had the pleasure of meeting any where; by a yard or two I can out-reach them, Tom P. excepted; and although I speak of my long salmon-rod, eighteen feet, I doubt whether I *can* exceed twenty-seven or twenty-eight yards, *measured from the reel*, under the most favourable circumstances. Tom P. *has* thrown twenty-seven measured yards from the top of his rod, which being twenty feet long, according to my plan of reckoning, namely, from the reel, gives thirty-three yards two feet. Twenty-two yard may, therefore, be regarded as a long throw, even for an eighteen foot rod, and all above that, "is extra superfine."

Herb.—But, I recollect that Tom P. has a longer rod; which, I suppose, gives him some advantage.

Theoph.—Certainly:—yet, with the same length of rod, I doubt if I could match him:—assuredly not, with his twenty foot *wand!* It requires more strength than I, or many men, possess to wield it. This brings me back to your enquiry about the length of line to be thrown. According to the length and strength of spring in a rod, there is a certain distance of line, which comes most natural to it, and an excess or decrease is equally troublesome. If you will refer to my former diagram (fig. 17), you may readily perceive how this is, and, I calculate, that about three times the length of the rod, provided it be *stiffish*, is the right measure of line to throw *easily;* thus, twelve feet of rod give twelve yards of line; sixteen feet, sixteen yards; eighteen feet, eighteen yards; twenty feet, twenty yards, and so forth.

A pliant rod will not throw so far as a moderately stiff one (I mean by this, a rod that plays well, yet is stiff about the top); and for this reason, that the grass, hedges, weeds, and stones behind, will either catch the fly, or ruin the thrower in breakage of hooks. Turn again to the diagram (fig. 17). If the rod be pliant, though the spring be given when the rod is as A B, yet, owing to its elasticity, it will not raise the fly from the water, until it (the rod) is much curved (though the tip may remain at B), and

thence, the tip much lowered in point of elevation; consequently, if the line exceed the measure I have assigned to it, the fly, passing considerably below the parabola C G F E, will come in contact with the earth below E, as at X, and catch. If the bank rises behind, even a shorter line is very apt to do this. The stiffer, in moderation, the rod is, the better it lifts the line off the water at the moment of the spring, and the higher is it carried backward above the earth. The longest line may be thrown when the ground is level behind, and the bank is high above the water, or where the bank, being on a level with the water, rises above the ground behind. If the bank be high above the water, say eight or ten feet, then it is almost necessary to increase the length of line, else (again referring to the diagram), the point of spring, the rod being at a right angle with the line at the moment of it, will be much nearer to O, in the arc B O, and, but for gravitation, would incline the fly much higher in the air than D, and nearer R, so as to prejudice the cast forward. A beginner's line should therefore, in my judgment, be in triplicate ratio to his rod, and if he practise with that, he will soonest acquire perfection in longer or shorter throws. If he must needs throw to a spot nearer to his temporary position, he had better shift his ground, and retire for the purpose, as he will then, not

only throw with his natural length of line, but also be more removed from the fish's sight. The secret in throwing a longer line than that which I term the rod's natural capacity, lies in the increase of spring given by the wrist or fore-arm; and as it is merely a spring, it is only practice which can strengthen the muscles of the wrist, or fore-arm, sufficiently to empower them to apply the requisite force, and instantaneously succeeding check upon that force,—the propulsive and retractive exertion—commonly termed "knack," which constitutes it, and prevents the mischief which mere force alone would inevitably tend to, as I think I have already made you comprehend (see fig. 18). Oh! 'tis a glorious thing to strengthen the arms, is salmon-fishing! In salmon-fishing, standing on a gravel bed rising behind, and with a long line, it is a most ruinously provoking thing, every now and then, to discover your fly cut to pieces, or your hook broken. This is done, by its hitting the gravel behind; and I can prescribe no remedy, but a shorter line, or a stiffer rod! The secret also of throwing a short line lies in very much diminishing the force of the spring; *no greater force must be applied than is just sufficient to throw the fly to the spot desired*, else the fly will be checked, and rebound as before described. Before I quit the subject of plain

throwing, I must not forget some allusion to our friend, "Old Boreas, blustering railer!" who in his waking hours so often assists, and more often teazes us. If the wind blows straight down your throat—the stream I mean—from your left to right, and you wish to throw at a right-angle to it, or, in other words, across the river, you must throw according to fig. 14; if the contrary, according to fig. 16; for reasons too obvious, both theoretically, and practically, to require explanation.

Herb.—Is it possible to throw against the wind; that is, "in its teeth?"

Theoph.—Not directly, unless the line be very heavy; but by observing my last direction, you may "sail very close to it." Let me also call your attention to the fact, that to throw nicely, it is of very great importance to fix your eyes well on the spot where you desire the fly to fall. The wonderful connexion between the eye and hand, the servile obedience the latter will show towards the former, are subjects of which I will attempt no explanation. A ball thrown up, finds the hands, though unseen by the eye, ready to receive it; and the gun, held by a good shot, and if suited to the sportsman in length of stock and shape, is pointed directly at the bird, in obedience to the eyes, when they are fixed on the bird

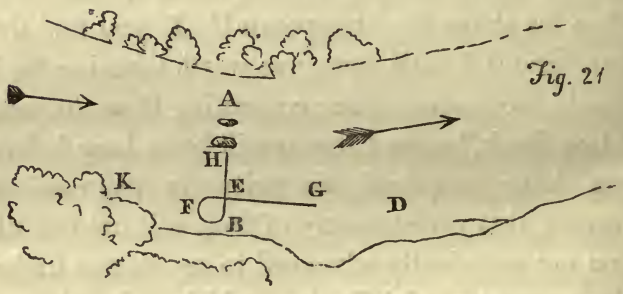
alone. Another instance I might mention, which must have struck the commonest observer who "switches his cane" as he walks. If he, in walking along, direct the point of his stick at an object level with his shoulder, and looks to the stick, he misses it; but if he fixes his eyes on the object, hard, ten to one he hits it. Therefore bear this hint in your mind.

Throwing in very difficult Places as among Trees.

But come, let me carry you in fancy to some cool river, 'midst pendant trees, where willow, alder, sycamore, and oak, seem wrestling with each other for the shade, courting the first embraces of the refreshing stream,—where big trouts revel in treacherous security, and where the fisher's thermometric mercury, hope, rises too often far above the "temperate!" If you find the instructions I shall now give worth listening to, I should recommend your commiting them to your "Log Book," since I fear it will be so long before you have acquired dexterity in plain-sailing throws, that your memory of them will not last till you are sufficiently advanced to try throws under circumstances of difficulty, which only tip-top masters of the art can surmount: I mean in places encompassed by trees and bushes. By-the-bye a man who fishes among wooded banks should

know something about climbing with fearlessness. And it is to those that Coleman's "Angler's Friend," as well as the portable bill-hook, prove "friends in need and indeed." Some very, few there are who could almost throw amidst a thick forest without risk! and if you can, by extreme practice, achieve a victory over difficulties such as I shall now point out, you will gain the advantage of fishing places unwhipped before, or little flogged over, however numerous the body of anglers on the river; and also catch the best fish; for such usually lurk in the most sequested, sheltered spots, trout especially. Now, for instance, first drawing my bird's eye plan, the arrow showing the course of the stream; (and by the way, this

Fig. 21.



is the identical representation of a spot we shall, perhaps, get at to-morrow); suppose you wish to throw to A, while standing on the projecting point

B, which is backed on all sides by high trees: to throw up or down the river, to your left or right, is easy enough; but how will you throw straight before you? You cannot effect it in the ordinary method; because the trees behind will surely entangle your fly. It is done thus: first throw down the river towards D; and, while your line is well stretched, bringing it thence with a spring round in front, towards and then over your left, and behind your back to the right, and at the same time turning your body to face A, throw forwards towards that spot. You must, of course, form but a very close small circle with the point of your rod, as E F B, otherwise the sweep of the line backwards will be too great, and you will get "hung up." The spring of the rod in both instances should be given at about the same point, E; and, provided you can avoid touching the trees at K, with a moderate length of line you will effect your object without doubt. If the stream runs the other way, you have but to reverse the rule. To give you confidence, try this without a hook under a tree in a field, some day; but it requires great command of muscle. Here is another difficulty and perhaps the greatest you can have to encounter. It requires most perfect power over the rod, and consequently the extreme of practice. The bushes are here (Fig. 22) supposed to be thick behind you, and at inter-

Fig. 22.

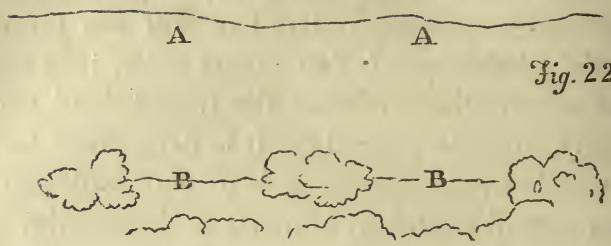


Fig. 22.

vals to overhang the bank: though you cannot throw at all if they project further than half the length of your rod, and though I cannot suggest any plan that would enable you to throw to A, because they do project that much, and because of the trees behind; if, instead of throwing with the rod held perpendicularly, as in the ordinary manner, you can go through the motions I first prescribed, holding your rod horizontally over the river, and directly pointing to the opposite bank, you will be enabled to throw a short line anywhere up or down the stream.

Herb.—But would not the surface of the water prevent the circle of the point of the rod you described?

Theoph.—I must not forget to mention that long before you ought to attempt these difficulties, you will be able to avoid whipping off flies, though instead of a semi-circle and straight line, you form an entire but much elongated ellipsis with the point of your rod; and thus it is, you are

enabled to throw, as I have just related, with so limited a space between it and the surface of the water.

Throwing under Trees, and how to Disentangle the Tackle.

Occasions will also frequently require a throw under branches hanging within two yards, or even one, of the water,

> "Would you lure
> From his dark haunt beneath the tangled roots
> Of pendant trees, the monarch of the brook."

This, well performed, is an admirable sight, and often excites the praise of less practised fishers. Yet it is after all not so very difficult, with a little bold practice; nor when the first dread of entanglement is conquered. To this latter end, I have often pointed out to you the necessity of being accompanied, at the river's side, by Colman's "angler's friend," to disengage the fly from trees on the angler's side—while the common folding brass clearing ring, and a long strong hempen line, come into use on the opposite bank. But should entanglement take place, in eight times out of ten, neither is required—nothing but O'Connell's delight, agitation! agitation! In other words, when this mishap happens to myself, the first thing I do is to lay down my rod, and taking hold of the line, gently to tug and shake it, till (if success attends me) the fly drops off.

If this fail, I use one or other of my instruments. Remember you should never attempt to disengage the fly by "striking" with the rod. Having digressed thus far and "hung you up," I had better give you all the advice I can to release your line from the tree, and yourself from the subject. It frequently happens that in raising the fly and line off the waters, or casting towards them, some spiteful detestable gale carries the one into the lower and the other into the upper part of a large bush; so that a double entanglement takes place. "Agitation" becomes impossible, and cutting away the branch where the hook attaches alone, comparatively useless, from the difficulty of releasing the other parts of the line. Here, either by the "angler's friend," or by the pocket hatchet, you must first cut the branch where the hook is; and if the fly continue still attached thereto, then get hold of the branch somehow or other, either by the "angler's friend," by your gaff hook, or by cutting another,—a hooked sticked. If the fly detaches itself from its first lodgment and floats afar off in the air, before you proceed to anything else, cut a long stick, leaving a few twigs about its upper end; with this reach the fly, and, twisting it about, entangle the fly in the stick, so as to be able to draw the fly towards you, meanwhile leaving the line sufficiently loose from the end of the rod for

the purpose. Having once hold of the fly, take it off the loop of the line, and you may then quietly draw the line by the rod from out the bush. Should you have, in trout fishing, many flies on, I pity you; for your hopes of escape are few indeed, except by the sharp edge of the hatchet; though even then the foregoing hints may assist you. As to entanglement on the opposite side of the river;—in throwing under bushes, provided the throw be proper, that is, with much skill and no unnecessary force, even should it touch the bush, it is ten to one but that it will shake or fall from it again without catching; whereas, if the fly be cast with violence, so that, except for the bush, it would "hit" the water, it will, the moment the line touches the branch, double itself upon it, and there to a certainty remain, and the clearing ring is the only remedy. But to return to the subject we were upon, viz. throwing under bushes, should you be standing at the water's level throwing a long line, and the bush be a yard or more above the water, the fly will seldom touch, even in the ordinary mode of throwing: but if you stand on a high bank, fishing short, and the bushes close, you must adopt another course. I must first explain to you that if the branch, under which you desire to throw, lie to the left, you must then throw on the principle of fig. 14 (ante), and if it lie on your right,

you must reverse your throw as in fig. 16 (*id*). Whichever way it be, the backward motion of the rod is the same as in common throwing, and instead of causing the point to describe the straight line M E H (fig. 14 and 16), in its progress forwards, it must be depressed outwards almost horizontally; and as the line unfolds itself towards the spot aimed at, it must be watched well, and if it seem likely to catch the branches, the rod, by being gently drawn back about a foot still nearer the surface of the water, will probably guide the fly to its destination, and at all events avoid the danger. I may tell you, that, provided you have plenty of clear space behind, you may reach under bushes by throwing horizontally, as though you wanted to "touch up" the off foreleg of the off leader in the four-in-hand; and it is then the best plan, especially where the bush lies on your own side of the stream and at your left. I observe that Col Hawker recommends the use of the left hand when the wind blows very strong directly across from the right; but I do not conceive it to be of the least advantage, because, by throwing backwards over the right and forwards over the left shoulder, as in fig. 16 (ante) the same effect is produced, as I have just told you. However, it would be no inconvenience to practise with the left hand, if it were merely as a temporary relief to the right. And it is abso-

lutely essential, when you attempt some of the difficult throws I have just mentioned; thus, for instance, if you require the horizontal throw between bushes (as in fig. 22), to be made from left to right, your right hand being inapt at throwing backwards, or back-handed, your left must be called into service. So, if you desire to throw under bushes which lie at the right on the same side as that on which you are fishing, you may be sometimes better able to effect the object by using the left in lieu of the right hand; and especially when the throw under the bush is to be horizontally performed. There is a hint which may be serviceable to you upon this branch of the art, not to be omitted. It is of a plan very troublesome, it must be admitted, as it entails the necessity of "gathering up" your fly at every throw: yet if you do not mind that, you may find it of universal use in difficult wooded stations, provided a short line will content you, and your rod be capable of being wielded by one hand. The plan is, preparatory to each throw, to hold the hook between the forefinger and thumb of the left hand; then, by waving the rod about backwards or forwards, from right to left, or however will best suit the object (a thing I leave to your practice and discretion), to get the line well on the swing, and the moment you feel you can thereby communicate a sufficient

impetus to the fly, release it from your fingers, and cast forwards to the spot intended. Very much, with industry, is to be achieved by this manœuvre. Understanding, then, these principles, practice and industry in the art, must do the remainder. I can say no more upon this subject, save that you should never forget to calculate upon the effect the wind may have, in trying these experiments among trees, and if it be adverse, the attempt had better be abandoned. I shall conclude my observations on throwing the fly among trees, with the advice, always to be bold, bearing in mind, that

"Preferment seldom graceth bashfulness."

But "the lights of the chamber burn low."

"The silent hours steal on,
And flaky darkness breaks within the East."

As we must be up with the lark—and as I have troubled you already enough with this dry subject, —and have still too much to teach, to crowd it into this night's colloquy; let us now say good night, and go to dream of the morrow's hopes and fears,

"Pack night, peep day; good day, of night now borrow,
Short night, to-night; and length thyself to-morrow."

Remember SIX.

Chapter VIII.

THE AUTHOR, TAKING TYRO TO HIS FIRST ESSAY, DETAILETH TO HIM, BY THE WAY, HIS RECIPE FOR PRESERVING TROLLING LINES. AND OTHERWISE ENTERTAINETH HIM.

SCENE.—At first, the Path leading to the River.—Afterwards—The Rector's Pool, Llanrwst. TIME.—Early Morning.

Personages.—THEOPHILUS and HERBERT.

Theoph.—I AM furnished for the fight.

Herb.—And so am I.—Rod together—reel on—line through rings, and gut-line affixed—Impatiently I wait for you.

Theoph.—Let me examine your "artillery," as Frank says. All right:—I see you have practised splicing your top and joint together according to my directions. Bravo, closely, and neatly done! but you must tie your other joints together by the hitchers, else one part may chance to reach the sea before the other! Here are pieces of silk braid, as fine as netting silk, which I keep

for the purpose. Make a knot at one end of each, and catch it under one hitcher on each joint; if you wind these round the joints when you come home at night, they will last you through the season. As I can hardly admit it to be a matter of little moment, let me tell you I am glad to find you happen to have put the reel on the right way; namely, with the handle towards the right, when the reel lies under the rod. I allude to it because I observe that the two joint authors of Derbyshire, have differed upon the subject, and, like those who quarrelled about the chameleon, it happens,

"They both are right, tho' both are wrong;"

the one, because the winding up should be performed with the right hand; while in his plan it must be performed with the left: and the other because his, of holding the rod keeping reel uppermost, is an unnatural position for it; the line is more chaffed, and also has, in case of wet, an inclination to cling: or else he would imply that, to wind up, it is requisite to turn the rod so as to bring the reel upwards, which is not the manner in which it is retained while throwing. What have you done with your spare tops.

Herb.—One is in-doors, the other in the hollow but.

Theoph.—Leave both at home; you are not

going very far; and let us hope for no breakages to start with. Besides, carrying it in the but not only spoils it, but gives an unpleasant rattle, and feeling of "all-not-rightishness" to the rod in throwing.

Herb.—First let me look at your line;—prepared, I see;—the very thing I wished to ask you about. What is the process?

Theoph.—This, you will note, is properly a trolling-line of the best description; eight-strand platted silk, of its natural yellow colour. I have promised to try it for a friend, as a salmon fly-line, but having done so, cannot approve of it so highly for that purpose, as of the unprepared silk and hair twisted; it throws rather too heavy. The preparation of it is certainly most excellent—the best I know, not excepting that which the tackle-makers adopt, who, by the bye, I believe, charge but a penny a-yard for preparing them.

Recipe for Preserving and Stiffening Trolling Lines.

To a quarter of a pint of "double-boiled cold-drawn" linseed oil, add about one ounce of gold size. Gently warm and mix them well, being first careful to have the line quite dry. While the mixture is warm, soak it therein till it is fully saturated to its very centre, say for twenty-four hours. Then pass it through a piece of

flannel, pressing it sufficiently to take off the superficial coat, which enables that which is in the interior to dry well, and in time to get stiff. The line must then be hung up in the air, wind, or sun, out of the reach of moisture, for about a fortnight, till pretty well dry. It must then be re-dipped, to give an outer coat, for which less soaking is necessary: after this, wipe it again but lightly; wind it on a chair-back or towel-horse before a hot fire, and there let it remain for two or three hours, which will cause the mixture on it to "flow" (as japanners term it), and give an even gloss over the whole. It must then be left to dry as before; the length of time, as it depends on the weather and place, observation must determine upon. By this means it becomes impervious to wet, and sufficiently stiff never to clog or entangle,—the oil producing the former quality, and the gold size (which is insoluble in water), the latter; while the commixture prevents the size becoming too hard and stiff. A trolling-line should be thus dressed every season at least.

Herb.—How exhilirating is this scene, so varied, so ever-varying with each hour. Big Galtyvoel, which, as I came here yesterday, blushed with the roseate gaze of the declining western sun, now seems wrapt in shady sleep; while on our right, the towering wood-crowned

THE RECTOR'S POOL, LLANWRST.

Gwydyr cliff, then looking awfully majestic in its gloom, is smiling and gay as a blushing bride.

Theoph.—We shall fish at its base for at least a mile up the river. The vapours of night still hang like gauzy veils about it. "Bright shines the sun," just now, of a truth; yet there'll be rain before long to a certainty. Look to those towering mountainous clouds to windward, and that thin black horizontal streak across them, threatening a storm,—rain to a certainty!

"Hurrah for the sou'-west wind
To the angler it ne'er comes unkind,
Though it pours and it blows,
Still on fishing he goes,
Hurrah! for the sou'-west wind!"

Already the morning begins to assume

"The uncertain glory of an April day,
Which now shows all the beauty of the sun,
And by and bye a cloud takes all away."

Leap the gate on the right into the field, and before us is the Rector's Pool. Here let us take breath and admire the picturesque rectory, backed by the town, and the far-famed Llanrwst Bridge, built by Inigo Jones. 'Tis said, by the way, to be his masterpiece! and, strange as it may seem, a stout thrust of the body against one side of the parapet, causes the whole structure so to shake, that its vibration is readily felt by a person leaning against the opposite parapet; hence it is sometimes denominated the "shaking bridge."

Herb.—And is its contiguity to the rector's house the only reason for the name you assign to this pool; or are we indebted to the rector for permission to fish here without danger of the lock-up?

Theoph.—Your first bolt was nearer the mark; and I know no other reason for its name, save, that it is as bountiful and generous, in fit and proper seasons, as the worthy rector himself. We are free to fish it, the property around belonging to my Lord Willoughby d'Eresby. It is a good pool for fish, when there is plenty of wind "the blue wave to curl;" and this you may bear in mind, with respect to all pools, that you may spare yourself the labour of throwing on them, unless there be a good ripple, or else a good fresh water.

Herb.—Let me understand your definition of a pool.

Theoph.—I make this distinction of waters in reference to salmon-fishing. A pool is a long, deep, and broad part of the waters, with very little rapidity of motion,—*comparatively* still: a stream is moderately swift, yet deep; a rapid is still more swift or rushing, and sometimes not above five or six feet deep; and a shallow may speak for itself, since it is of no use to us as salmon-fishers. The breeze is with us this morning; so I shall just try here before I do anything with you, as you would only frighten the fish on

your first essay. So lay your gut-line in the water to soak meanwhile. It is this little brook on our left, and the rector's garden-wall on the right, which constitute the boundaries of the pool. There is capital fishing below, from the garden; but leave that for the worthy rector's private use, for the present. It is ground strictly private, and not to be entered upon but by express leave or invitation. Besides, I owe him especial courtesy in this respect, for having run away with a goodly fish which he might almost have reckoned his own. 'Twas a memorable event, happening in the year ——, the day before I packed off to London, at the close of my season. I had been out just above here, to the Quay Stream, "to cast a long and lingering look behind," or rather "to cast a long and lingering line before." There I rose and struck a glorious fellow; but it was *with a broken hook!* and all I saw of my supposed last fish of that year, was thirty-six inches length of bright solid flesh arching a leap of some six yards diameter as, in his joy, he escaped me. In despair I wound up my reel-line, and deposited gut and fly in my pocket, as I thought for the season. In my way home I called on my worthy friend the rector, to say "good-bye," and a good-bye it proved, for, after much persuasion, he induced me to throw down yon pool from his garden-wall, where he had raised a fish twice the

day before. I thought it was of no use, for the wind was lulled, the sun was bright, and the leaves were thick in the river as autumnal gales could make them. The river, however, was high and full. Still he pressed; and, at last out came gut-line. Again, the salmon's knell, my whizzing-reel, gladdened my ears, and straight fell my aerial fly upon the pool: once, twice, I threw in vain; but

> "Though twice in vain,
> Thrice *did* gain."

A heavy swell was seen—my rod flew back—my line was stretched! yes, I had a monstrous salmon! at least a monster here. Having hooked him under such disadvantages, with so much luck, and so unexpectedly, I determined to lose nothing which good fortune had given me, and to maintain my advantage, if cool skill and patience could avail me. To describe his manœuvres, his rushings, tuggings, sulkings, shakes, and leaps; my slackings, stonings, lowerings, easings, with all my final deadly strain, would occupy us the time the battle lasted, full forty-five minutes; so let them pass. As you perceive, the height of the wall and the tree at the end of it would neither permit me to reach him with the gaff, nor pass my line and rod and self down to the watering-place below. So seeing my friend Llewellyn crossing the bridge for his evening's cast, I hailed

him to my assistance. He came and stood in the watering-place below; and I above. He, deceived in his low position as to the weight and size of the fish, kept teazing me, "Press him in, sir; press him; he's not above eight or nine pounds; you'll never land him;" and I retorting, "I see the fish, I hold the rod;" and 'twas well I did, he confessed. 'Twas Llanrwst fair, and folks were in plenty about the town, and a hundred or more were now witnessing the sport, many for the first time in their lives. At last, after trying his patience and exercising my own, round to Llewellyn I brought my fish. True to its work went the tempered insidious gaff, and out on shore, for the first time since its birth, shone the silvery scales of the glorious prize; out came the weighing-machine; down went the pointer to eighteen pounds! "Eh! what a *saumon!*—hurrah!" sang the crowd. "Thanks," thought I; and off I marched in triumph at having caught so goodly a fish, and at having gratified so many in the act.

Chapter IX.

THE AUTHOR CONTINUETH HIS INSTRUCTIONS BY THE RIVER SIDE—THE HEARING OF FISHES—THE AUTHOR THROWETH HIS LINE AND CATCHETH A SALMON—ANTIQUARIUS COMMUNICATETH TO THE AUTHOR THE NATURAL HISTORY OF THE PARR—THE AUTHOR DISCOURSETH ON SALMON-FISHING, AND THE HABITS OF THE SALMON—HOOKETH A FISH, AND LOSETH HIM.

SCENE.—The Rector's Pool Llanrwst;—as before.

Theoph.—THAT you may not lose the slightest hint which circumstances afford, I should mention that a fish certainly does look much less in water, than out, when viewed in an oblique direction. While fishing on a level of the water, I have, on two or three occasions, supposed fish of 13lbs. to 15lbs. not to weigh more than 6lbs. to 7lbs.; and I can thus easily account for Llewellyn's being so easily deceived. At the same time I advise you, when recounting losses of fish, rather to under than over-rate their proportions! The honour of our craft demands this! For there are indeed too many who view with horror the outcoming of that tale-teller, the Weighing Machine! At the same time, bear in mind that if I had lost

that fish, it would have been only "8 or 9lbs," though catching him added 10lbs. to his weight!! Therefore don't be illiberal to your fellow sportsman. Now hide yourself from the water behind these alders,* while I fish it. I imagine you need hardly be told, that the less the angler himself, even, is visible, the greater his chance: and what is of almost equal importance, the less noise or movement, especially heavy treading, we make about the ground, the more are the odds against us reduced.

Herb.--What, then, do you think that fishes have ears?

Theoph.—My own observation assuredly leads me to conclude that they have, to a certain extent, the sense of hearing, or something equivalent to it; although some anatomists class them almost at "Zero," in the scale of animal perfection in that respect. I was lately induced to ask the opinion of my late esteemed friend, Sir Anthony Carlisle, on this subject, and I will now give you his observations in his own words, which, coming from so eminent an anatomist, must be most valuable.

Hearing of Fishes.

"The organs of hearing in fishes," said he,

* These bushes have been much cut since this dialogue occurred, and the fishing in this pool has been rendered easier, and the taking fish more precarious in consequence, until time shall have restored them to their pristine grandeur!

"have been known to anatomists for more than two hundred years. They are especially constructed for receiving sounds in water, and for repeating those limited vibrations which pass through water; while the organs of hearing in animals, which live in air, are adapted to that medium; and those of amphibious creatures, are fitted for both elements. Insects appear to feel the vibratory motions termed sounds, with the instruments called antennæ or horns. Sounds are only modifications of vibratory motions, but these are liable to unlimited variations, as exemplified by music.

"The organs of hearing are in all creatures ordained to afford them information respecting the movements of distant objects, but those perceptions (as well as the sense of seeing) are withheld from stationary beings, such as trees, because the evidences of hearing and seeing are only serviceable to moving or roving creatures.

"The mechanical structure of the organs of hearing in fishes is more simple than in aerial animals. The sounds which especially affect the welfare of fishes, are those which occur in their own element, such as the rushings or concussions of waters, the attrition of stones or sand, or the movement of aquatic creatures, whether their natural enemies, or their prey. For these essential purposes, the ears of fishes are repeaters of

aquatic vibrations, and a peculiar enamel-like detached bone is placed in the middle of the nervous expansion of their hearing organ, and appointed to repeat those rattling noises which prove equal warnings in the dark, as when it is daylight. These auditory bones are readily found in the middle cavity of a cod's or whiting's skull: they are tooth-like in texture, with a pearly whiteness, and so brittle as to break on attempting to bend them. The construction of these ossicles is perfectly adapted for their intended uses, viz. that of responding to the vibrations of similar substances.

"It is a vulgar error to suppose that sounds are necessarily dependant on air, since they are known to be better conducted through the medium of metallic bodies, or even water: and the human ears may be rendered aquatic instruments by plunging the head under water in a warm bath, when any conversation, or the airs from musical instruments, may be heard distinctly, although the outward ears had been filled with water, and the nostrils closed for the occasion.

"ANTHONY CARLISLE."

In the preface to Julius Wolff's Treatise on the use of auscultation and percussion, &c. &c., Sir Anthony has also in the following language further instructed us. "This beautiful adaptation of

the exact portion of sonorous intelligence bestowed on fishes by the construction of their organs of hearing, is, amongst endless other examples, a proof of the exact but yet sufficient providence or protection afforded to inhabitants of the waters. There is an especial sac of calcareous pulp given to skates and some other cartilaginous fishes, in the place of dense ossicle;—apparently intended to respond to the movements of sand and muddy strata, on which they are doomed to exist. And it is remarkable that the sturgeon has its auditory ossicle, consisting partly of hard substances, and partly of calcareous pulp. In the whale tribe, aerial thunder issues from their lungs, and the booming of their voices is well adapted to convey intelligence of distances to each other, when parted by ice-islands; while their organs of hearing, adapted by filling the tympanum with water, become hydrophonic organs, and tell the distant collision of stones, of rocks, and icebergs."

Herb.—If fishes hear—if these philosophical investigations of so eminent an anatomist are to be regarded, what becomes of Mr. Ronalds' experiment?

Theoph.—In a work called "The Catalogue, &c. of the Royal College of Surgeons, vol. 3, pt. 1, p. 135, et seq. (which also contains Sir A. C.'s ideas, together with drawings of several kinds of these ossicles), is to be found a paper

upon the same subject by John Hunter, in which, after saying, "as it is evident that fishes possess the organ of hearing, it becomes unnecessary to make or relate any experiment made with living fishes which only tends to prove the fact," he mentions the same experiment as that of Mr. Ronalds, tried by himself with an equal degree of caution in all the minutiæ, and the result was quite the reverse. The fish were *much* frightened by the report of his gun! Ronalds' trout might have heard, though it remained stationary, and although I may remark that in the one case the fish was in running water, and probably not near the bed of the river, and in the other in a still pond and near the mud, I will not further attempt to reconcile the conflicting parties, or say whose opinion is entitled to more respect! leaving *you* to judge for yourself.

Herb.—But do you think the mere human voice in conversation can reach fishes?

Theoph.—'Tis very hard to say, and a very difficult subject for experiment; for if a fish moves he may have seen, and if he stays he may still have heard. I have often seen a huge stone thrown at, almost on, a fish, without his noticing it, and witnessed other occasions on which a pin's head would startle him. It has been implied by anatomists that their hearing is limited to a few tones, and that they have no interest in aerial affairs

beyond visible impression, and thence, because fishes are destitute of voice, they could not hear the human voice. However the conclusion may be at all events I dispute the "because" from which it is deduced. For many have the power, frequently exercised, of uttering oral sound, call it voice, or by any other name. Carp and other fish we often hear "chewing the cud," as it were, on a fine evening. Lobsters and crabs, when immersed alive in boiling water, utter shrill and piercing cries; and the gurnet expires in the boat amidst most melancholy and plaintive groans. Remember also that the human voice is only heard by us by means of the vibrations it causes in the air. But there is this curious anomaly brought against the doctrine of fishes hearing, that Thames anglers in a punt are more boisterous and noisy while enjoying good sport, than while they sit dispirited and quiet through bad. This, however, only proves that the fish are not *frightened or deterred from eating*, not that they are "hard of hearing." I am convinced by my own observation, of one thing, namely, that fish can hear, or feel, almost every footstep which falls near them; and, therefore, I would have fishermen tread as lightly as possible about the banks of a river; and, above all things, never jump, where they expect to find fish. One opportunity, among fifty others, of making obser-

vations inducing this caution, I may as well mention to you. One fine day passing by a noted hole in this river, called "the well," or "steep bank pool," where the bank is precipitous, and then had an altitude of about eleven feet above the surface of the river, while the water in the hole might be about the same depth, I laid myself flat down on my stomach at right angles with the stream, my eyes only being extended over the edge of the bank, in order to watch the salmon. There were in the hole six or eight, varying from eight to twenty pounds. They floated and swam quietly about, sometimes far out, and sometimes close under the bank where I lay. After a while, when any came near it, and in order to see the effect it would produce, I kicked with the toe of my heavy shoe upon the ground; and simultaneously those fish suddenly darted off, evidently alarmed or disturbed. After a while they would return, and I repeated the experiment with a similar result, three or four times. Now, this can hardly be supposed to have arisen from a sense of hearing, in the ordinary acceptation of the words, little or no sound being emitted by a blow of such a nature upon a soft clayey soil as it was. It was concussion, or vibration, and nothing else, beyond doubt: and therefore, when beside a river, my advice is, *glide* along as quietly as possible; and also, that you may the less attract

their visual observation, let all the motions of your body, as much as possible be of the same "ghostly" order.*

Herb.—Your own experiment, backed as it is by the authorities you mention, convinces me upon this subject. Henceforth, depend on it, I will be quiet as a cat watching a mouse. But tell me: I suppose you esteem the salmon a shy fish. Is it more so than the trout?

Theoph.—Why, really, I cannot say; there is no great difference between them and other large fish, in that particular. A pike is a bold fish if he happen not to see you; but let the shadow of your little finger fall within his angle of vision, which is much more extensive than ours, and he's off like a shot. So, if a salmon happens to catch a glimpse of you, he lies like a stone in the deepest hole. If, therefore, any one be with you as companion, or assistant, while fly-fishing, bid him take it as no offence, if you desire him to keep out of sight: for unthinking persons are too apt to conclude that because they cannot see the fish, there is no danger of the fish seeing them. But it is a truism in optics, long since well-known and very prettily exemplified by Mr. Ronalds, in

* See further on the hearing of fishes, "Nollet on the Hearing of Fishes." Mem. Fr. Acad. vol. 1 (1743), p. 199. "Anderson on the same subject," ib. (1748) p. 149. "Hunter on the same," Phil. Tran. (1782) p. 39.

the "Fly-Fisher's Entomology," that by the refraction of the rays of light passing through the water, a fish lying under a bank, which intervenes and almost prevents you seeing the surface even of the water immediately over him, can perceive you most distinctly. This is too well known to require me to explain "the why and wherefore;" so if you are afraid of exposing your ignorance by asking me more concerning it, look at Mr. Ronalds' work, and there you will learn all you need; or else, any popular work on optics, will tell you.

Herb.—Now, my friend, let one of us begin fishing; for I long to see a salmon ashore.

Theoph.—Patience, patience! Don't you see the "sun shines high and bright." It would be most imprudent to make even one cast just now: especially as there are clouds coming up, which will, every now and then, screen his rays. As a general rule, no "surface fish" will rise at a fly during sunshine. Some suppose (and perhaps very properly) that this is because they see the angler, or his rod and line, too plainly, or are, by the superior light, able to detect that the bait offered is merely artificial. But I am not quite satisfied that this is the true or sole reason, though scarcely quite prepared to offer a better; since these phenomena are still occupying my deepest attention. The rays of the sun, or the absence

of them, seem to be more sensibly felt passing through water than air; and I am thinking, the inclination to motion in fishes, is immediately affected by their presence. Every fly-fisher has remarked how very rarely, by comparison, trout rise, either in sport or at flies, while the sun shines bright and scorching: and it is said to have been observed by good swimmers, that if their companion merely move the shadow of a hat over their bodies, while they are under water during the feat of diving, so as to intercept the sun's rays, a most sudden and sensible chill on their bodies ensues. The heat of the sun's rays I believe to be inimical to fishes' activity, and this will at once account for their predilection for shadowed banks and screening stones during bright sunshine. I recollect taking, many years back, one or two dozen fine roach and dace, on a hot bright day, by thrusting a flat-ended landing-net between the much-worn boarding which maintained the banks of the Thames near Kingston. I first observed them to be regularly packed, side by side, like horses at a fair, their heads in the shade, and tails protruding into light. How fond perch are of getting under barges, and trout, under the boarding of weirs or mill-tails, evidently avoiding the light and heat. We had best, therefore, only fish while

" Haply o'er the shaded sun
Passes a cloud ;"

and avail ourselves of sunshine for gossip and instruction, or for eating our "snack," or repairing damages.

Herb.—Well, then, here is a fine shady sycamore, where the ground seems tolerably dry; let us sit down till the cloud comes; and, tell me, is it with salmon as with trout, that they take up a certain station in the river, and there remain during the season as in their castle?

Theoph.—Most assuredly not. A trout, as you observe, always affects a given haunt. During summer he will lie by a particular weed or stone, and is always to be found there; or, during winter, he lies in a particular hole: and if driven away, is almost sure to return after a while: you may as well try to induce a minister to vacate office, as attempt to rout *him* out. In February, 1839, I was trolling with a large gudgeon and gorge-hook for pike, in the waters of an excellent friend of mine, near Uxbridge, and having a "run," gave full fifteen minutes' law for digestion; then I struck; and, after a vigorous tussle, found I had a goodly trout, of about four or five pounds. It being out of season, I determined to release him: which, as he had not gorged the hook, I could safely do. The keeper carried him downstream to below a considerable fall, (about a

quarter of a mile distant from the spot I took him at), and turned him in it, having been first conspicuously marked by a cut in his back fin. About three weeks after, another Philistine came across him; and this identical fish was caught by a gentleman trolling with a similar bait, and in the very same hole where I had before hooked him! That fish was fore-doomed to die of gluttony,—of *over-gorging!* One would have imagined that the place whereto it was carried, would have proved more congenial; for there there was a good depth and flow of water, and plenty of weed and shallow; and it seemed the very place for a trout to covet: but he preferred his old haunt, and died in maintaining his position!

Herb.—How is it, then, with salmon—are they promiscuous rovers?

Theoph.—Not exactly. It is assumed that they come up rivers merely for the purpose of spawning; but as they do not spawn till the months of November and December, it is as yet inexplicable why they came up so early as months previous,—in the spring for instance: for, as I shall take occasion to show you another time, they are supposed not to leave a river they have once fairly entered, until after the operation of spawning is over; that is, in the early part of the following year.

Herb.—I think you hinted yesterday, that sal-

mon did not feed in rivers; if so, can it be possible they remain in such a state of abstinence for so many months?

Theoph.—We must consider that some other time; else we shall digress too far from the subject we were upon. I was saying, they come up from the sea for the purpose of spawning; and the early comers seem to act upon the old maxim, that "the early bird secures the corn;" for they take plenty of time to look about for the best unoccupied spawning-ground. They come up from the sea during a flood or fresh; and if they determine to advance beyond the tide-way, * they rest themselves in the first still pool they meet with above it. Below this, it is supposed, they never return during the season; but lie there till another flood. They will then advance to a pool higher up the river (perhaps no higher than that immediately above it), while fresh fish from the sea will mount guard in their stead in the first hole. Thus they advance by degrees with every flood, till they get as high as the nature of the river will permit. But those fish which come up to spawn late, will content themselves with spawning ground nearer to the tide-way. This s their supposed general habit, liable to exceptions of course. However, while the river remains low, they

* As to this habit see post.

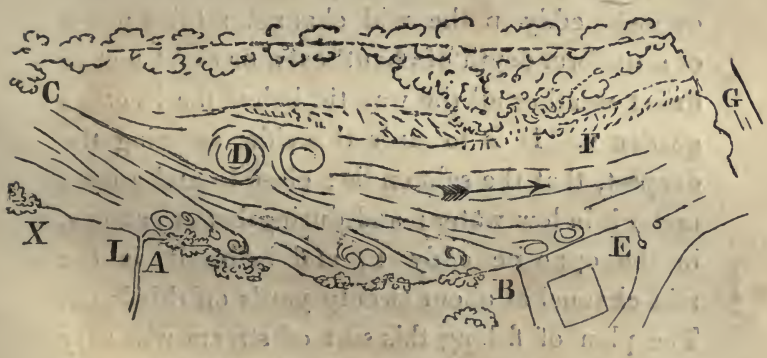
do not move from the immediate neighbourhood of the pool the last flood has left them in, either by night or day. And thus they are stationary to that, and only that, extent; for the moment a fresh of water comes down from the mountains, we find them leaving the pool for the shallows above, and can trace their journeys upwards. Therefore before the river thickens, and as soon as it begins to clear after a flood, the best places to fish for them, are the fords and shallows above these deep pools. It is singular, however, that whenever you once hook a salmon, at a given spot, you may almost with certainty expect to find another supplying his place when he is dead or gone! So that there must be something in each spot they choose peculiarly adapted to them. Speaking, however, of the salmon not descending a river they have once entered, and looking at it in a very limited sense, there is one most important thing always at every throw, to be borne in mind; namely, that no fish seems to relish going down-stream, in pursuit of prey; a salmon, especially, will seldom if ever rise at the fly, if it be allowed to be carried too straight down-stream, and it requires the greatest attention so to manage the rod as to cause the fly to swim obliquely, or almost at a right angle across the river; and, perhaps, there is nothing in salmon-fishing which demands greater care and thought, and more close

Painted by R. Cooper R.R.

THE POOL.

attention to what one is about, than this little matter, namely, the guidance of the fly. Success in trout-fishing very much depends upon it, and still more in salmon-fishing. But look at that cloud; it will surely "darken the sun!" So, promising to teach you more upon that subject at another fitting opportunity, let me, while the cloud is coming, explain this pool to you, and the mode of fishing it, and then get to work, or I shall not see a fish before breakfast. I may as well inform you, that, in like manner, I intend to describe every good spot on this river, not so much with the view of teaching you how to fish the Conway in particular, as that you may grapple with other rivers, elsewhere, in which you find the like characteristics. Here

Fig. 23.



we stand on the convex bend of the river, which, as you see, flows from left to right. Our

chances on this pool lie from this rivulet A down to the Rector's garden wall B, about one hundred and fifty yards. The stream sets in to this side A B all the way,—in fact, to the bridge G, causing a considerable depth under us, and an increasing shallowness till it leaves much shingle dry on the other side C F when the river is low. But about forty or fifty yards down, near the opposite side, there is a gentle eddy D, and, consequently, deeper water. In high water it eddies much also all the way down under this bank, causing many deep holes of ten or twelve feet in its lowest state, especially about half-way down the field, and about thirty yards above the garden wall, which spots are indicated by the indentations in the bank. Opposite this rivulet A it is rather shallow: in fact, it is the head of the pool; but below the opposite eddy D the mid channel retains much of a uniform depth of about seven or eight feet in driest weather all the way till below the Rector's garden E. It is towards this side, as being the deepest, that the salmon lie; close to and almost under it in low water; and during better seasons, in the opposite eddy D, and below it, in the mid channel at about twenty yards off this bank. The plan of fishing this sort of stream will vary very much, according to the height of water. Opposite to this rivulet is an excellent spot, when

the water is rising and before it thickens, and for a short time after it becomes clear again, while still high, for the reason that the salmon which had been resting below, are then making an advance towards quitting the pool altogether for a higher station in the river. In such a state I should commence throwing from the field above X L, as high up as the bushes will allow, straight across the stream, with about eighteen yards of line, and should play the fly continually towards my left side:—why, I will explain hereafter. After repeating this once or twice (as indeed every throw should be), I should cast with another yard or two, in a direction slanting more down-stream; working the fly first towards the right, till it came to within four or five yards of this bank, and then, by gently carrying the point of my rod back again before me, over to the left, give the fly a curve in the water, and draw it up-stream in eight or ten strokes. Thus I should fish the whole stream, taking the nearest range at the first time of going over it. Then I should give out another yard or so, recommencing where I started, and work down the stream in the same fashion as I have last described, till my fly falls near the head of the opposite eddy D. The line must then be lengthened to the utmost, and thrown at about an angle of forty-five degrees, letting the fly continue at its work till it

reaches this side. In this fashion I should continue all the way down to the wall B. The general place for them to rise, is near this bank, as the fly is making its curve; for although they sometimes lie far off, they will generally, unless very eager, follow and seize it at that moment. I shall have but one or two pools to show you on this river, where there is less rapidity of motion; and you will content yourself for the present, in noting that the most vigorous and lively play of the fly which I shall permit you to adopt (all which I must explain to you fully another time), must be resorted to on this kind of water. In low water, though the same direction of throwing is required, yet, as the fish do not lie so far out, sixteen or eighteen yards of line is the utmost you need cast for them, unless you can command much more, and throw at a more acute angle with the bank; which, as it keeps you further from their sight, and also places your fly in a better position on the water, will give you a greater chance in proportion. Neither is it now requisite to trouble the water much opposite this rivulet A, as it is too shallow for fish to lie in: and during low water, the most likely spots are about the two holes I mentioned, as half-way down, and towards the lower end of the field. They are also taken during a high water close under the Rector's wall, for that again is the head

of deep water under the wall, and shallower than below. On the other side, which only affords chance for salmon when the river is full, and is generally best for morts, unless a very long line can be thrown, the first thing is to look well about you for the trees behind !! You may, in full season, that is, during a fresh, fish it from as high up as the trees will allow you C, where the water is of a tolerable depth, down to opposite the extremity of the garden E, and you must throw all the time as long a line as you can command, or wade so as to reach near this, the then opposite, bank. The line must slope also, the more the better, in proportion to your skill in throwing a long one, so as to near the bank. But, except in the eddy D, and close up at the top C, it were useless to bring the fly near to your own side, as the water must always be too shallow; if it approaches at any time (except as I have mentioned) to within fifteen yards, that is quite near enough. Opposite the Rector's garden wall is a most excellent part of the pool; but it is by far best fished from off the wall itself—for it is requisite from the opposite side F, to throw a line so long, that the trees which hang close to the water, are sure to trouble you, unless you can wade; as to the safety of which I am not quite certain, as I have never yet awhile "charted" the depths and holes. I may

as well tell you, that in low water, all along the opposite side is a capital place for trout and par, even to the very centre arch of the bridge, and the upper end is rather preferred for morts than salmon. During small freshes I have taken and hooked several fish from the opposite side, out of the lower hole towards the lower end of the field, but then the wind was favourable, so as to allow one of my "extra superfine throws," almost reaching across the river. How fortunate, the cloud is up, just in time: good bye for a while to bright Phœbus. Now for a throw. It goes well out; for I kept the gut bottom in my mouth on our way here, and it has since lain in the water, and is now well soaked. Note that in your log. No luck—they are asleep, I fear. I must "try back."

Herb.—Try again; do not give in, or you will teach me to despair.

Theoph.—I do not intend; for I think that at my last cast I saw the motion of a fish. Be patient; for I must stay a few minutes before I show him my fly again. They very seldom rise directly over the spot they lie in, but follow the fly, awhile, first. After a few minutes, they mostly return, and take up their old quarters and are ready for a second attempt. Now,—look out, —I have him! Stand still and let me pass you to the sand-bank A, where I must "conquer or die." Watch his course, and should I call, take

a clod or two of earth to throw between him and the bank ; anything to drive him away ;* for all along there are bad roots and stumps, especially about fifteen yards from where I stand. Soho! He has shown himself—not above eight or nine pounds ; yet he plays well. How he cuts about! Now up the river! You see he must, and will go for the present! There's twenty yards of line run out "at a dash!" but I'll bring him round again.

Herb.—Heavens! what a terrific plunge! I thought he must have gone then altogether. He seemed determined to break all, or pull you in. I had no notion what a salmon could do. He seems to tug like an elephant, so steady and determined. Bravo! this is beginning well, and I am all alive again. I have the gaff all ready: shall I come down to you?

Theoph.—Mind you, he is not mine yet—"first catch your hare." There's plenty of game in him, for these five minutes,—as I never strain a fish except he approaches a dangerous ground. Now for a leap!

Herb.—Up he goes! all's safe. How beautifully exact to his motion you seemed to yield the rod's point, and eased your line.

Theoph.—As my pupil, take example. Come

* As to fighting, and turning heavy fish, in a more scientific fashion see post.

along, my beauty! my reel works well, thank goodness; for now I am down here I am forced to remain stationary, and cannot be dancing attendance on you in all your "tacks and stays." He goes down again and grows weak! So, come hither and see fair play; for I have him "well in hand," and he is too much exhausted to fight his way into the bushes. Yet see! he makes to the bank, as they always will at their last moments. Now then—look sharp—"down with the dust" —heave in a clod; but be sure it falls between him and the bank, else it will startle him the wrong way, and frighten him under the stumps, to a certainty. What another leap? That was a danger well got over. A leap at such a moment, when I was "butting* him furiously!" Another turn or two and he's ——

Herb.—Shall I stick the gaff into him?

Theoph.—To be professional, say "gaff him." No, this shelving sand-bank will save you that pleasure—and I will show you a dangerous trick. Now he is—MINE. Hurrah!

Herb.—What a splendid fish! but how you tremble. Well done!

Theoph.—Tremble! Do you fight a salmon, even of this size, and you will find yourself "another." Talk of excitement, catching a

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* As to "butting" a fish, see post.

salmon is the ακμή of it! During its operation, one's nerves, aye and muscles too, are continually upon the greatest stretch; and only imagine this state kept up for an hour or more, which is sometimes the case with large fish. Nay, I have even known three hours and a-half spent upon a twenty pound fish, by a first-rate fisherman. As it is, this has kept me at work, not less than twelve or fifteen minutes. He is tolerably bright for the low state of the river. But let me carry him on to the grass; and do you stun him to death with the but end of the gaff over the head, while I hold him, and then measure his length and girth.

Herb.—From the tip of his nose to the centre of his tail, twenty-nine inches and a half; girth, fourteen inches.

Theoph.—It would have been better at twenty-eight and a half length, and fifteen girth. Now, out with the weighing-machine—eight pounds and a half standard weight, as I said.

Herb.—Tell me how did you manage to lay hold of him so cleverly? Why not have gaffed him at once?

Theoph.—In such a position as that in which I stood, where one can get close to him, if you have coolness sufficient, and have fairly killed the fish, you may quietly grasp him with the right hand just above the spread of his tail, and you have him as firm as though he were already in a

pickle-tub. Try it. But I do not think this can be done with all fish, as their shapes are different. Nor can you well manage a salmon smaller than five or six pounds in such a way. Gaffing discolours the flesh when dressed, and destroys the beauty of a fish before-hand, into the bargain, and may thus be avoided if you intend the dead prize to travel far. At the same time, gaffing is by far the more certain and safer plan; for, at least, the other mode is a dangerous experiment, and I have known many good fish lost in the attempt. But, my good pupil, how you stand staring and gloating over the fallen victim! Will you never have done?

Herb.—I was thinking how bravely he fought for his life. Tell me, is any other fish so strong?

Theoph.—The only two that in the least degree approach to it are the carp and the barbel—certainly powerful fish; but with any other, in comparison with salmon, the difference really is no less than between hooking a straw, and drawing up from the bottom of the river a large post. No one who has not felt or seen a salmon in hand can form the least conception of its comparative power. Hook (even with snap-tackle and a spinning-rod) a jack of eight or nine pounds, at first he gives a shake or two, but still you may go on, wind, wind, till he is on shore; but hook a six pound salmon, and for ten or twenty minutes, at

least, it is doubtful who will be master! It is this renders salmon-fishing so gloriously superior—spoiling us for all minor work, reducing other fishing to mere child's-play, and leaving it to be tolerated only because better is not within reach. But talking of the strength of fish and hard fighting—wait,—I do believe I have it in my pocket; yes, here it is—a copy of the Captain's own letter. I'll read it to you:—

"*An Account of the Capture of a Saw-fish by Captain Wilson of the Halifax Packet West India man, off Trinidad, on the 15th of April*, 1839.

"Being in the Gulf of Peru, in the ship's cutter, I fell in with a Spanish canoe, manned by two men, then in great distress, who requested me to save their lives and canoe. Going along-side for that purpose, I discovered that they had got a large saw-fish entangled in their turtle-net, which was towing them out to sea, and (but for my assistance) they must either have lost their canoe or their net—perhaps both—which were their only means of subsistance. Having at the time, only two boys with me in the boat, I desired the Spaniards to cut the fish away, but which they declined. I then took the bight of the net from them, and by the joint endeavours of themselves and my boat's crew, we succeeded in hauling up the net, and to our astonishment, after great

exertions we raised the saw and head of the fish about eight feet above the surface of the sea. It was a fortunate circumstance that it came up with its belly towards the boat, or it would certainly have cut the boat in two. I had abandoned all idea of taking the fish until by great good luck it made towards the land, when I made another attempt; and having about fifty fathom of two-and-a-half-inch rope in the boat, we succeeded in making a running bowline knot round the saw of the fish; and this we fortunately made fast on shore at Point-à-Pierre. When the fish found itself secured, it plunged so violently that I could not prevail on any one to go near it. The appearance it presented was truly awful. I immediately went alongside the *Lima* packet, Captain Singleton, and got the assistance of all his ship's crew, mine being away for sugar. By the time they arrived it was a little less violent. We hauled upon the net again, in which it was still entangled, and got another fifty fathoms of line made fast to the saw, and attempted to haul it on towards the shore; but although mustering thirty hands, we could not move it an inch. By this time the negroes belonging to Mr. Danglade's estate came flocking to our assistance, making, together with the Spaniards, about one hundred in number. We then hauled on both ropes for nearly the whole day, before the fish became exhausted.

On landing it on the beach we found, to our great surprise, that it was considerably larger than the cutter, which measured seventeen feet. On endeavouring to raise the fish, it became most desperate, sweeping with its saw from side to side, so that we were compelled to get strong guy ropes to prevent it from cutting us to pieces. After that, one of the Spaniards got on his back, and, with great risk, cut through the joint of the tail, when animation was completely suspended. It was then measured, and found to be twenty-two feet long, and eight feet broad, and weighed nearly five tons! The liver filled a beef tierce, and on opening the body we found several eggs, the size of 18lb. carronade shot, which the negroes craved as a great luxury. The only part which I retained was the head, which I cut off below the lower jaw. It is now in a fine state of preservation, and the largest, I should say, in the world."—26*th Dec.*, 1839.

And so should I. I was favoured by a sight of its head and saw, in Mr. Eaton's shop, Crooked Lane, who gave me this paper. The saw was five feet long, and eleven inches broad in the widest part of the bone merely, without reckoning the teeth. It was purchased by Mr. Josiah Rumbell, and presented by him to the Wisbeach Museum, and a very fine specimen it is.

Herb.—What a monster! but give me a sal-

mon. I know that you consider this to be, generally speaking, a tolerable fishing river;—what do they say of its present supply?

Theoph.—There are, without doubt, many salmon now in it, though the first good freshet will greatly increase their numbers. It at all times abounds with small common trout, and white trout or morts, as they are called; sea-trout rather later in the season; plenty of par and eels; and many fine and delicious-flavoured flounders are to be taken in the upper parts of it. The worst of this, as a salmon river, is, as with many others, the uncertainty of its supply of water; a little rain soon fills it, but as soon again it becomes low, although it may be said to have five principal sources,—the Llugwy from Carnedd David and Llyn Capel Curig, the Lledar, from Moel Shabod, the Machno from Penmachno, its proper source from Llyn Conway, and the nameless streams skirting the mail-coach road from the mountainous plains between Cernioge Inn and Pentre Veolas, besides many inferior contributors during wet weather. One great recommendation to it at the present time is, that, (with the exception of two pools a long way up above Bettws, not otherwise "fishable," owing to the quantity of timber about them, namely, the "Beaver" and "Tyn y Cai" pools, and where they do no more than drag occasionally) no nets have desecrated its

THE WALL STREAM ON THE CONWAY NEAR LLANWRST.

fastnesses above Llanrwst Bridge, for years past. From the Bridge to Trefriew below, is let for netting as well as angling. But in some of the best angling spots in that part the nets cannot venture. The ground being too much broken and protected by sunken piles; nor do the renters of it, who merely drag with a corracle-net, appear very well to understand their business, and, therefore, they do not very much lessen the supply. There is a stake net at Conway, its mouth, in addition to two or three intermediate traps. True, none of these engines work during the fence months, from the 1st of October to the 1st of March; yet, if a few more fish than can do so at present, were allowed at all times to run up this and every river for the next year or two, for each fish the wholesale fishers lose during that period, they would gain a hundred fold in the third season. You are aware that salmon bred in a river, as a general rule, are certain to return to it at the proper seasons to deposit their spawn, and it is much to be regretted that greater pains are not taken for awhile, by all parties, to preserve and improve the run and breed of salmon; they are now daily decreasing here, and everywhere, and if once wholly deterred, good-bye to them for ever—at least, it would be years before they could be recovered.

Herb.—Is it so certain then that fry bred in a

river always return to it, and that none others ever venture to do so?

Theoph.—Perhaps not always; for though many have been marked and most have returned to the same river; yet some very few out of their numbers have been taken in strange waters. Mr. Yarrell mentions that fish marked in the Tweed are taken in the Forth, and that a successful season in the one is generally attended by a bad one in the other. Here then is evidence of salmon being found straying to a river, perhaps at least one hundred miles from its original birth-place. Whither salmon go, while out of the fresh water, has never yet been determined; it is as yet a mystery. The probabilities are, that they do not rove very far from the mouth of their original river, though it was asserted by one witness examined before the House of Commons, that they migrate to the North Seas: and the fact of their never being taken at sea near our salmon rivers, seems to favour this supposition. The preponderance, however, of evidence taken before the House of Commons since 1824, shows that fry always return to rivers in which they were spawned, those only which lose their reckoning resorting to strange rivers, selecting the nearest they can hit upon to suit their taste.

Herb.—But as to the growth of salmon, tell me what you think? because I remember having

LEISTERING SALMON IN THE TWEED.

Bar Fish Light

read that fry marked in April or May, will return in July from the sea, and would then weigh two or three pounds and upwards. If that be so, provided a few stock fish were left, it could hardly require so great a length of time to "re-animate" an over-draughted or over-poached river.

Theoph.—Yes, indeed; for, supposing them to increase in weight in the same or even a greater proportion every year, still it would require three or four years at least to produce a quantity, which is what we most require—all accidents considered, of which anon. As to size, there exists little doubt that fry which go down to the sea in May, little longer than your finger, will return, in July and the following months, young salmon or grilse of from four to seven or eight pounds, increasing in size with each successive month,—it being generally estimated that from June till September or October, they grow at about the rate of half a pound per week while at sea; and therefore, perhaps, if we could only be assured that no netting or poaching would take place in a river, and IF ALL the fry survived their many dangers and returned to us here in the summer and autumn, the produce of one pair of salmon would be enough. The number of *ova* in a salmon are reckoned on the average at 18,000 or 20,000; and 12,000 are thought to be the

average of fry vivified ; so that from a single pair of salmon, spawning in December, in the following August we should have, say 4000 pairs, male and female, of from six to nine pounds, and 4000 non-breeders: then suppose each of these pairs produced their 12,000 fry; in the following August, the second year, we should have the original 12,000 large fish of ten to twenty pounds, and their young, 48,000,000, from six to nine pounds, making in all, 48,012,000 fish ! ! What a sad pity it is there is an "if" in the case !—"*If* they escaped their manifold dangers"—Heavens, what sport !

Herb.—Perhaps you will, at some other time, tell me what those dangers are. Meanwhile, let me ask, whether you have read Yarrell's recent Observations on the Growth of Salmon*?

Theoph.—Rather say Mr. Shaw's; for it is more a criticism by Yarrell on what others have written, and said, than any thing else. I have read them, but am not yet prepared to give my assent to a doctrine which is contrary to the opinion of every salmon-fisher I know, and of every witness examined of late years before the committees of the House of Commons, upon the salmon fisheries' question. These latter were for the most part practical men, who had been engaged in whole-

* Published by Van Voorst, 1839.

sale salmon-fishing all their lives, many, evidently, from their examination, acute observers; and they are, I think, unanimous in declaring their opinions to be, that the growth of salmon is as rapid as you just now intimated. No one will doubt but that it is almost an insurmountable difficulty to determine which is right, they, or Mr. Shaw, from the utter impossibility of making, and therefore of arguing from, actual experiment: and we know so little of the habits of fish, especially *migratory* fish, that it is as difficult to reason by analogy. With regard to Mr. Shaw's experiment, we may reasonably doubt its sufficiency, because the animal was not in its natural state when confined in his small pools or ponds. As Mr. Yarrell observes, Mr. Shaw had three ponds,

1st	18 feet by 22
2nd	18 feet by 25
3rd	30 feet by 50.

And Mr. Shaw himself admits that those fry in the third, the largest, were one inch, which is equal to one-fifth, larger than the others at six months old: and what is thirty feet by fifty, and "two feet deep," "supplied by a small stream," and of "higher temperature," compared with the length, breadth, depth, and lower temperature of a noble salmon river, bounding, and rolling, in freshness and majestic

freedom ! Besides which, the more rapid growth of the salmon is admitted to take place in the salt water, which Mr. Shaw's fry could never taste. How he gets at the fact that the fry "do not go down to the sea till they are more than a twelve-month old at the least," I cannot understand: (his *could* not !) for thus much we know, that during April and May, the fry may be seen in the river by myriads; that their journey downwards has been traced, as it were, from day to day at that period; that bushels are destroyed in mill-races on their way towards the sea, and dozens upon dozens every day, for a month or six weeks, by angling; and that before June they totally disappear, and nothing more is seen of them or the like till the following year. Even assuming, for argument sake, the par we meet with in the autumn, to be young salmon, we never see shoals of these or any fish, small or large, after June; yet if the fry remain for a year in the river, still congregating, as we know them to do in the early months, in such countless numbers, surely something would be seen of them at a later period. But though many have looked for them, nothing is found in the river, during the autumn, except a few of what we call "par," and which we never take much above or under five or six inches in length.

Herb.—But Mr. Shaw says, that these par are

the young fry of the salmon of the last autumn's produce.

Theoph.—What I say is, that the very paucity of these, found in the autumn, compared with the immense shoals of small fish of the same size seen to go down to the sea in the spring, proves them not to be the younger fry of the salmon; and, moreover, we have repeatedly taken in autumn these which we call par, with the milt ready for exudation, and with roe, in the females, in a less forward state. There is this fact also, which is observed by anglers, that in the autumn, though we take a fish we call in Wales "Morts," (somewhat resembling the salmon, but with a forked tail;—weighing from three quarters to a pound and a half, and about thirteen inches in length, and which I take to be a distinct fish from the salmo salar); we scarcely ever take a fish between that weight and four or five pounds. The average of salmon taken at this time, and in this river, where they run as large as thirty pounds, may be rather placed at ten or twelve pounds than under. But if the growth were so slow as Mr. Shaw indicates, the probabilities are, that the rivers would abound with, and we should take, a greater number of the smaller dimensions; especially considering that the smaller river-fish of other species are much more readily tempted by our various baits than the larger ones. Then

again, the subject is open to this observation, that all terrestrial animals, except mankind, attain nearly to their full growth, within a year or two after their birth ; and why should not fish ? True it is, that fish live to an enormous age, if the stories told of them are to be credited ; and salmon have been known of upwards of eighty pounds weight ; but I see nothing more marvellous nor incredible, in a fish attaining to twenty pounds weight in two or three years, than in a dog weighing as much, and being as large at eighteen months old, as it is at nine years. I do not fear, therefore, to express my opinion, that Mr. Shaw is wrong. I believe, firstly, that par are par, and not salmon fry; secondly, that it does *not* take more than ten months to produce a salmon of six or eight pounds weight ; and thirdly, that the fry go down to the sea in the first May flood after their being called into existence.

Herb.—In the waters of a gentleman I am acquainted with, I knew of a trout which was *thrice* captured within a year : about the end of December it was unintentionally hooked and taken out, and weighed four pounds and a half, marked, and turned back again. Early in the following March it was again taken, weighing five pounds and a half, and turned back. In June following, strange to say, it was a third time captured, and found to have increased to seven pounds.

Theoph.—That is very likely; but you must allow something for the bad condition it was probably in on the two former occasions; having, we might suppose, recently spawned upon the first. A salmon which, full of spawn, would cause a twelve-pound weight to kick the beam, would, as soon as the operation was over, lose at least five pounds, not merely from the emission of its spawn, but from the general decline in its condition; and if you were to mark such a fish when only thus weighing seven pounds, and catch him in the following year, you would be surprised to find he had increased to near twenty pounds. They are perfect gourmands while at sea; and this it is which nourishes and increases them so astonishingly. But you were asking me about this river. Success here entirely depends on the state of the season. In fine dry weather, one may toil through many days, not to say weeks, without a rise. But let a fresh come, and you will have a pretty good "*take*" for a day or two. In two instances, six or seven, varying from four to fourteen pounds, were taken by one angler in a day, last season; though this is most rare sport. I have, myself, taken two, thirteen and ten pounds, and lost, after playing them some time, one of about fifteen, and another of ten pounds, and pricked three or four, and had a few rises besides: all which *might* have been realised. Two fish of any weight, say from seven to twelve pounds,

in a day, and that occasionally, say once or twice a week, is, however, looked on as great success. My notion, however, is, that this river might be much improved as an angling river, with a little more care and watching. It abounds in all the *locales* in which salmon delight—plenty of deep quiet pools intermingled with numerous gentle streams, plenty of rocky rapids and deeps, plenty of small falls above, plenty of gravelly shallows, as spawning ground, and not a single noxious mill-stream or manufactory near it. And, from this constant variety in its character, it constitutes, perhaps, one of the best schools for beginners in the noble art of salmon fishing. But here comes a good old soldier, who escaped the carnage of the American war. *(Enter the Keeper.)* Well, Keeper, what news this morning? Any thing done below?

Keeper.—Eh! Gentlemen, I am glad to see you have caught a "grand saumon." Mr. Llewellyn has taken only two morts. Your friend Antiquarius bid me convey this letter to you.

Theoph.—What is this? Most à propos.—(*Reads.*)—"Bettws y Coed. My dear Theophilus,—According to promise I send you the enclosed, my observations about par. Your's ever, Antiquarius." Something most excellent, I warrant you. He has studied the subject, as well as the time of their delivery, it would seem! Let us read them. (*Reads.*)

The Natural History of the Par.

The following observations on the par are the result of practical experience during twelve or fourteen successive years; and, though differing in some points from the general received opinion, they coincide with the remarks of a few intelligent friends, who have lately devoted much time and attention to the subject.

Although the history of the par may at first appear scarcely worth the trouble of investigation, yet this is not really so; for independently of its interest as a long-disputed question in natural history, various legislative provisions have, from time to time, been made on the assumed nature and species of this curious little fish; indeed, so various and contradictory are the opinions entertained respecting it, that, on consideration of all that has been said and written upon the subject, the naturalist is inclined to believe nature expressly intended it as an enigma for the solution of the curious, with the perplexing properties of changing its form and character, as the chameleon was formerly said to do its colours, to every individual observer.

The par, skirling, fingerling, graveling, last-spring, shedder, sampion, rackrider, or smelt,—for by all these names, and many others, it is locally known—is a small fish, seldom exceeding six inches in length, though usually found much

smaller; it is the ordinary inhabitant of every salmon river; and, in general appearance, closely resembles the common burn trout, particularly such as have the finger marks. These are *dusky, transverse*, stripes or patches on the sides, very similar to the well-known marks found on the perch. They are generally from six to ten in number, according to the length of the fish; and between each of these dusky patches, on the lateral line, is a bright red spot, below which, the par is rarely, if ever, marked. The belly is perfectly white. Another distinguishing mark of the par, is an olive brown spot on the gill cover, and this it is never without. Its general habits resemble those of the trout, being extremely voracious, and frequenting the most rapid streams, particularly those thin sharps or streams, anciently known by the name of racks; hence its territorial epithet of rack-rider.

Many speculative opinions, and numerous theories have been advanced, touching the nature and species of this mysterious little fish. Three, in particular, would seem most deserving of consideration; First, that it is the young of the salmon; or, at least, of one of the salmon tribe; Secondly, that it is a mule, or hybrid—the mutual offspring of both the trout and the salmon; and, Thirdly, that it is a distinct species.

A very slight examination into the habits of

the par, as compared with the well-known habits of the salmon fry, will destroy the first of these theories; and the second certainly cannot be maintained by a single known fact, *sufficiently strong to support it.*

In tracing the habits of the salmon fry, than which nothing can possibly be more constant and decided, it will be found, that they are emancipated from the egg or roe of the parent fish, about the latter end of March, or the beginning of April, a few days earlier or later according to the nature of the river, and peculiarity of the season; but prior to that period, not a single fish will be found in the river; although a few days afterwards, they may be taken by hundreds in every stream of a good salmon river; there they will continue, for six weeks or two months, at the end of which time the successive spring floods will have so completely taken every fish to the sea, that not a single one of the many thousands that were bred in the river, will be discovered. During this period, their growth is very rapid; indeed so much so, that during the last few days of their stay, they have been frequently taken in the tide-way (the tide being out), a quarter of a pound weight; although, a week or two before, it would have been difficult to have obtained one weighing an ounce. In appearance, they so closely resemble the parent fish, in its highest

state of perfection, as to be, to all intents and purposes, a salmon, or a salmon trout—as the case may be—in miniature. On the other hand, the par has no greater resemblance to any one of the salmon tribe, than the common trout. It will be found in the river, in the cold months of December and January—long prior to the appearance of the salmon-fry—and although it will associate with the fry in the same streams, it will not, like them (at least at that period), migrate, but will remain in the river after the fry have gone down to the sea; it will there continue in abundance, throughout the whole summer: and many will be found when the cold weather returns. On what grounds, therefore, can it be contended, that fish so essentially different, both in habits and appearance, can possibly be one and the same?

On examining the par, about the early part of October, at which period it would seem to have attained its full size (sometimes two ounces), a very curious question arises, which, while it affords the most satisfactory evidence that it is not the young of the salmon, leaves the question of its real habits in considerable doubt. At this period, almost every fish that is taken (that is, with the rod and line), will be found to be males, the milt of which is usually so large as to comprise nearly one-fourth of the weight of the whole fish; and in so forward a state, as to be

shed on the slightest pressure; while in the few females that are taken—and these are not one to ten of the males—the roe is so backward as to be detected only on close, almost microscopic examination. To this apparent anomaly may be attributed almost all the existing uncertainty as to the nature and habits of this little fish.

It is a well-established fact, that many fish will not take food in an advanced state of parturition; of this, the salmon itself is a very strong instance. In the fresh water (to which it resorts during that period), although abounding with small fish, the salmon is *ever* found with an empty stomach; whereas, the stomachs of such as are taken in the estuaries and tide-ways, are frequently full of whitings, haddocks, sand-eels, and other fish; showing, as might be expected, from the rapidity of its growth, the construction of its jaws, throat, teeth, &c., that it is really a fish of most voracious habits. Again, there are other fish, the male only of which, during the period of parturition, will feed, and this is particularly the case with the grayling. On the approach of the spawning season, the female wholly ceases to rise at the fly, or take a bait, although the male, during that period, will greedily do both. If these habits be peculiar to the par also, the great preponderance of males taken, as well as the apparent discrepancy between the state of the male and female at that

season, is very satisfactorily accounted for. But whether this discrepancy is, or is not correctly attributed to the cause just mentioned, does not at all affect the conclusion necessarily resulting from the facts before stated, which is as clear as any position drawn from positive demonstration can possibly be, that a creature (whether male or female it matters not), immediately about to propagate its species, is not a creature in a state of infancy, but in a state of maturity, and that, consequently, the par is not the YOUNG of any fish, and cannot, therefore, be the young of the salmon.

Those who profess to consider the par a mule fish, assert, firstly, that trout are frequently seen on the same scour together with, and as if spawning with the salmon, and that the par is the produce of this union; that they are either all males, or at least, are never found with a clearly developed roe; for, like all hybrids, the par has no perfect organs of generation; Secondly, that as the par is always found in salmon rivers, and no other, and is never found even in such parts of those rivers, up which, owing to falls, weirs, and other obstructions, salmon cannot ascend, it must, therefore, necessarily, directly or indirectly, be connected with that fish.

The mere circumstance of salmon and trout frequenting together, in the spawning season, such part of a river as is best adapted for their

purpose, affords so little ground for the conclusion drawn from it, that it is not worthy a moment's consideration; and recollecting that the trout will greedily feed upon the salmon spawn, the idea of their being together for the purpose of gestation, can only have arisen from mere wantonness of speculation.

By considering the nature and character of hybrids, and the general laws and principles which govern their production, and carefully comparing these with the known habits, character, and appearance of the par—the utter improbability of its being a mule fish will at once be shown. It may be safely asserted that amongst creatures in a state of freedom, no one instance of a departure from the immutable laws of nature, which assign to each an affinity for its kind, has ever yet been detected; and it is only by constraint that this inconsistency can be effected; and when produced, the offspring are ever accompanied by a capricious and doubtful resemblance to either parent, and, above all, by a total want of harmony and definite character amongst themselves. Now, as an example of any deduction from these principles, the par is in every respect utterly opposed to them. It is in the highest degree improbable that trout and salmon left to the free influence of their own separate instincts, unrestrained in habits, and unconfined in space, should depart from the

ordinary laws of nature, obeyed by every other creature; and still more so, that the offspring of such a union should be, as the par undoubtedly is, both in respect of its various spots and marks, as also in form and general appearance, one of the most perfect examples of constancy that nature can produce. Besides these objections, it should be recollected that there are many species of trout, as also several species of salmon, and assuming for argument, the possibility of such a union, it would necessarily produce some variation in the offspring; but none such is found in the par, it being always alike. Although its assigned parents—the trout in particular—continually exhibit every variety of form, marks, spots, size, colour, and appearance that imagination can conceive. It is said that this union between trout and salmon is the work of necessity, and takes place only when the male or female salmon has been destroyed; but if no instance of the production of hybrids can be shown amongst carp, tench, roach, dace, and other fresh water fish, closely and artificially confined, as they continually are, in small ponds, ditches, &c., it is clear that the necessity for a cross amongst fishes in general does not exist; and if so, it is absurd to plead the necessity for such inconsistency amongst trout and salmon in particular, wholly unconfined as their theatre of existence must necessarily be, save by the ocean itself.

That par are never found in rivers, but such as are immediately connected with the sea (all of which more or less afford salmon), and never in such parts of those rivers up which salmon cannot ascend, is strictly true, and any instance to the contrary, will, upon enquiry, turn out to be the work of art or accident, not affecting the general rule. But this does not establish the fact of any connection between the two fish.

The power of closely observing fish in its element is necessarily very limited ; much, therefore, of their history must always depend on conclusions and analogy. Now, assuming the par to be a migratory fish—and there is reason to believe it is so—all incongruity in this part of their history is at once removed. Like all other migratory fish, their travels must have a limit ; and a fall of water that cannot be ascended by a salmon cannot possible be attained by these little fish : hence they are never found except in rivers immediately connected with the sea, and never found above falls, weirs, &c., up which salmon cannot ascend. The only question seems to be at what period do the par migrate, as they are certainly found in the rivers during the whole year, although as certainly not in equal quantities. Now, it is perfectly well known that all fish immediately after spawning become in a very unhealthy state, their bodies at that period being infested with numerous water lice,

animalculi, &c., for the removal of which, and a restoration of the fish to health, a change of place is absolutely requisite, and that with migratory fish, deleterious animalculi, &c., acquired in the river, are lost immediately after their entrance into the salt water. There can be very little doubt, therefore, but that the par migrate at this particular season, and assuming their migrations to be for a short duration only, commensurate with the restoration of their health and strength, as they cannot all be in a situation to leave the river at one and the same time, many will have returned before others will have gone down to the sea, and thus more or less they will always be found in the river. Be this, however, as it may, from a consideration of the facts already stated, and which for the most part have their foundation in practical experience, it seems extremely difficult to look upon the par in any other character than as a distinct species of fish."

Theoph.—Well said, most excellent Antiquarius; and in every respect I *entirely* agree with you. Herbert, I never read a more convincing argument.

Herb.--Might I add one observation to strengthen it, I would say a word about the par always being found in rivers where salmon are, and never in parts of rivers where salmon cannot get. From their hanging on scours and swift

parts of streams, we may infer them to be a strong little fish. But how do they get up high falls which salmon are obliged to leap? I take it that salmon only leap the falls because there is not a sufficient body of water to admit of their swimming up; though, if the same force of water came in greater body, they could swim through it with ease. The par cannot leap; but from their smaller bulk and still sufficient strength, can swim up them. Besides, I assume that there are few falls where salmon can leap, which are not much reduced in height by a heavy flood or fresh of water. But tell me, do you ever fish below Trefriew? I was wondering, as I walked by the river side yesterday, whether salmon ever took the fly in the tide-ways, in the sea, or in brackish water.

Theoph.—I believe that they never do in such sluggish tide-ways as this, for one very good reason—that we seldom try. There is but one likely place: that is at Tal-y-cafn, about half-way down towards Conway. A few isolated attempts have been made there by us upper anglers, but without success—it is too far to go often upon a chance. Fish are occasionally seen to rise there, it being a shallowish, rocky, rapid bit of stream. In some situations, however, they will take the fly in the sea, in brackish water, and in tide-ways. I once submitted a question on this point to some friends.

From Sir Hyde Parker I learnt that "there are two rocks in the sea, not far from Dunrobin Castle, Sutherlandshire, where salmon take the fly in the strongest salt water. A strong race runs by these rocks, and the salmon take here two hours before low water. A friend of Sir Hyde has been very successful." My friend Medicus, living here, tells me that he knows that at the head of Loch Swin, in Argyleshire (close by the Sound of Jura), which is a pure salt water loch or bay, salmon will take the fly in a breeze during the last half-hour of ebb and the first half-hour of flood tide. He has seen them rise there in very great abundance—thirty or forty in five minutes, for one or two hours together. To use his own expression "a Highlander used to hit them off in fine style," once, while Medicus was there, taking fourteen small salmon in an hour. He says the fish come to this station every season, and there remain for four or six weeks, finally going elsewhere: there is only one small fresh-water stream running into this loch, too precipitous to allow salmon to get up it. But then again, from the Hon. Richard Hely Hutchinson I receive the following opinion:—

"I am persuaded salmon never take the fly in salt water; I have heard of men who had heard from others that they did, but I never could yet find any one who had either killed salmon themselves, or known any man who, to his certain

knowledge, had killed them in salt water. I have fished a great deal in tide-ways with the fly, and had admirable sport: mackerel, whiting, pollock, and sand-eels, may be taken in great quantities. The fly is a white feather, projecting considerably over the hook, and it resembles the herring fry, of which both mackerel and pollock are very fond."

As to salmon fishing in brackish water, he says—

"Salmon take the fly in brackish water. I was quite ignorant of this fact until last year (1838). The Costello river in Connemara, twenty-one miles west of Galway town, belongs to a club, of which I am a member; perhaps there is no river in Ireland, or any other country, in which there are more salmon. The tide runs up about half-a-mile, for the most part over a bed of rocks and turf soil. The oldest fishermen on the river never had known any man to kill a salmon below the bridge until last season, when one of our members, Mr. Martin of Ross, hooked what he conceived to be a white trout, just as the tide was running up; the keeper, in attendance on him, swore it could not be a salmon, as they never took in brackish water, but a salmon it proved to be; and I, having joined my brother angler, killed my share of eight fine fresh fish; they had all the sea louse on them, and were enormously strong.

There are two of these streams below the bridge, and the tide must rise seven or eight feet before the salt water can enter them. The salmon will take the fly, provided there be not much sun, until half flood."

Another friend of mine, an old fisher, once indeed hooked a salmon, in the sea itself, outside the river gates, at Tremadoc, while many were rising about the spot, waiting no doubt for the flood tide to open them an entrance to the river; but having only held it for a minute or so, he was unable to determine whether he had not (as was probable) merely hooked it foul; on two or three occasions, I have known fine base or base mullet (a fish somewhat like the chub, with the brilliancy of a salmon), varying from two to ten pounds, caught with a huge red salmon fly, in the sea, off the foot of Great Orme's Head, just after the tide had begun to ebb*. I tried once for them, but failed; though while thus occupied, I saw three or four fine salmon leaping high out of the water, about two hundred yards off. I am told, also, that these base have been taken half-way between this place and the sea, but I will not vouch for that fact. Perhaps, however, more might be done with perseverance both in tide-ways and in the sea. Some of the best

* If I ever tried this place again it would be during the *last* hour of ebb tide.

salmon-fishing is in the tide-ways; in rivers where the tide only reaches a distance of two or three miles from the estuary, having a rapid descent, and passing over a clear and rocky bed. In muddy tide-ways I should say, salmon, except at certain spots, and then only when the stream has clarified the river, would never take the fly, for one especial reason, namely, that they would not rest in the turbid parts, which must of course abound in a twelve miles course like this, and as we imagine, they never take the fly, when on the move. Mind you, the flowing-tide may dam up the current a long way up a river, as it does here; without, except for the time, hindering fishing; and I consider it only in those parts rendered foul by the flowing tide, where fishing would be useless.

Herb.—Then if a tide river, from any cause, constantly ebbs and flows clear, as, for instance, over a rocky bed, I suppose angling may be successfully carried on after the salt water is expelled by the current of fresh.

Theoph.—We practical anglers say, fish never rise at a fly while on the move. Then, again, there is plenty of evidence to show that salmon move up with a flowing tide, and either get at once fairly into fresh water, or return towards the sea with the ebb, and therefore do not rest in the tide-way. These two data would be

at variance with the notion of taking salmon in the tide-way; because if they are never stationary there, according to the second opinion, being on the move, they will not take a fly according to the first. But then comes a third data, for instance, that in the "Angler in Ireland," and there can be no doubt that in rivers of similar character to that of which he writes, fish will rise in the tide-way. Speaking of the Moy at Ballina, he, at vol. i. p. 151, describes it thus, "about one hundred yards above the old bridge, is a ledge of rock, where are situated the weirs or salmon boxes; they entirely occupy the whole breadth of the stream, with the exception of a narrow gap, to let the spent fish go down. Few salmon can pass above them, except in very high floods, until their removal in close time. Rod fishing extends from these weirs for about a mile down the river, but as the tide reaches quite up to them, there are three hours every day when all chance of sport is suspended by the entrance of salt water," &c.

Herb.—I see what you mean. In such a river, the fish, waiting in hopes of being able to ascend higher, are per force stationary, and may therefore take the fly.

Theoph.—Just so: except, however, in a river where the ebb and flow of the tide is so short, we may consider it as a general rule that when

not actually at sea, salmon are either in brackish water close to the river's mouth, or running up and down with the flow and ebb, or else pushing up above the influence of the tide:—and, therefore, never stationed in the mid space, between the stream and the mouth of the river; their object being to ascend above the tide, if the water be adapted to their taste, or else to retire seaward till it suits them.

Herb.—Is it an ascertained fact that salmon really float backwards and forwards with the tide, as it ebbs and flows? I had always thought that they came right on straight up the river, as soon as they once left the "deep, deep sea."

Theoph.—By no means so, as a general rule, except it be such fish as, with spawn in an advanced state, come to the mouth of the river late in the season. These, indeed, if a river be at all adapted to their taste, push up it at once without the hesitation which the clear bright fish exhibit; but the latter hover to and fro, very considerably, for days*—often for weeks, almost months,† before they finally ascend for the purpose of spawning. Some persons conceive that many fish, if the river continue low, or is not otherwise suited to them, will leave its mouth

* See Appendix to Second Report on Salmon Fisheries of the United Kingdom, 3d June, 1825, pp. 13, 38, 71, 104, 109, 116, &c. Id. June, 1824, pp. 35, 74, &c.

† Id. June, 1825, p. 116.

altogether and return to the sea, and there fruitlessly (for it is said it will not vivify in the sea), deposit their spawn, or, at all events, proceed to some other river. Be that as it may, that they swim, as it were up and down with the tide, as far as it reaches upwards, long before they proceed towards spawning ground, is sufficiently proved by the circumstance, that in the great fisheries, hundreds are caught by the ebb stake net in the estuary of a river, when the tide is ebbing, that is, while swimming, with their heads seaward.

Herb.—These nets are, I believe, those which have been so much quarrelled with by the river proprietors; but I never exactly understood them.

Theoph.—Bright clean salmon, at all events (for it is asserted, by the advocates for stake nets, that salmon advanced in spawn, proceed in deeper water returning to fresh water), grope their way along the sea-shore in order to find it; vacillating for the most part with the tide between high and low water mark. And these nets are either made to take fish when swimming towards the river, which are called flux or *flow* stake-nets, or when going away from it, called *ebb* nets, from the difference in the manner of placing them.*

* In Yarrell's British Fishes, vol. 2, p. 23, there is a drawing of one of these nets, to which I must refer the reader. Looking at it, down the left side of the page is the high water-mark, and on the right the low water, and the fish are taken swimming as it were from the top of the page downwards, so that the top may either represent the river or the open sea.

They are regular mousetraps, most destructive, and with great reason complained of by the river, or upper proprietors. Some doubts certainly exist whether all the fish which they take would ever reach the upper properties, because it is contended that not one half which come to the mouth of the river ever go up it. One of the chief reasons for this opinion being, the admitted fact that in thus swimming to and fro at the mouth, they continually become prey for the hungry shoals of porpesse, grampus, and seals, which more or less always hang about the estuary. But it is also undeniable, that hundreds and hundreds of salmon, which these estuary stake-nets catch, would sooner or later venture up the river, and there spawn, or be captured by the upper proprietors. My belief is, that these stake-nets are one principal cause of the great falling off of all the salmon rivers in the United Kingdom. They, in fact, destroy the seed of futurity to too great an extent. Too many salmon are taken.

Herb.—But I understood you to say that the spawning fish, from swimming upwards in deep water, do not fall into these traps.

Theoph.—That may be very true; but you forget, and so do the advocates for stake-nets, that every fish would spawn some time or other. Denying that they cause this injury, these gentle-

men throw the blame on cobble-net fishing, asserting that the heavy bottom-line, which is often necessarily drawn over the shallows at the head and tail of a pool in a river, tear up the gravel, and so destroy the spawn. They may be so far right; but instead of throwing off the blame on to others shoulders, they only prove the cobble-net to be an additional injury. Of a truth, salmon are most cruelly persecuted individuals, the friend of none—the prey of all. All, excepting a few gentlemen anglers, cry "havock, and let slip the dogs of war" on them, and it is only the wonderful and prolific care of nature, which spares us the few fish that are left. Their known natural enemies are the porpesse, grampus, and seals, and each of which, it is supposed will, if they can get a "*battue*" among them, destroy six or eight per diem. Then they are food for otters, cormorants, and sea eagles, when large; herons, bitterns, eels, trout of all kinds, and the elder salmon* themselves, while young; and trout, eels, and various birds, in addition to that little devil, the water-ousel, devour the ova. Then come the artificial injuries inanimate, such as mill races, heads, and leads, and eel baskets, in all of which the fry is destroyed by sackfuls on their journey to sea! and the foulness of water caused by manufac-

* Evidence before the House of Commons, June, 1825, pp. 20, 39.

tories, drives them from a river if it do not destroy them; their great human enemies are poachers, who make profit of the roe for bait; and the hundreds of spring anglers, who may each take perhaps twenty or thirty dozen per day, during April and May; thus we see how different a thing it is to estimate 48,012,200 fish on paper and in fact!—alas! where shall we catch a salmon twenty years hence if things go on long, as at present?

Herb.—Why, in America:—near Quebec (as I understood), I heard of a gentleman* taking forty-three salmon in two days, from twelve to fifteen pounds each! In this country it is impossible to conceive a worse state of affairs, important as salmon fisheries undoubtedly are to the well-being of the country, both as regards the supply of food they yield, and the employment they give the poor.

Theoph.—But the fearful list is not yet complete; there is also one natural cause over which we have no controul. Salmon sometimes run up the smallest rivulets to spawn in the winter; so much so, that a friend of mine, only last year, detected a little boy with three salmon, of eight, five, and four pounds, which he had taken in one spot, with his hands, out of a little running ditch,

* J. Strang, Esq. in the summer of 1839.

not too feet wide, and, in summer time, not three inches deep. If then, the winter be very wet, the quantity of water invites the fish into places left, perhaps, quite dry in the early spring; and should a dry spring ensue, not only is the mother fish killed by inability to get back to the main river, but the spawn is never vivified, being rendered totally abortive from the want of aerated water to nourish it. A dry spawning season is much more propitious than a very wet one, because the parent fish do not ascend too high, but if the winter and spring be wet, so much the better for them—the poachers are "at fault."

This reminds me, that there is one evil equal to, if not greater than all others, to which the diminution of salmon must be attributed, and which, if not taken up by the legislature, must lead to the total extirmination of the race; and that is, the want of preservation and protection in the sources of rivers, where fish almost universally spawn. It is impossible to remedy this evil unless you do one of two things, either give each upper proprietor a sufficient interest from the quantity of fish you enable him to take during the fishing season (which at present very few have), to induce him to watch, and keep off poachers, and preserve the spawners, personally, and at his own expense, or else to provide a fund for that purpose, raised by a proportional assessment, according to

the annual local value of each fishery on the river, or at its mouth, from among all the proprietors collectively. It is proved by the evidence to which I have so often alluded, that the larger and finer fish are more shy of entering a river early, but that more of this quality are taken at such time at its mouth only. I would therefore make a law, that the meshes and opening of the nets and engines should be proportionately wider as they approach towards the sea; and also, not only would I provide fence months,—not only enforce the law against fishing in any way on a Sunday, and the observance of what is termed the Saturday *slap*, viz. an opening of all nets, so as to allow fish free access upwards, from Saturday evening till Monday morning—but I would also enact that a *Wednesday slap* should be strictly observed. I would try this as an experiment; for it would, at all events, give the upper proprietors a better chance, and, if it failed or succeeded, would be alike injurious or beneficial to all. If it were tried for a year or two, all the harm it could do would be to lessen the supply coming to market during that period, while it must increase the quantity in after years. Angling out of season has been spoken of as injurious; especially because it affords the lower class (poachers to wit) a pretence for hovering about the rivers by day, thereby to detect where they can find the

fish, and bag them by night. This is moonshine with a vengeance! If a river be properly watched by day, as it should be, such characters,—always well-known in a neighbourhood,—are easily sent to the "right-about." But as to angling by the better class (mere angling for sport) what is the extent of its mischief? Not one out of twenty fish, over which our flies pass, is inclined to rise to them. And suppose there are six miles of river, and you give to each angler half a mile, and he takes six fish per week, which is a large average of sport for any river in the United Kingdom, here are seventy-two fish taken altogether by twelve men in the week. Now, in the same quantity of river, compare this with netting. Take the Foyle, we will say, in Ireland; we find that is fished for six months, or one hundred and fifty-six days, Sundays excluded, and, according to their returns, the proprietors took 55,906 salmon during A.D. 1835, averaging 358 per day, or 2,148 per week! What is seventy-two compared to 2,148? Anglers, perhaps, are the only body of men who are interested now-a-days in protecting the upper parts of rivers! This river in particular, I know to be solely protected by them: the upper part being open to anglers subscribing for their amusement, and a keeper provided solely to preserve for their sport. Each real angler therefore in the neighbourhood feels a

zealous regard to protect every fish he or his friends cannot take by fair means, and is willing, personally, and with his own hands, to enforce preservation strictly. I remember on one occasion (A.D. 1838), hearing late in the evening, that permission was (as we argued, contrary to the understanding with subscribers) given to certain parties to draw or net a great extent of this river during that night. What was the result? I and one or two more anglers sallied forth in the dark at once (for there was no time to remonstrate) and with our own hands pelted every pool, as far as we could, so as to drive the fish to the banks and to those streams where the nets dared not venture in the dark, for fear of entanglement. We succeeded; for in none of those places did the netters take a single fish. And next morning, to the great satisfaction of all parties, excepting the netters, we found that the permission had been wholly misunderstood:—for every "inch" given them, the netters had intended to take "two ells!!" and a stop was put to any further proceedings. If, on that occasion, blows had been requisite, we would have preserved the river, as the lawyers say, *vi et armis*—notwithstanding what may be said to the contrary*. I know, perhaps, a dozen other

* See Evidence before House of Commons, 1836. Question 1564, and Index tit. "Angling."

instances, in which gentlemen anglers have personally interfered to preserve the same river by night, as well as by day. None who know the angler's disposition can doubt it. But even anglers, if better chances were afforded to the river proprietors who use the net (those above the tide-way), would have so much better sport from the same cause, that they would feel less desirous of trespassing into the fence months. As it now is, in many rivers, they have little or no chance until netting ceases; because, no fish can come up to be caught. Some provision might be made to limit the number that anglers should appropriate to themselves; they might fish and return all above a certain number in the day to the river. But I say, PRESERVE THE SPAWNING FISH AND FRY; for, without it, everything else is useless. And let me suggest, that not only should the lower as well as the upper proprietors contribute to the expense of preserving, but the whole neighbourhood of a salmon river, or the county, or counties through which it flows, or which it divides, ought likewise to do so; in as much as these feel the benefit in having fish more plentiful and cheaper; in their moral improvement (which should never be lost sight of in legislation); and, by the prevention of crime, ultimately lessening the expenses of punishment. I entirely agree, as to the destruction of fry by

angling. There the fish is born, and every one of the twenty dozen which a little boy may take in a day with a bent pin and thread, might, in all probability, in three or four months, be a sufficient meal for a dozen people. This I would stop, by prohibiting angling for small fish, or with small hooks, during the month of April and part of May; for, as one witness very properly remarked to the Committee of the House of Commons, "it is purchasing a very little personal amusement at an enormous cost to the community."

Chapter X.

Scene.—The River above the Quay stream.

Herb.—Come now, fire away,—where first am I to expect to find fish?

Theoph.—Pray be patient, and understand that as a general rule, you may expect fish, small or large, in every part of a trout or grayling stream, with this exception, that they do not lie over a muddy bottom, nor in holes frequented by chub or pike; for the reasons that they love gravel better than mud or clay; and that pike are quarrelsome companions! From one to three feet deep of rapid water, among clusters of weeds, is their great delight; and though large trout frequent deeper and stiller positions by day, and may rise at the fly occasionally, it is not under such circumstances that they are actively on the feed. Where a rapid stream, such as I have just alluded to, terminates in a deep hole, it is at the head

of the hole rather than at the tail that large trout lie. So at a high fall of water, as over a weir, it is rather under, than in the fall, or else close under the adjacent sides or banks, that they "hold their court." Grayling, on the contrary, are ever found, in both these instances, at the tail end rather than at the head of the hole, unless they be on the shallows above. At a large weir, little is to be expected in trout-fishing with a fly; because you must fish much deeper than the rush of water will allow, and there, spinning or bait-fishing comes in with good effect. But if there be a gentle glide of water, having a sloping fall, and causing no very great depth of hole, then, in the rapid ripple it creates, is the place of all others I should prefer for trout. Where deep water shoals up into shallow at the tail end of a weir, there lurk the grayling; and, if at the termination of the deep hole, which the fall of water causes, there are beds of weeds,—which generally happens,—then the trout, and good ones too, will be there also. At night-fall large trout, becoming more bold, sport themselves as much on shallows as smaller ones have done during the day-time; because there it is that they find food of all kind more readily. Minnows are there in abundance; and, if the fish seek flies of any kind, they can lie nearer the surface, down which the winged prey floats, and they have the quiet,

created by the weeds, to resort to, when they wish to avoid that necessity for exertion, which their being constantly at the surface would impose upon them. It is strange how fond fish sometimes are of avoiding the light, as though their deeds were evil! Under dark arches and culverts large trout are almost sure to be met with. But the bait must not be the artificial fly —rather a worm or a minnow—that is, if you choose to turn poacher occasionally, and with this propensity, you are always sure to find trout ready, either for worm or minnow, under the roots of bushes, where deepish water rushes past them, and hollows away the bank. The shade of trees is always very inviting to fish.

Herb.—You spoke of a chub-hole. How do you distinguish it?

Theoph.—Don't ask too much, or you'll beat me. Chub love to lie in deep sluggish water; consequently, where there is mud or clay, rather than gravel at the bottom of the river, and in deep water, where the banks are much underworn by the stream setting in directly on to them, consequently in acute bends of the river: a hollowed bank is their chief delight; and it is not rapidity of stream which drives them thence. I know the head of one of the aits on the Thames, a little below Hampton (I think it the one which extends down to Hampton lock), where the stream

THE THAMES ABOVE TWICKENHAM.

is so rapid, that it is every year fast wearing it away; and this spot is most excellent for large chub, and I could enumerate very many like it. The side of a much worn bank, though it runs quite straight, is, if the water be swift and deep, sure to produce chub. A regular chub-hole is very often a good pike-hole. I know a few where, in their respective seasons, I can always make sure of these fish.

Herb.—But to return to our nobler prey, the salmon, do not they take worms, and even a spinning bait in rivers? I learn that those are the great means resorted to in Norway.

Theoph.—I grant you, that as regards their taking worms, it is a puzzler. So I believe that they have been seen to take natural flies on this river, and have been taken by dibbing with the natural fly. But a spinning bait offers the extra temptation of something glittering, and having a motion communicated by our hands and by no means natural to a living fish; and I never heard of their taking a live bait, as jack, and perch, will do. Upon the whole, therefore, I fear we must place this also among the many subjects connected with the natural history of fish, as to which we are, I regret to say, entirely in the dark at present. Still, however, from all we have to base any opinion upon, I feel quite justified in saying that salmon do not, and cannot take our flies

from any resemblance they bear in shape or colour to living or natural prey, and I am, therefore, not prepared to say that we have any reason to employ particular feathers or other material in a fly on account of their colours. I cannot, at present, admit it as proved, that colour has anything to do with the "takingness" of a fly. I do not really think that a salmon looking upwards from his depth below, can distinguish more than that an opaque object is passing by him, and provided he is inclined to stir, my idea is, he will do so, whether the suit be red, or blue, or green, or yellow.

Herb.—Do not you then prefer one kind and colour of fly before others? What is your secret charm?

Theoph.—Aye, "there's the rub." I have found three or four flies pre-eminently successful, and, in consequence, I persevere more with them than with others. With trout you must be exact (more or less), as to colour; but, in making salmon-flies everything, in my opinion, depends on the mode in which the materials are worked up; the appearance of life which, from the mode in which the wings in particular are put on, is given in the motion we communicate by the play of the rod. That, I think, is the whole secret of salmon fly-making. But, at the same time, I am not so over-confident of its correctness, that I would

cease to give preference to one coloured fly over another, and, therefore, I will willingly describe a few flies which I consider killers for such weather and water as the present, namely, bright sun, with flying, screening, clouds, rippling breeze, and low and bright water. But let me first intimate to you that on pools much deeper than we have fished this morning, and on rapids, you dress them on larger hooks; and, on streams, on smaller hooks. Well, then, the first fly I had on, and which killed a fish, was about fifteen-sixteenths of an inch long, from shank-end to bend. This fly I made from Ronalds's beautiful work, the "Fly-Fisher's Entomology," as the stone-fly for trout. Its tail is composed of two fibres of a long grouse hackle. The body is a mixture of bright yellow mohair, and a considerably predominating portion of the fur from a hare's ear; but there is a greater proportion of the mohair at the tail, which gives it a yellow appeance in that part. Over this, representing the joints in the fly's body, is wound, spirally, palish yellow floss silk. The hackle for the legs, is dyed a dark olive, and the wings are made of about fifty fibres from a light mottled feather, off the hen pheasant's wing. In addition to this, the fly happened to have for its head, projecting forwards, two whisks of sable fur. But

I do not consider that they had any effect towards the fascination of our friend Salmo. I may as well tell you now, once for always, as I shall have frequent occasion to mention "the wing-feathers" of a bird, that unless I specify any others, you are to understand that, taking off, and exclusive of five or six of the longest, which are termed pinion feathers, and in fact form the point of the wing, I refer to the eight or nine next largest in size; and of them we use the fibres on the concave side of the stem, corresponding to those which, as a matter of course, you would strip off from a goose quill preparatory to making a pen. They are much finer and rather longer than those on the other or convex side, and are, therefore, preferred.

Here is a fly of a similar pattern to that which so raised your ecstacies, and with which you *might* have done execution before breakfast. It is of a more elaborate description than the preceding one, a regular salmon-fly; and, by-the-bye, it is a great favourite here, so remember it well. The hook was, perhaps, a sixteenth of an inch less than the preceding, namely, fourteen-sixteenths long. Below the tail is thin silver thread or wire, then comes a golden pheasant's top-knot for tail; above that, three or four turns of black ostrich hurl. The body, of crimson mohair left rough, is ribbed over with silver thread. It is sometimes

made of crimson floss silk, with a claret hackle over it. The wings are of equal parts, but not many fibres, of the dark brown speckled feather off a mallard's back, and the light brown speckled feather of the shovel duck, from the side of the body, under and below the wing; and mixed with these, and left rather longer, are six fibres from the bright yellowish green parroqueet's wing. Then over the wings comes a dark mottled feather from about the shoulder of the grouse's wing, which we call a grouse hackle, because generally worked up (and as you see this is) as cock's hackles are, namely, by being wound or hackled round the shank of the hook. Three or four turns of a black ostrich hurl for the head, completes the fly.

The third affords a good lesson of the advantages of industry and foresight; which, if neglected in this instance, would have caused me to reverse the reason for my regrets, and to have petitioned the Emperor of the Salmon in this river for the restoration of the fly, without a care about the punishment of the fish that took it; I would then willingly have compounded the felony, in defiance of the laws and statutes of this realm in that case made and provided, as those skilful fishers of men, lawyers, would have it. But having completed half the circle of digression, let me tell you that it is a good fly, a favourite fly, and a successful fly, made after the

pattern of one rather prized by "the greatest sculptor in Europe," who took salmon with it below this town, in just such water as there is at present, when no one else could stir a fin. But you saw its powers, though my unskilfulness counteracted them. Very fortunately, just before starting off to meet you yesterday afternoon, I made this, its fac-simile, in order not to lose so valuable a pattern. Now having completed the "aforesaid" circle, let me tell you, that after the four turns of silver thread under and below it, the tail is composed of three fibres of the yellow spreading back feather of the golden pheasant; the body is of light red-brown mohair, left rough, with silver thread wound up it; and over this, *all the way*, comes a Marlow buzz hackle; that is, a red-hackle, with a black stripe up the stem, and the fibres tipped with black. The wings are, first a mixture of plain dark speckled guinea fowl's back feather, with an equal quantity of the same feather dyed maroon; over these, and extending rather beyond them, comes about the same proportion of dark speckled mallard, such as I have just mentioned; for horns projecting still further, and towards the tail, are four fibres of the dark (not brown) speckled mallard's feather from the side of the body under the wing, dyed a bright yellow; and three turns of a maroon dyed ostrich hurl make the head.

But I must not forget its great advantage on the pool we have been fishing, namely, its size. This hook, you see, and the one I lost was the same, is about thirteen-sixteenths long: though I should mention that the pattern belonging to Sir Francis was not more than twelve-sixteenths long, and that the body was of a similar coloured floss silk. But what are you laughing at?

Herb.—Only at seeing you so particular to a hair's breadth.

Theoph.—It's well to laugh, but I have no other way of conveying my notion of the sizes of hooks to you. Every maker has his sizes numbered or lettered according to his fancy; but as all makers differ from each other in their numbers, or particular distinguishing characters, none of which convey any definite idea of size, except from occular demonstration, and as I do not learn that the statute books contain any act of parliament which assimilates and equalizes their measures, how else, in the name of goodness, can I make you comprehend what is a small hook, and what a large one? I do not approve of recipes ordering "a little" of this, a "dash" of that, and so forth; you will, however, only find a difference of one inch seven-sixteenths between the largest salmon, and the smallest trout hook; and if a quarter of an inch can be said to make such a difference in a man's nose, surely a sixteenth is

to be regarded in a hook which is to be applied to a fish's eye and mouth. But in order that I may not puzzle you so often by "sixteenths," and henceforth to subdue that derisive cachinating curl of your lips, you may at once note down the following scale which I adopt for hooks, measuring from the shank end to the extremity of the bend.

Theophilus South's Scale of Hooks.

		Inch.	16ths.			Inch.	16ths.
1	Measures..	1	15	8	Measures..	0	11
2	.....	1	10	9	.....	0	10
3	.....	1	7	10	.....	0	9
4	.....	1	5	11	.....	0	8
5	.....	1	4	12	.....	0	7
6	.....	0	15	13	.....	0	6
7	.....	0	12	Midge	.....	0	5

In order to compare my scale with others, note down also the following :—

Sell's			*O'Shaughnessey's.*			*Phillips'.*	
SALMON.			SALMON.			SALMON.	
No.	in.	16th	No.	in.	16ths.	No.	in. 16ths.
1 measures	2	12	1 measures	2	4		
2	2	10	2	1	15		
3	2	5	3	1	13		
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3	1	4	3	0	15	CC	0 14
4	0	15	4	0	14	C	0 12

TROUT.			TROUT.			TROUT.		
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6	.....	0 ⅝	6	.....	0			
7	.....	0	7	.....	0 ⅝			
8	midge	0 5	8	.....	0			
			9	midge	0 5			

Let me observe, that as you grow older in this art, you will find that much of your success depends on the size of the fly you make use of. This you must, whether in search of trout or salmon, vary according to the weather, the general height of the river, and the nature and depth of the particular spots where you throw. For instance, for salmon in shallow clear water, (say about six foot, and under eight), and in sunshiny weather (by which, I mean, when the sky is clear, and the sun only occasionally bursting from behind passing clouds)—and the stream moderately swift, I should use a very small fly, for instance, my No. 8, and according to the increase in rapidity of the same depth, I should enlarge the fly to the No. 6 size. If again, the weather were dull, and the sky completely clouded, I should fish the same water with hooks a size larger, namely, from No. 7, to No. 5. But if the same depth were coloured after rain, and the sky bright, I should advance still another size,

beginning by No. 6, and ending with No. 4.—and in dull weather, use No. 5, to No. 3. Adhering to the same principles of calculation, in water of eight feet deep, and under ten, I should begin with No. 6, and finish with No. 3, and so according to the increase of depth, I should put on flies larger in the same degree, advancing one number for every two feet of water. But the largest I should ever think it necessary to use on this river, is No. 1, whatever may be the state of the water.

Herb.—I have been given to understand that on some of the Scotch and Irish rivers they are in the habit of always using flies much larger, and as far as I can carry the sizes I have usually seen for those rivers in my memory, there appears to be none under the largest of those you advise to be used here. Why should this great difference exist?

Theoph.—I think you judge of the fact more from those which fishing-tackle shops exhibit, than from examining the collection of an expert salmon fisher who ties his own. In Ireland, and in Scotland, wise men, occasionally, and in the former place for the most part, use flies quite as small as those I recommend. You will observe, that in some places nothing under five pounds, and in others under seven pounds, is denominated a salmon. But the rivers there are, many of them, of a greater depth and of a bolder cha-

racter, and the fish in proportion average larger; and there, perhaps, anglers would never think of using any hook less than my number 2 or 3, while here, and on other rivers less bold, four or five pounds is called a salmon, and the general average weight of those taken does not exceed ten or twelve pounds, though a few are caught in each season of five and twenty pounds and upwards. But you may be sure that the few who pay attention to the matter study the size of the hook they shall put on, and are much more successful than those who have but one size, and that a large one. Many, perhaps, are accustomed to fish only in one place; they occasionally meet with success in deeps with their monster fly, and then, without thinking about the matter, extol nothing but large ones, and have no faith in waters from five or six foot depth, which they call shallows. Perhaps, however, I do wrong in giving you an impression that it is only the unthinking who declare in favour of large hooks. One or two first-rate, and really scientific fishers of my acquaintance, let me tell you, are partially of that school. I say "partially," because though generally preferring large to small, they qualify their partiality by this saying, namely, "Large hooks catch large fish;" which, to a certain extent, is indisputably true, because large fish, especially trout, generally lie in deep water,

where, as I told you, you should invariably adopt a larger hook. For my own part, I would rather be under than over the mark, and certainly think that smaller hooks are much more generally successful, even for moderately big fish, than large ones, while it is very certain that the latter do not take small fish. And I can also assure you that in a day's fishing, in company with an expert hand, who has differed from me upon this point, with my small flies I have taken three large fish to his one, or, which is a stronger proof, in one instance, two large, and three or four small ones to his nothing; and that, although his skill was equal, if not superior, to mine. And it is by no means uncommon in low bright water, to take salmon from six to nine pounds with trout flies, upon hooks as small as my No. 10. At the same time I may tell you that I know of no person taking to himself credit for any science upon the subject, who asserts that large flies are of any avail, either for trout or salmon, on shallow streams.

Herb.—I have often heard, that it is an universally acknowledged rule that a larger fly should be used very early in the morning, or late in the evening. If you accede to this, may I ask for what reasons?

Theoph.—I will tell you. When a fish rises, he is more or less on the feed, as we suppose, and

perhaps at the moment when your fly engages his observation, he is already half-glutted with other food. But supposing him to be commencing his meal, then, if we can judge by our own appetites, let me ask you, if when you sat down to dinner, three mutton cutlets *en masse* were upon your plate at once, would you not be less likely to get through them than if they came before you one by one? And might not a fish for the same reason prefer many small morsels to one large? It seems to me that they are not so gross in their habits of feeding as many animals. They do not, like a boa-constrictor, "swallow an ox," and then lie gorged and torpid for a length of time. But if you examine a trout's stomach (except in the May-fly season) you will find him full of innumerable small flies, with scarce one large one, though the larger sorts are in abundance upon the water. I myself have taken trout with myriads of what we fishermen denominate the black gnat in their stomachs and throats, though the air has swarmed with larger flies, such as the alder, and March brown, and cinnamon, on a dozen of which, with infinite less labour, he might have contrived to make as hearty a meal. This cannot proceed from the mere superiority of taste and flavour which one fly may possess over another, even admitting that fish have the sense of taste, which has been doubted by Mr.

Ronalds, especially as we know that those three large flies, which I have just mentioned, are especial favourites of the trout, and it must be, that they prefer small morsels to large, although collecting the former must entail so much greater pains and trouble.

Herb.—This is clearly proved in bottom fishing. A moderately small piece of paste being more successful than a larger one, and a smaller worm of the same sort producing the same result.

Theoph.—You are quite correct, according to my experience. Again, if we may compare them with man, do we prefer large mouthfuls to those of moderate dimensions? Certainly not; not only because education teaches us that it is a vulgar habit, but for the reason, that there is more trouble in their mastication, as well as in swallowing them. And it must be remembered that we masticate, while the fish swallows whole that which he puts into his mouth. I therefore think it probable that a fish would prefer the trouble of collecting several small *morceaux* to the chance of one large one sticking in his gullet, and chokeing him. And thus *probatum est q. e. d.*, viz. that large flies attract attention, while smaller ones take the fish. In trolling for pike, a large bait often induces a fish to seize it, and it is well to use such, if you are fishing with a snap; yet if

you use a gorge, though the large bait be seized, it is ten to one but that he leaves it without an attempt to pouch it, unless he be strong on feed; though there is no doubt his throat would be capacious enough for the purpose, had he been inclined to make the experiment. A fish often seizes a passing prey, merely, as it seems to me, by way of a punishment for its audacity in approaching too near. You often see fish take things into their mouths, and then instantly eject them, though the next hour they would seize and swallow the same in nature and substance. Yet it is only when much pressed with hunger that they attempt to swallow a bait large in proportion to their own size. I certainly was once trolling with a gorge for pike, with a good sized gudgeon, when I saw a perch not longer than nine inches, and not twice the length of the bait, seize it. She (for I found it to be a female full of spawn, and nearly as deep as long) ran with it in shore, and I, thinking it impossible that she would attempt to swallow it, sang out for the landing net to entrap her with it at once from among the rushes beneath me. This I and my companion did, and when we got her out, I was indeed surprised to find that she had attempted to swallow it, and was fairly hooked, but necessarily "stuck at the tail." Yet I am satisfied she must have been driven by hunger to commit such

a daring atrocity. Pike are found occasionally gorged and half choked with one of their own species, not much less in size, in their throats; though this again is only in ponds where food is scarce, and therefore they are urged on by the old adage, that "hunger has no law." And you may depend, that these are unnatural feats on the part of fish. Give me, therefore, small flies in preference to large all the world over, whether for trout or for salmon.

Herb.—Why, then, let me ask you, do you recommend any variation in the sizes of flies, according to the different depths and degrees of the clearness of the water?

Theoph.—Simply upon the principle of exciting attention. That which he would discern plainly from the bottom of four feet of water cannot be so perceptible at a distance of twelve feet, and, for the same reason, the faculty of vision is less perfect in muddy, than in clear water, or in cloudy than in clear weather; and, therefore, you must use a larger fly. Such have long been my notions upon this subject, and though I am willing to change them for better, considerable experience has not afforded any inducement to forego them. You will, of course, understand me as using the terms large hooks and large flies synonymously; since you must always apportion the quantity of material in the one to the size of

the other. And do not forget the hint I dropped just now, that larger flies should be used early in morning and late at night, than in mid-day; simply, because they are then less easily seen. That's a mighty great reason! you'll say; yet it it is little known or thought of, as the reason why a fire burns better and brighter from poking. So much for the sizes of hooks and flies.

Herb.—You have not yet described the fly I have on, and with which we killed the last fish at the Quay-stream pool.

Theoph.—You mean Antiquarius's fly. It has, you see, an apple-green silk body, a golden pheasant's crest feather, and a few fibres of scarlet ibis left shorter for the tail; below which, and wound up the body, is middling-sized gold thread. Close under the wings is wound a claret-coloured hackle; and the wings are composed, the major part, of dark-brown speckled mallard; the rest of a few strands of dark striped turkey feather, and on each side are two bright blue king-fisher's feathers; and the hook is about my size No. 5. But see another, the choicest fly in my collection for this state of water. It is "*Evans's fly;*" and, like a provident man, I reserved it for the last, in the assurance, that though the others had failed, this would have served me well if anything would have stirred a fish to day. Its size is as small as my No. 6, or even No. 7. Mulberry

floss-silk body, golden pheasant's crest tail, under which are several turns of the thinnest silver wire, and some turns of the floss-silk; the silver wire is then carried over the body spirally; close under the wings is wound a small dark partridge hackle. The wings are of—First, brown speckled mallard: second, about a dozen fibres, from the golden pheasant's ruff; Third, three or four fibres of bright green paraqueet, and above them are about a dozen strands of dark mottled, or rather striped turkey. Above the wing is hackled either a striped blue jay's wing feather, or a marlow-buz hen's hackle*, which is perhaps preferable, and then a heading of ostrich hurl completes the fly. I shall try this myself by and bye, and I know I shall succeed with it, if the fish continue on the move.

Enter Messenger with a Letter.

Herb.—Theophilus, what means this pallid tremor—this suddenly anxious visage?

Theoph.—My friend, instantly we part. How unexpectedly. Little indeed do we know what a day may bring forth. I must leave you, and not only you, but dear Old England, at the same time. The call, imperative, admits of no delay. I must depart at once. Farewell, my pupil. If I

* Similar to the Marlow-buz hackle mentioned ante; but taken from off the hen's neck.

have helped you ought in our loved art, improve my precepts, and when at any future moment of success, remembrance bids you own my influence, think of me, as of one, who exiled far from old associations and old friends, seeking a new home in a distant clime, breathes ardent prayers for his loved country's welfare, and leaves his heart still with his native land.

Herb.—God speed you—and

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