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PRESENTED BY PROF. CHARLES A. KOFOID AND MRS. PRUDENCE W. KOFOID
TO ANGLERS.

As a means of furthering the intention of this work, the author undertakes to supply EVERY ARTICLE REQUIRED BY THE FLY-FISHER, manufactured under his immediate superintendence by experienced PRACTICAL ANGLERS.

The author is naturally anxious for the extension of those principles of the art which he advocates, because he believes them to be true; and, in justice to himself, he desires that they may be fully and fairly tested by those who are inclined to adopt them. This can be done only by following implicitly the various instructions contained in the volume, including, of course, those relating to the MANUFACTURE of the different implements required. It is easy to believe that in this department the most minute description must necessarily be inferior, as an exemplification of principles, to the BONA FIDE articles themselves; for it will be admitted that the difference between articles which are really good and useful and those which are worse than useless, is very difficult to be discovered, on mere inspection, by the most experienced angler, and is obviously quite impossible to be discovered by the tyro.

The author has therefore come to the determination of devoting his constant personal attention to the manufacture of the various piscatorial implements, of which the prices will be found moderate and the quality and adaptation unexceptionable.

From the list of articles may be enumerated Rods, Lines, Reels, Collars, and Artificial Flies, to which the greatest care and attention are bestowed. Also, Gut, Hooks, Panniers, Landing Nets, &c. Flies of other kinds than those recommended in this work are also made by the author, on order, from written directions or from patterns.

Orders to any amount sent, carefully packed, on receipt of Post Office Orders, payable to Mr. PHILIP PULMAN, Axminster, or to Mr. GEORGE P. R. PULMAN, Crewkerne, to either of whom orders for goods may be addressed.
THE VADE-MECUM OF FLY-FISHING FOR TROUT:

BEING
A COMPLETE PRACTICAL TREATISE ON THAT BRANCH OF THE ART OF ANGLING;

WITH
PLAIN AND COPIOUS INSTRUCTIONS FOR
THE MANUFACTURE OF ARTIFICIAL FLIES.

ILLUSTRATED BY NUMEROUS ENGRAVINGS.

BY G. P. R. PULMAN,
AUTHOR OF
"RUSTIC SKETCHES," "THE BOOK OF THE AXE," ETC.

"The most important principle, perhaps, in life, is to have a pursuit, — a useful one if possible, and at all events an innocent one. Though I do not expect, like our arch-patriarch Walton, to number ninety years and past, yet I hope, as long as I can enjoy, in a vernal day, the warmth and heat of the sunshine, still to haunt the streams."

SIR H. DAVY.

THIRD EDITION, RE-WRITTEN AND GREATLY ENLARGED.

LONDON:
LONGMAN, BROWN, GREEN, AND LONGMANS.
1851.
LONDON:
Spottiswoodes and Shaw,
New-street-Square.
DEDICATION.

To whom can I more appropriately dedicate this little literary effort than to my parents?

My mother's earliest lessons inculcated a love of Nature along with a love of Virtue and of my fellow-men.

My father first introduced me to the green fields of my native valley, and on the lovely banks of the stream which meanders there so musically, initiated me into the mysteries of "the gentle art;" and thus, in actual contact with Nature's beauties, assisted to develop the germs of admiration of those beauties which my mother's lessons had implanted.

A 2
Much of my subsequent happiness has been derived from those early impressions and instructions.

To you, then, my dear father and mother, I dedicate this little work; and I hope that you will not consider so insignificant an offering as the literal index to the amount of gratitude and respect which is, and always has been, entertained for you by

Your truly affectionate Son.
PREFACE.

The present edition may be considered as an entirely new work, so extensive are the additions and so altered is its style of publication. This will at once be evident to every one who compares it with the previous editions.

A considerable sale for the work in its former shape—a mere outline of the present edition—encouraged the hope that a more extensive and complete treatment of the subject, on the foundation already laid, might more deserve the approbation of the angling public. The writer therefore determined to make the attempt, by entirely re-writing the original, and by supplying such new matter as he thought likely to be interesting and useful. In the following pages, therefore, the instructions for making artificial flies, and the illustrations by which they are accompanied, will, perhaps, be recognised as the most promi-
The subject of fly-making is hardly alluded to in the former editions; and as the writer was of opinion that the instructions in many other works are not so complete as to render such an addition uncalled for, he was the more anxious to supply the omission. The defect in other works, it was imagined, might arise from the infrequent association, in sporting authors, of a practical knowledge of fishing with that of the manufacture of those beautiful baits, and also with the ability to furnish really efficient drawings in illustration of their instructions. The writer of this work is not only a practical fly-maker himself, but has been so fortunate as to obtain the assistance of an artist who is also a practical fly-maker and an accomplished angler. It is hoped, therefore, that whatever is found deficient in the letter-press instructions will be counterbalanced by the excellence of this gentleman's illustrations.

The work has received other very extensive additions, which it is hoped will be considered as improvements also. Among them is the Introductory Chapter, in which an idea of the pleasures
of fly-fishing is attempted to be conveyed; and they will be found also in the chapter which treats of the history of the trout, particularly with reference to the remarks on some disputed points in the nature and habits of the migratory *Salmonidae*; in the arrangement of the list of flies; in the enumeration of the materials required for fly-making; and, in short, in the remaining chapters, which treat of the practical department of this delightful and thoroughly English recreation.

The writer trusts that his little book, in its present altered shape, will not be without interest and use to his "brethren of the angle," and that it will be received with an indulgence for which an enthusiastic love of the art, and an earnest desire for the diffusion of its precepts, that others may enjoy its pleasures also, are claims that will not be totally disregarded.

*Axminster, Nov. 1850.*
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CHAPTER I.

INTRODUCTORY.

"My good scholar, we may say of angling as Dr. Boteler said of strawberries, 'Doubtless God could have made a better berry, but doubtless God never did;' and so, if I might be judge, God never did make a more calm, quiet, innocent recreation than angling." — IZAAC WALTON.

GLORIOUS old Izaac! What delightful thoughts — what poetical imaginings — the bare mention of thy name evokes! They come fresh and uncontaminated from the pure fountains of nature — as if haloed with cowslip garlands, bespangled with the blue-bell and the water-lily — stealing along amid the murmur of the summer stream, the hum of insects, and the song of birds!
What more can be said in praise of angling than that which the good and quaint old father of anglers has so charmingly discoursed? What more delightful picture of an angler's life and pleasures — of the scenes 'mid which he wanders, and the poetry which shines in his heart and illumines the mental atmosphere in which he lives — can be presented than that which Walton has bequeathed to us in the delightful book which he designed as "a picture of his own disposition," and which is described as having "hardly its fellow in any of the modern languages?" Who, on reading, or recalling to his recollection, the beautiful scenes and dialogues in that exquisite production, will not fancy himself the delighted companion of Piscator, Auceps, and Venator? — will not be carried away for a while from the stern realities and corroding cares of the world, to the quietude and poetry of nature — to the flower-spread banks of a lovely river in some sequestered vale embosomed by its tree-clad hills? —will not feast, in imagination, upon the glorious and ever-varying scenes through which an angler roams, and taste the indescribable enjoyment which is peculiar to his fascinating pastime?

"God never did make a more calm, quiet, innocent recreation than angling," — let cavillers
and those who have no acquaintance or sympathy with rural recreations say what they will to the contrary. It delights, by bringing its votaries into direct and intimate communication with nature in her loveliest guise; it instructs, by compelling them, if they would pursue the art successfully, to acquire a knowledge of some of her most interesting productions; it soothes and elevates, by the habits of "calm, quiet, and innocent" contemplation which it induces; it interests, by the triumph which skill and perseverance enable them to effect in the capture of shy and cunning creatures by elegant and scientific means — by art and reason over instinct; and it invigorates, mentally and physically, by the active exercise which it demands, and by the agreeable excitement which it produces.

"That undervaluer of money, Sir Henry Wotton, the late provost of Eton College — a man," says Walton, "whose very approbation of the art ought to be enough to convince any modest censurer of it," was wont to say of angling that it was "an employment for his idle time, which was not then idly spent; for it was, after tedious study, a rest to his mind, a cheerer of his spirits, a diverter of sadness, a calmer of unquiet thoughts, a moderator of passions, a pro-
cure of contentedness; and that it begat habits of peace and patience in all who professed and practised it."

It is universally admitted, that of the different branches of angling the most scientific and interesting is that on which this unaspiring treatise is written. In preference to any special enumeration of its claims to that distinction, we shall endeavour to convey an idea of their nature, and at the same time of the attractions of this delightful art, in an off-hand sketch of a day's fly-fishing on one of the most celebrated streams of "the west countrie;" and this perhaps will prove a not unfitting introduction to our more dry, but we hope not useless, chapters.

Down far, far into one of the most picturesque parts of the country — away from the bustle and gaiety of city life—is nestled a quiet and secluded valley, through which a clear and dancing stream pursues its devious way, and on every side diffuses health and freshness. This valley is enclosed and sheltered by ranges of high hills which the hand of Cultivation (the arch-enemy of landscape beauty) has not yet quite denuded of their wood, although its approach is everywhere manifest. Among them, branching away in different directions, are snug little combs into which the eye
can penetrate to the dimmest distance, and trace among their windings the glistening brook which each contributes to the larger stream; while downwards, at the valley's mouth, washing the craggy cliffs with which the boundary hills terminate, is seen the broad bosom of "the deep and dark blue ocean," into which the waters of the valley-stream are poured.

It is a fine, fresh, April morning. The valley was full of mist when the sun peeped over the eastern hill; but it soon gradually dispersed, like the rolling aside of a vast filmy curtain, and allowed the early beams to twinkle in the myriad dewdrops on blade and spray, while a chorus of nature's music sent up a joyful welcome from a thousand feathered throats; and even the surface of the glittering stream, in quiet nooks under sheltered banks and overhanging bushes, was occasionally broken by the rising of some hungry trout at the grannams and hare's flaxes which were thus early called into existence. But as the morning advanced, a southerly breeze sprang up, and sundry clouds appeared in the horizon, gradually overcasting the entire sky, and betokening a favourable day for the sport.

The hour is now nine, and three anglers may be imagined wending their way along a pleasant
road, leading from a certain town, which still lies buried in the mist and smoke behind them, to a tributary of the main river, a mile or so distant. This they mean to fish down to its mouth (for the distance is short), and afterwards continue fishing the main stream downwards, as far as their inclination may lead them. No solitary, selfish anglers are they, as is manifest by their going in company, and by the presence of a couple of canine favourites, who are evidently accustomed to the sport, for they partake of their masters' excitement, and withal are admirably "behaved." Our anglers are well caparisoned, without being encumbered. No superfluous landing-nets, huge books, and other gear, which usually betoken "the pretender," can be found on them. They have only necessaries. Their rods and baskets are the only outward and visible signs of their craft, and small side pockets suffice to contain their stores of "glittering glories." You can see at a glance that they are worthy disciples of our patriarch,—evidently "slaughterers" of the first degree,—and enthusiastic, from the gusto with which they relate and listen to old exploits, and anxiously and joyously trudge on.

At last they arrive at their ground. Their tackle is very soon arranged; and now they are
hard at work,—taking stickles by turns, and bending with intense interest over their flies, which play so scientifically upon the dancing stream. What a splendid fish was that which came at the red-palmer of the angler lowest down, but missed it! And what a shout from one of the others, announcing a half-pounder almost at the first cast—fairly killed and basketed! While whiz goes the reel of the third piscator, whose eagerness in striking too smartly has cost him a splendid Limerick, which has found a lodgment in the mouth of the "little peel" that carried it off so cavalierly.

Thus they "angle, angle on;" now raising fish which, somehow or other, do not "take home;" then hooking a monster which bends the rod like a bow, and straightway escapes after a nimble summerset in the air; and ever and anon landing a speckled beauty, the red, blue, golden, silvery tints of which commingle so delightfully with the rich green sward on which it lies panting under the admiring gaze of its captor.

Three hours have now elapsed since our friends first wetted their lines. They have fished over a couple of miles of first-rate ground, and called a halt under that spreading oak by the side of the
little rivulet which here ripples itself into the main stream. Two of the party are already at the place of rendezvous, earnestly discussing the events of the morning, and giving an occasional salute to the third, who is detained below with a salmon (only a six-pounder, as it is afterwards found), which has held him in check for the last half-hour. He approaches at last, however, bearing his prize across his shoulder,—a trophy more valued by him than any ever gained by valiant knight in bloody fray; and the conversation is instantly of a most animated description. Soon, however, there is a general turn out of pockets, and a spread is laid upon the turf of sandwiches, cold fowl, and so forth, together with "pocket-pistols" duly charged, and one of the party gathers in the rivulet aforesaid a heap of water cress, green and fresh, and very tempting to behold. So they seat themselves forthwith, and do justice to the viands in the way that anglers understand so well, for they eat with "Spartan sauce."

And now they have time to look about them, and to admire the beauties of Nature by which they are surrounded. The trees have lately burst into leaf; the flowers of various hues are springing up around them everywhere, scenting the air
with their perfume; and the music of the birds, and the hum of insects, mingle with the bubblings of the stream which flows rejoicingly at their feet. Upwards, their view ranges through the tree-filled valley, catching glimpses of the shining stream, and here and there of the gable of some snugly nestled farmhouse, from the chimneys of which—those "windpipes of hospitality"—the blue smoke wreathes so gracefully; and also of old village towers, among their clusters of thatched cottages. Ranging still wider, over fields of every hue, and away among the undulating hills, is their own distant town, thrown prominently out by a gleam of sunshine which now happens to rest upon its slated roofs. Parallel to this, on the opposite hill-side, are seen other objects which add a charm to the landscape—some 'squire's seat, perhaps, surrounded by its park and groves; and, far beyond, is the extreme distance, where the hills look blue and undefined, and seem to melt into the cloudy sky. At their back, on the highest point of the range of hills which bounds the valley in that direction, are the remains of an ancient British fortification, which furnish them with matter for instructive conversation about remote and savage times. On the slope between them and this old fortress
is a pleasant village, in which a white, flaunting "great-house" is sufficiently conspicuous to assure them of its modern date. This they naturally contrast with the architecture of a more mediaeval age, of which the remains of an interesting specimen are visible at their right. Opposite them is an opening in the hills, half shrouded by elms and by another pleasant village embosomed in orchards, at the mouth of a little green and wooded comb which hides itself snugly in the windings of the hills behind, where a limpid streamlet trickles. Downwards, the valley greatly widens, for scarcely a league below them is the pebbly strand on which the rolling waves are tossed by the southern breeze which plays so balmily.

"God made the country and man made the town!" they are in the act of exclaiming, when their admiration is abruptly interrupted by the rapid "yap, yap!" of "Tip," who, with her companion, has for some time been industriously "trying" the wooded rivulet. Our anglers hasten to the spot whence the sounds proceed, and a hunt ensues, which terminates in the death of a moorhen, admirably "found" by the canine favourites, and perhaps half frightened into their jaws by the almost frantic shoutings of the bipeds.
A DAY'S FLY-FISHING.

But "revenons à nous moutons" is at length the word; and the trio, after arranging for the final "wind-up," resume their rods, and fall to fishing down the stream.  *

It is evening. The sun, before bidding adieu for the night, and as if to compensate in some measure for hiding himself during the day, peeped from under his nubial canopy just as he touched the western hill, and lighting up the heavens with a crimson glow, like mingled gold and roses, sank gently down to "ope the gates of day" in another hemisphere, leaving the glorious traces of his departure to mingle with the twilight here. Our angling friends have at last suspended operations. Their rods and tackle are soon snugly packed. The return of killed and basketed has been duly made, and amounts, in the aggregate, to the small salmon aforesaid, two brace of peel (certainly not in the finest season), two and thirty trout, and a dace. Of course they are delighted with the day's adventures, and a consultation is forthwith held, which results in the adjournment to a neighbouring hostelrie which stands in high repute with all the local craftsmen, the landlord being a "brother of the angle." As they are at least four miles from home, and have had a hard day's fag, the strengthening and re-
freshing of "the inner man," with steaks and accompaniments, is decided on and at once commenced. Two or three other craftsmen also happen in for the same laudable purpose. And here we leave the happy party to their evening's enjoyment. Each one, we may be sure, relates his day's exploits; and, when this is over, old tales are pretty sure to be told, and old times thus brought to mind; till, by and by, the "minstrel" of the party strikes up a song, which after a while goes duly round,—or else, as Walton hath it, "some harmless sport is found to content them;" and thus they "pass away a little time without offence to God, or injury to man."
CHAPTER II.

"The trout is a very generous fish; a fish that is highly valued, both in this and foreign nations."—Walton.

It must be obvious that in every branch of sporting some acquaintance with the haunts and habits of the animals pursued is indispensable to successful practice. Many a man who may be perfectly au fait in all that concerns the mechanical department of his sport, but who fancies that it is only his ill luck which prevents him from being so fortunate as others, whose powers of observation are more active than his own, and who are better informed than himself in the theory which he affects to despise, would doubtless be able to find a more correct and rational cause for his inferiority in his imperfect information on these subjects. To be sure, it is hardly possible for the most indifferent observer to pursue any sport for a length of time without insensibly acquiring some knowledge of the nature and habits of his game; but there is an immense difference in the amount of information which different individuals
will acquire in parallel circumstances, arising, of course, from the difference in their mental qualifications. It is not intended, in these remarks, to lay down the principle that the best naturalist is, à priori, the best sportsman; although we should not shrink from maintaining that a good naturalist, or even an indifferent one, is already three-fourths a sportsman, inasmuch as he possesses a considerable share of a sportsman's necessary education,—a taste for out-of-door recreation, and consequent aptitude for acquiring practical sporting knowledge. Professor Rennie, a distinguished naturalist and an enthusiastic angler, is very probably also of this opinion; for he tells us that "the chief knowledge required by a skilful angler is the thorough acquaintance with the food and habits of the fish he wishes to catch." With these views of the importance of this subject, we shall direct our attention to it before proceeding to the practical department of this delightful art.

Of the numerous tribes of fishes which inhabit the streams of Britain, the trout is the handsomest, the best, and the most sought after by the fly-fisher. It belongs to the genus Salmo, which is included in the Cuvierian order Malacopterygii abdominales. This order embraces all
those fish which have soft-rayed fins, with their ventral fins placed far behind and unattached to the bone of the shoulder. All the Salmonidae have eight fins, namely, two pectoral or breast fins; two ventral fins, on the belly next below the pectorals; the anal fin, behind the ventral fins; the caudal or tail fin; and two dorsal or back fins,—the hindmost small, fleshy, and without rays.

Although the trout in different localities vary considerably both in appearance and quality, it is by no means a solitary opinion that there exists but one species; the difference of form, size, and colour in the trout of different localities being accounted for by the operation of their food and of the water they inhabit. Some naturalists, however, think—and among them is Mr. Yarrell—that more than one species, and that several varieties, of the common trout, exist in this country; and supposing those gentlemen to classify the lake trout and the gillaroo trout of Ireland* in this latter category, they are, perhaps, suffi-

* A remarkable peculiarity of the gillaroo trout is the construction of its stomach, which has been likened to the gizzard of a bird, and accounted for from the circumstance of the principal food of this fish being shell-fish, for the constant assimilation of which its stomach has thus become permanently adapted.
ciently correct; although it is by no means made clear that even those varieties may not have been derived from the common trout, altered by circumstances and characterised by peculiarities transmitted through a succession of generations,—but not the less varieties on that account.* As to species, there can be no doubt that whatever may be the case with naturalists, the unlearned are certainly apt to multiply them, either from an imperfect comprehension of the term, or from being deceived by the external appearance and colours of the fish, from which a hasty opinion ought not to be formed. "The colouring matter," says Sir Humphrey Davy, "is not in the scales, but in the surface of the skin immediately beneath them, and is probably a secretion easily affected by the health of the animal." The soil, the season, and the water undoubtedly exercise considerable influence on the colours of fish, and that the food does so has been satisfactorily proved by an experiment made some years since in the south of England, and thus recorded by Mr. Stoddart:—"Trout were placed in three separate tanks, one of which was supplied daily with worms, another with live minnows, and the

* See Salmonia, pp. 65—72.; also, Combe's Constitution of Man; and the Vestiges of Creation.
third with those small dark-coloured water-flies which are to be found moving about on the surface, under banks and sheltered places. The trout fed with worms grew slowly and had a lean appearance; those nourished on minnows, which, it was observed, they darted at with great voracity, became much larger; while such as were fattened upon flies only, attained, in a short time, prodigious dimensions, weighing twice as much as both the others together, although the quantity of food swallowed by them was in no wise so great.” * Whatever may be the fact, we are certainly inclined to think, from all that has been advanced by naturalists, that opinions as to different species and varieties should only be formed upon the surest grounds, and should not be received without the greatest caution. What can be said of the opinion of ordinary folks, when even a professed naturalist tells us that “the various names of common trout, sea trout, and salmon trout apply only to differences arising from age, sex, season, the character of the water, and the sorts of food which they can procure.” With due deference to this learned authority, we will remark that the names of sea trout and salmon trout are

* Scottish Angler, p. 79. 2nd edit.
undoubtedly synonymous, and apply to a well-known and recognised species of the *migratory salmonidae*, but one entirely distinct from *salmo fario*, the common trout, which, unlike the sea or salmon trout, never changes its abode from the fresh water.

The size of river trout, which, in a general sense, is characteristic of neither species nor variety, varies considerably in different localities and under different circumstances. In brooks the trout of the largest size are seldom above six ounces, while in rivers favourable to their growth, and protected from poachers, they often reach as many pounds. The Thames, among other streams, often produces gigantic specimens—as large as twelve and fourteen pounds; and in many of the rivers of Hampshire, Wilts, and Dorset, they are often taken of five or six pounds. Occasionally the capture of some veritable monster becomes the subject of record, as, for instance, a specimen taken in 1824 in the river Clist, near Topsham, Devon, by a Mr. Hall of that town, which measured thirty-four inches in length and twenty in girth, and weighed more than twenty-three pounds. We have seen an engraving of this portly individual, which, if faithfully represented, must have been a splendid specimen. Many other Brobdig-
nagian trout have been chronicled in works on natural history. Mr. Yarrell describes one of twenty-five pounds "that was captured on the 11th of January, 1822, in a little stream ten feet wide, branching from the Avon, at the back of Castle Street, Salisbury." It is, however, by no means clear to us that these extraordinary specimens were all really common trout, for the evidence is doubtful in some cases, owing to the uncertainty about the ability of their captors to distinguish between the large migratory and other species. But an instance has come under our own knowledge which cannot admit of dispute, for the water in which were captured the specimens of which we shall speak is miles from the sea, and has not the slightest communication with it through any of its numerous feeders. We refer to the reservoir of the canal at Chard, in Somersetshire, a piece of water covering some seventy acres, in which common trout weighing six and eight pounds were taken with the net within two years after its construction; and one was found dead on the bank, about the same period, which weighed more than a dozen pounds. These fish must have been supplied from the neighbouring tributary brooks, in which a trout above six inches long is perhaps never seen; and they afford additional
proof—if such were wanting—of the physical peculiarity of fish, the growth of which, under favourable circumstances, has no limit, and is of marvellous rapidity. Not only so, but perhaps they throw some light upon the formation of species and varieties, by showing the probability of the Great Lake Trout, which sometimes reaches thirty or forty pounds, being traceable to an equally humble ancestry—increased in size, and altered in conformation by peculiar circumstances, and stamped at last with permanent characteristics, transmitted through successive generations.

But we must leave these extraordinary specimens, a further consideration of which would not only be foreign to our object, but be likely to convey to our inexperienced pupils a far too exalted idea of the kind of game they are likely to capture. Ordinary river trout seldom exceed two pounds, and a fish of half that size will be considered large when it is stated that the general weight is not above six or eight ounces. It may, perhaps, be laid down as a general law, that open and shallow streams, flowing over a poor soil, or having their origin in poor land, or peat, produce small and insipid trout; while deeper streams, in a rich soil, and shaded at intervals with marginal
wood, produce trout of a large size and high culinary character. The difference arises from the better shelter and greater abundance of food obtainable in streams of the latter description. It is not the close and bushy river, however, which forms the perfect trout stream—as the veriest tyro in fly-fishing can testify.

It is our most earnest wish to press upon the attention of our readers the short-sighted policy and unsportsmanlike practice of basketing unsizeable fish. It is surprising to what an extent this shameful practice prevails, even among men supposed to be accomplished in the art, and interested in pursuing it fairly. One very general excuse for the killing of small fish in many rivers is, that as they bear the distinguishing finger marks, they are therefore parr—a distinct species, say their captors, of dwarfish dimensions;—forgetting that the young of all, even the largest of the salmonidae (including, of course, the common trout), are always similarly marked.

But recent discoveries show that the parr itself occupies by no means so insignificant a place as has hitherto been assigned to it. So far from being of trifling value, from the supposed narrow limits of its utmost size, it has been ascertained, by careful observation and conclusive experiments
conducted by competent persons, to be nothing more nor less than the salmon itself in the infant stage of its existence. It is only within a very few years that this fact has been ascertained—or at least promulgated—and the honour of the discovery, by actual experiment, is due to Mr. Shaw, manager of the Duke of Buccleugh's salmon fisheries, in Scotland. This gentleman proves—and his statements in the main have been confirmed by the subsequent experiments of other qualified observers—that what is commonly called the parr is the salmon-fry in its first stage of growth;—that in this state, as a parr, it remains in the river in which it was hatched for a whole year;—that during the second year its outer covering of scales is moulted off, as it were, and reveals it in the character of the graveling, or smoult, which was formerly supposed to be the first stage of the salmon's life;—that when about two years old, being still in the dress of the smoult, and not above six inches long, it descends to the sea, and in the course of a few months or weeks re-enters the river as a grilse or salmon peal, weighing from two to five pounds—more or less according to the time it has passed in the salt water;—and that on its return from a second visit to the sea, after the lapse of another year, it becomes a veritable
salmo salar, the acknowledged "king of fresh-water fishes." Thus seems, at last, to be cleared up, to a great extent, the uncertainty which has hitherto been attached to the natural history of this princely fish. *

But it may be asked how it happens, if this theory be correct, that grilse or peal (that is, the

* It is the opinion of Mr. Andrew Young, an observer equally intelligent and favourably circumstanced with Mr. Shaw, that although the latter is right as regards the changes and successive stages of salmon development, yet he is mistaken in point of time; that instead of remaining in the parr and smoult state for two years before migrating to the sea for the first time, it really remains but one;—"in fact, that Mr. Shaw's calculations are wrong by one whole year; that there are no salmon-fry to be found in salmon rivers with transverse bars at the age of eighteen months (see Mr. Shaw's plates of young salmon); that they become smoults at the age of twelve months, and then migrate seawards, and not at the age of twenty-four months, according to Mr. Shaw's experimental theory." The error is accounted for by Mr. Shaw feeding the salmon ponds, in which he made his experiments, with spring or rivulet water, which being of a lower temperature than the waters of the Nith, from which he took the ova, caused a slower development of the infant fish. According to Mr. Young, the fish of course arrive at maturity much earlier than Mr. Shaw supposes, reaching the weight of six pounds, or thereabouts, at the age of eighteen months, instead of being then not that number of inches long, as stated by the latter. We have not the slightest doubt about the correctness of Mr. Young's opinion.
fish in an imperfect stage of its growth), are often taken of superior size to that of the salmon itself, and with generative functions maturely developed, as if a distinct species. In the Axe and other western streams, salmon, perfectly matured, are, to our knowledge, often taken under three or four pounds, while *peal* have been known (though rarely) to weigh as much as eleven pounds; and such, of course, is the case in other rivers. This, however, is accounted for by supposing the peal to have remained in the sea during their first visit, from some cause or other, for a longer time than was passed there by the smaller salmon during both their visits put together. Speaking of the Axe reminds us of what may perhaps be a remarkable circumstance connected with this fish—a circumstance which, although, perhaps, capable of satisfactory explanation in harmony with Mr. Shaw's opinions, seems at first sight to prove a difference of species between the salmon and what is locally denominated the peal—a difference religiously believed in by the local fishermen. We refer to the fact that in the little river Char, at Charmouth, a *salmon* is not known to have been ever taken, while *peal*, on the other hand, are abundant—or rather *were*, for, thanks to the industry of the poachers and the shameful neglect of those who
ought to be the protectors of so valuable a source of national wealth, this little river, like so many others of higher pretensions, is now almost depopulated of a once prolific breed of migratory fish. The peal which it produced were of every intermediate size, from ten ounces to as many pounds; but, as we have said, a true salmon is not known to have been ever captured in it. We obtain this information from an Axminster fisherman, who, with his father, fished this prolific stream for more than fifty years, during which period many thousands of fish must have been the reward of their indefatigable pursuit. The opinion of the local fishermen of the Axe is, that the parr, the pug-peal, the harvest-peal, and the salmon, are so many distinct species; and one circumstance on which they found that opinion, independently of shape, habits, and markings, is that of fully developed milt and roe being found in the smallest individuals of the three former kinds, in parr as small as two ounces—we mean not the fish in the graveling or smoult, but the parr state, or rather what is called the parr in the West, perhaps a different fish from Mr. Shaw's parr. Peal of less than a pound, we have often seen full of mature roe. Whatever may be the truth (and the subject deserves the most attentive investigation), there
can be no doubt that the parr and trout, at all events, are distinct species, though both, in their younger stages, are similarly distinguished with the blue marks on their sides, which are fancifully likened to impressions of the fingers. It must not be supposed that we presume to question Mr. Shaw's opinion, which (except in point of time, as before mentioned) is now universally received by naturalists, and of the correctness of which we have not the slightest doubt, but we may observe that these seeming discrepancies may possibly arise from a confusion of terms— that Mr. Shaw's parr and grilse may be different fish from what are called the parr and peal of the western waters. If this be so, the question arises whether at least one, if not both, of these last-named fish have hitherto been described by naturalists.* Of the two kinds

* Since the above was written, we have enjoyed the perusal of the Book of the Salmon, by Ephemera and Andrew Young, in which those gentlemen question the correctness of the term parr, as employed by Mr. Shaw. They say, speaking of the growth of salmon-fry, "The fish now [at between nine and ten months old] resembles the little trout, called the parr; but its fins are much longer than those of that little fish, and its whole shape is much less perfect. Not observing these marks of distinction has led to the confounding of salmon-fry with parr,— calling them, indeed, 'parr,' as Mr. Shaw and his followers do; whereas the parr is a distinct adult fish, of the river-
of peal (both very different from the sea-trout, which also haunts the stream we have mentioned),
the largest, called the pug-peal, run from two to
eight pounds, and ascend the river from the sea
during May, June, and July. The harvest-peal
are from six ounces to a pound and a half, and do
not commence their ascent for six weeks after the
larger sort, but both are in the river at the same
time during part of the season. The salmon come
in later still, and all return to the sea about the
same time, together with the graveling or smoults,
in the floods of early spring. But we cannot here
devote greater space to this important and interest-
ing subject. Our primary object for introducing
it has been already stated, namely, to assist in re-
moving an unjustifiable excuse for the wanton
destruction of diminutive fish.

The trout is in best season from April to
October, when the general spawning begins. The
period for commencing fly-fishing varies in different
localities and in different seasons. On most May-
tROUT species." We have no doubt of the existence of this
diminutive species in most trout streams, but it is not
easily distinguished from salmon-fry of the same size pre-
vious to assuming its migratory dress, and therefore our
cautions against the capture of all small fish, in rivers fre-
quented by salmon, becomes the more important.
fly rivers it does not take place much before the appearance of that insect in the end of May, while in many localities the height of the fly-fishing season has passed for weeks before that period. No specific date, therefore, can be generally applicable.

The trout partakes somewhat of the habits of the salmon in migrating up the stream on the approach of the spawning time in autumn, but not to the same extent. The object, in both cases, is to arrive at a spot which instinct teaches them is best suited for spawning—that is, in pure, shallow, running water, towards the spring head. The trout of the main stream ascend towards its source, and into the smaller streams which contribute to it; and those in the latter push upwards and into the still smaller brooks with which the tributaries also have communication, selecting on their way the proper places for their purpose. The important operation of spawning is thus described by Mr. Mudie, in his interesting work, "The British Naturalist: "—" The eggs or ova are first deposited, and then the milt over them, and they are then wholly or partially covered with sand or gravel. The bottom of clear running water is the best adapted for the purpose, and this is the kind of ground which the trout instinctively
choose for their operations. Four or five weeks are supposed to be sufficient for the hatching of the eggs, but that depends a good deal on the situation and the weather—the eggs in a shallow mountain stream, which is apt to freeze, being supposed to remain unhatched till the ice be cleared away in the spring. When the young fish first make their appearance they are not wholly detached from the egg, but have a portion of the yolk attached to the lower part of their bodies, which is understood to constitute their first nutriment. It does not appear that the eggs can be hatched in water that is distilled, or in any other manner deprived of air, or in that which is impregnated with lime, or any other ingredient that is deleterious to the fish in a grown state. Some have even said that they have seen the young trout, still attached to the remains of the eggs, upon a shallow sand bank, poking their little heads above the water; but, though we have looked for this, we have not found it, neither have we found the trout adhering to the place where the spawn had been deposited. We have seen it in the case of the salmon, and thus can have no doubt that it also happens with the trout. About a week or ten days after the first bursting of the egg, the fry are entirely clear of it, and begin to
seek their food with avidity — preying upon very minute insects and larvae, though there are some larvae which are said to prey, in turn, upon them, while they are also the prey of all larger fishes, even those of their own species."

A new theory of the spawning of salmon, and we suppose of all other fishes—a theory totally at variance with all received and time-honoured notions of the economy of this interesting portion of creation (not, perhaps, the better for being time-honoured)—has recently been propounded by Mr. Stoddart.* This gentleman is of opinion that fishes do not differ from land animals in their manner of copulation; that impregnation of the female takes place in the usual way, by actual contact of the sexes, immediately after spawning; and that this is the chief purpose for which the male fish seeks the female at the spawning bed, instead of that of shedding his milt upon the excluded ova. "It is not," says he, "an impregnation of the shedded or flowing ova that takes place, but an impregnation of the ovaria after spawning; and this for the purpose of endowing

* See The Angler's Companion to the Rivers and Lakes of Scotland. The author of this work is an excellent writer on piscatorial subjects, besides being a powerful poet, and a very able and enthusiastic "brother of the angle."
or fructifying the next year's deposit." Mr. Stoddart supports this opinion with much ingenuity and force; but being merely theoretical, it must only be received with caution by those who may be disposed to regard it favourably; while, like every innovation upon established system, it has not escaped pretty general opposition, nor the severest criticism of opposing writers.* In spite of all this, however, Mr. Stoddart is more than ever convinced of the correctness of his opinion, the result of further observation by himself and others; and in a private communication with which we have been favoured, he expresses the hope and belief that he shall shortly be enabled to present the public with an overwhelming mass of indisputable evidence in confirmation of his views.†

* See The North British Review, for May, 1848.
† Mr. Stoddart will assuredly fail, if the experiments of Mr. Andrew Young (the well-known manager of the Duke of Sutherland's salmon fisheries), detailed in Ephemera's Book of the Salmon, were fairly conducted and are faithfully recorded:—"He [Mr. A. Young] took a female salmon, exuded by manipulation a portion of her ova, and having simply done so, he buried it beneath the gravel of one part of an artificial spawning-pond. From the same salmon he exuded another portion of ova; but before he covered it over with the gravel of another portion of his spawning-bed, he impregnated it by pressing milt from the
For some time both before and after spawning, the parent trout are unfit for the table—they become black about the head and body, and their flesh is soft, watery, and unwholesome. After the operation, when they return to the deep still water, where they pass the winter, their shape and colour undergo great alterations. They become lank and lean, their heads appear disproportionately large, and their bodies acquire a dusky and disagreeable hue, little resembling their usual bright and beautiful tints, the contemplation of which induced our patriarch, the enthusiastic Izaac, to exclaim with Solomon, "every thing is beautiful in its season." What is worse, their skin, particularly near their gills, becomes infested with a parasitic insect (*Lernea trutta*), which is a kind male salmon, and causing it to come in contact with the last ova deposited. He then covered them in beneath the gravel, and in due time they produced fish. *The ova he had covered in without impregnation produced nothing.* He repeated the experiment frequently, and always with similar results. He has even taken two female salmon in the act of spawning. The ova of one he impregnated with milt from a male; the ova of the other he did not impregnate. He covered in each under equal conditions, apart, in the same spawning-bed. The ova that he had caused to be impregnated were productive; the other proved perfectly barren. *This experiment was repeated, and the result was ever the same."
of diminutive leech, in shape resembling a small clove, and called by Walton "the sug or trout louse." The fish remain in this state till returning spring exerts its invigorating influence, producing abundance of food, and enabling them to remove to the more shallow parts of the stream and its stickles, up which they advance by degrees. Here, becoming gradually purified and strengthened, they are at last fair game for the sportsman, if they by chance escape the wiles of the prowling poachers who are allowed by an indifferent legislature to destroy so wantonly a large proportion of what might, with hardly any trouble, become staple food for the dense population of these islands, and be an endless source of innocent and healthful enjoyment.

Trout, in common with most kinds of fish, feed chiefly by night; but in cloudy weather, and, when the water is discoloured, even in sunshine, they often feed in the day-time—induced, no doubt, by the similarity to their vision of these conditions of the water and atmosphere to the evening twilight, and by the presence of a tempting quantity of flies or other kinds of food. At any rate, cloudy days are those on which the angler's wiles are most likely to be successful. The trout then haunt, for feeding places, the sides
and tails of swift currents, or scours (called in the west of England stickles), little turns and eddies, where insects are carried by the stream, and many other places, a knowledge of which is indispensable to successful practice. Indeed, it is a fact which we would earnestly impress upon the aspirant to piscatorial renown, that to know where to cast the flies is nearly as important as to know how to cast them. A person ignorant of the former would have almost as little chance of success as if he were unable to perform the latter. It is true that in early spring, when food is scarce and the fish are obliged to depart in some measure from their usual stationary habits, in order to procure a meal, his random-thrown flies may sometimes fall in the way of "a passing inhabitant of the liquid element;" but when, as the season advances, this necessity for roving is at an end—when the fish obtain their prey with no other trouble than that of seizing it—occupying particular feeding-places, and taking at pleasure the food within their ken—in this case, he who would ensnare

"The monarch of the brook"

must not expect that "monarch" to leave his dining room and rush headlong after "the trea-
cherous flies," wherever they may happen to be! Certainly not. He must have the politeness to "drop a line," neatly and carefully, at the monarchical dwelling, coax its occupant to accept of the proffered invitation — to be led a dance by the nose, and, in due course, to be transferred, con amore, into the osier retreat of his fish basket. But to be serious. This knowledge, as we have said, is indispensable, and it can only be acquired by observation and experience, for the peculiarities of every river render it impossible to give general instructions.

It is thought probable — and the opinion is supported by Buffon, Yarrell, and many other eminent naturalists — that fishes are led to their prey chiefly by their sense of smelling. Such, indeed, is the abundance of the olfactory nerves in certain fishes, that the celebrated Cuvier conjectured that "something more important than the occasional power of smelling is given them." This additional function he conceived to be that of recognising certain substances not in themselves odorous when mixed with or dissolved in water — thus enabling the fish to make a selection of such waters as may be purest, or otherwise adapted to their habits. Mr. Stoddart is undoubtedly correct in stating that trout, when feeding on flies,
trust, in general, more to their sight in seeing them than to their sense of smelling; and that they dart at them with a velocity too great to be checked by any sudden discovery. Some naturalists entertain contrary opinions as to the faculty of smelling in fish. Among them is Mr. Erasmus Wilson, who (in an ably written chapter in Ephemera's "Handbook of Angling") places it "next in order to that of hearing, and greatly inferior to sight."

Naturalists are not fully agreed about the power of vision in fishes; indeed, unanimity cannot be expected on a subject depending so much upon analogy and conjecture. Mr. Yarrell says — "the external structure of the eye itself is but slightly rounded, but the lens is spherical, — a structure which, in a dense medium, affords intense power of vision at short or moderate distances rather than a long sight. When water is clear, smooth, and undisturbed, the sight of fishes is very acute. This is well known to anglers, who prefer a breeze that ruffles the surface, well knowing that they can approach much nearer the objects of their pursuit, and carry on their various deceptions with a much better chance of success." Professor Rennie, Professor Wilson, and some other modern writers, who are the advocates of the non-imita-
tion system of fly-fishing, thus found their theory: —"The form of the eye in fishes proves that they are all very short-sighted; so much so, that the dense medium of water can have but small influence in extending their vision, which must be further limited from the eye being covered by the common skin of the head, in order to defend the eye-ball, as there are no eyelids for this purpose as in other animals. This indistinctness of vision may be observed, by any one who will take the trouble, in the gold and silver fish usually kept in glasses. It is of considerable importance for the angler to bear this indistinctness of vision in fishes always in mind, as much of his success must depend on being guided thereby. The shadow, for example, which will be cast upon the water by having the sun in his back, will have the same effect in frightening the fish as if it were caused by a harmless sheep or a prowling otter; and the poor fishes, being unable to discriminate between friends and enemies, dart away in terror at every shadow which crosses them. The same indistinctness of vision will prove the decided fallacy of the supposed art of the routine angler, who fancies the fish are so well skilled in the colours and forms of particular flies as to refuse all other sorts on particular seasons and
days, and even at different periods of the same day. Nothing can be more preposterous than such a notion, universal though it be amongst the most experienced anglers; yet, at the same time, I am well aware that the facts are certain upon which they found the fancy, but are to be accounted for on a totally different principle. The fish appear to seize upon an artificial fly, because, when drawn along the water, it has the appearance of being a living insect, whose species is quite unimportant, as all insects are equally welcome. The aim of the angler, accordingly, ought to be to have his artificial fly calculated, by its form and colours*, to attract the notice of the fish, in which case he has a much greater chance of success than by making the greatest efforts to imitate any particular species of fly.” This extract, from “The Alphabet of Angling,” contains the substance of Professor Rennie’s remarks on this subject,—a subject to which we shall revert in a subsequent chapter, remarking at present that we are forcibly struck with the idea that

* The learned Professor appears to have forgotten what he had just said about “colours and forms.” The “routine system” is very ingeniously defended from the Professor’s “heretical innovations” by Messrs. Shipley and Fitzgibbon. See their Treatise on Fly-Fishing, chap. vii.
indistinctness of vision in fishes seems incompatible with the harmonious arrangements and wise adaptations of Providence, as manifested in every object of creation. It seems strange that a creature, provided with organs of the most rapid motion, and using them freely and fearlessly both in escaping from its enemies and in avoiding the numerous obstructions which constantly present themselves in the element in which it lives, should yet be deficient in organs so indispensable to this freedom of motion as those of seeing. The sight of birds is exquisitely acute; and therefore it is no wonder that, in their rapid flights through the air, they should never come in contact with one another, or with the obstacles which we constantly see them avoid: but it certainly would be a strange anomaly if fish—the motions of which are still more rapid than those of birds—should also escape similar mischances, as we all know they do, and yet possess only the "indistinctness of vision" ascribed to them by Professor Rennie. It seems unnatural to associate, in the same creature, rapidity of motion with defective sight; and, until such an association is admitted by all naturalists, or at least has preponderating evidence in its favour, and is found not at variance with the general laws of nature, we do not see why plain-
going anglers, although it may prove that they labour also under similar "indistinctness of vision" (intellectually speaking), should not venture to question the correctness of even a professor's notions, particularly when a difference of opinion, on anatomical and other grounds, exists among naturalists themselves, and when a new angling theory is founded on those notions. Mr. Erasmus Wilson, in summing up a minute consideration of the subject, thus declares his opinion: — "Whether, therefore, we regard the mechanical or the vital apparatus of the organ of vision, or whether we pursue the inquiry by anatomical investigation, or by observation of the habits of the animals, we have the clearest evidence before us that the faculty of sight in fishes is one of their highest sentient endowments." Our readers will judge for themselves as to the respective merits of these conflicting opinions.

If it be true that fish possess the faculty of smelling in the perfection ascribed to them by some naturalists, as mentioned in a preceding page, it cannot be unreasonable to suppose that rather from the lack of odour in the artificial fly than from anything wrong in its appearance, trout sometimes rise snappishly, or short, without taking it. On these occasions it is probable that they
have already fed to repletion, and, from being indifferent about further rising, are the more difficult to be deceived. Some affirm that, in this case, the application to the artificial fly of a small portion of a worm or fly, or of any other substance composing the food of trout, will often, from its emission of odour, induce the fish to seize the previously rejected bait. We know, also, that rhodium, oil of aniseed, assafoetida, and other aromatics, are said to possess marvellously attractive properties, and to be in frequent use by many ultra "cannie" craftsmen. We are not at all inclined, however, to apply this knowledge to any practical purpose—piscatorially speaking—though we presume not to say that it is equally unworthy the attention of the naturalist.

Although anatomical observation has proved the existence of the organs of hearing in most species of fish, there can be no question that, as affecting his sport, the angler need be under no concern about them. The result of numerous experiments with fire-arms and otherwise has confirmed us in the opinion which our own experience had long before induced. Who ever dreamed of imputing his piscatory success to the observance of taciturnity, admirable quality though it be—a quality of which we would not say a syllable in
disparagement? We remember on one occasion having first-rate sport within ten yards of a band of inebriated musicians (pardon the profanation, O Apollo!) who favoured us with a special serenade in a style any thing but dolce e piano — half stunning us with the squeak of clarinets, the clang of trumpets, and the thunder of a rolling drum, amid the uproar of a fight among the bystanders. We endured the din with proper equanimity, landing fish after fish at the very feet of our disturbers, without suspecting them of Glenkindie's power to attract our speckled captives, and yet experiencing no contrary effect.

Professor James Wilson — a brother of the delightful and celebrated "Christopher North," and the author of the excellent article on Angling in the Encyclopædia Britannica — alluding to this subject, in that article, says:—"There is no doubt that fishes possess the power of hearing, though merely as a general sense of sound, and in all probability without the power of perceiving any variety or range of intonation. It appears to us that the simple fact of fishes being, as a class, almost, if not entirely, mute, is of itself a logical ground for believing that their perceptions of sound are extremely dull."

The voracity and omniverous propensities of
fishes are well known. The trout feeds on flies, moths, worms, snails, beetles, larvæ, shell-fish, the spawn of other fishes (particularly that of the salmon, which forms an excellent bait), grass-hoppers, smaller fishes of every kind, not even excepting those of its own species—in a word, it devours indiscriminately, and with equal avidity, "every minute thing that swimmeth in the waters." Nor is it always satisfied with tit-bits and morsels, for even frogs, mice, water-lizards, and (though with less probability) toads, are said to deserve a not inconspicuous position in its "bill of fare."

Flies—as we have before illustrated—are by far the most nutritious kind of food. Of these beautiful insects there are many hundreds of species, some fifty or sixty of which, at least, comprise the angler's catalogue of "imitations." We ought, perhaps, to have mentioned earlier that the action made by trout to seize their winged prey, as it floats upon or hovers immediately over the surface of the water, is called, in angling phraseology, "rising."

We shall appropriate the following chapter to a brief account—obtained from the best sources—of some of the principal flies, concluding the present chapter with remarking (though the cir-
cumstances may be too obvious to require pointing out) that the practice of fly-fishing, in addition to numerous other recommendations, which it would be superfluous to enumerate, presents peculiar facilities for studying some of the most interesting productions of nature. The habits of fishes and of the insects on which they prey — extensive and important sections of the animal kingdom — with "many curious and interesting facts," adds Sir Humphrey Davy, himself an accomplished naturalist and fly-fisher — "are really forced upon the angler's observation;" so that in addition to the enjoyment derived from the practice of angling, the seeds of still more pleasurable and intellectual pursuits cannot fail to be sown, if the soil be of anything like the proper character to receive them.
CHAPTER III.

"Let no presuming impious railer tax
Creative Wisdom, as if aught was formed
In vain, or not for admirable ends."

THOMSON.

From the flies, of infinite variety, which haunt the water, the trout makes no invidious selection; all, as their successive genera spring into existence, in the wonderful economy of insect birth, become its greedy and welcome prey. By far the greater portion of those delicate and fragile creatures—those "emblems of human life, and beings of a day"—which form the food of trout, are produced from larvæ which inhabit the water. These are strictly aquatic flies. But not a few species found upon the water are bred upon the land, and are indebted to the wind, or some other accidental cause, for their transition to another element. Among these last are the cow-dung fly, the hazel fly, the ant fly, and many other well known species.

The flies which are most commonly imitated by "routine anglers" belong to two families of
the aquatic kind, one of which is called by naturalists *Phryganidae*, and the other *Ephemeridae*. The former is included in the order *Trichoptera* and the latter in the order *Neuroptera*. The phryganidae are familiarly termed *cad* or *caddis flies*, and sometimes water moths. The different British species, of which there are upwards of two hundred, are known by the names of gran-nam, sand fly, hare's flax, and from their colour, yellow flies, cinnamon flies, and the like. Flies of this family are distinguished, among other more minute peculiarities, by four large dark-coloured wings, pervaded by numerous veins, through which the blood—or, more correctly speaking, a fluid corresponding to what in *animals* is called the blood—is said to have been discovered to circulate. The wings are longer than the body of the insect, and when at rest lie flat along its back—the foremost and larger pair being folded over the hindermost pair. The shape and position of the wings, indeed, resemble those of moths, but the downy substance found upon the wings of the latter is altogether wanting. The *antennae*, or feelers—which emanate from the front of the head, and appear like horns—are very long; and the legs are long, dark, and slender.

The females lay their eggs upon the leaves of
overhanging trees and bushes, to which they adhere till they are hatched—a process which, in summer weather, soon takes place. The eggs produce little six-legged larvæ, which fall into the water, and immediately set about constructing for themselves tube-like cases in which to reside secure from their numerous enemies—in the list of which are other larvæ and fishes. When seen at the bottom of the water these cases appear like short bits of stick, but they will be found, on examination, to be regularly and beautifully constructed of various materials—some of minute portions of the leaves and other parts of aquatic plants; others of pieces of reed, grass, and the like; and many of fine gravel, sand, and even little shell fish,—each species selecting its peculiar materials, which are neatly and strongly cemented together with a kind of glue, which the larvæ produce, and which completely resists the action of water. The cases are lined inside with a kind of silk, which the insect spins from its mouth in the same manner that caterpillars do. The cases of most species being specifically lighter than water, the larvæ swim with facility, and thus have a greater range for their food than those species which inhabit cases composed of denser materials. These last are
necessarily confined to the bottom for their food, and that, no doubt, is the particular place at which it can be found—the different species being of course led by instinct to select the proper and peculiar materials for their habitations. "Professor Rennie," says a writer in the *Saturday Magazine*, "made repeated experiments with the larvae of the phryganidæ, in order to ascertain their mode of building. He deprived them of their coverings, and furnished them with materials for constructing new ones. He found that they worked at first in a very clumsy manner—attaching with threads of silk a great number of chips to whatever materials were within their reach, and thus surrounding themselves with materials, many of which are never used in the perfect building. Unskilful as their efforts may at first appear, there is much wisdom in this aggregation of all the substances within their reach before their dwelling is actually commenced; for when these preparations are completed, they are able to devote their whole attention to the building, and to select the requisite materials from the heap close at hand."

The larvae feed principally on tender aquatic plants, but some species are carnivorous—preying on smaller insects, even of their own kind. Taken
out of their cases, the larvæ are often used as bait for trout and other fish. Their cases are open at each extremity, and when feeding or crawling they expose their head and legs, which are instantly withdrawn on the slightest alarm, and their hinder parts are furnished with two hook-like appendages, with which they are attached to their cases, and thus can draw them along as a snail does its shell.

After having passed sufficient time in the larva state to arrive at the proper degree of maturity, the insect fastens its case to the stem of some water plant, or other substance, and, closing it at each extremity with a kind of grating, through which the water necessary for respiration flows, it turns to an inactive pupa, which is a further step towards its perfect state, the rudiments of which, indeed, now become clearly perceptible. In a few days it issues from its outer case, rises to the surface of the water, and, bursting its pupa skin, appears in its last and perfect form of a beautiful fly.

The time at which this class of flies appears on the water depends on the temperature of the season. If it be mild, the sand fly will be seen in the end of March. This fly is much more abundant on some rivers than on others, and its
imitation is more or less used in these different localities. * Bainbridge, Ronalds, and some other writers, speak highly of its "killing" properties. As the season advances the phryganidae appear only in the mornings and evenings; and in the height of summer, during the night only,—thus approximating to moths in their habits as well as conformation. The grannam, which is also called the green tail, from the colour of the bag of eggs in the female, first appears in April, and may be seen flitting, in infinite numbers, about the sides of the stream, and among the bushes on its banks. In warm weather during May and June, the angler should be at work by sunrise, for he will find the fish disposed for early breakfast on the grannams and other flies which sol's first beams bring into existence; and, as the summer advances, he may expect the fish to be more inclined for their winged feast at daybreak, and in the "shades of evening," than during the heat and lassitude of the day. The male grannam is called the hare's flax, and is not, of course, in possession of the green caudal appendage of the female.

* Careful and complete instructions for dressing the various flies mentioned here and elsewhere in this work, and lists of the proper materials for the purpose, will be found in subsequent chapters.
The cinnamon fly, of which there are several varieties, comes on the water in August. It much resembles the sand fly of April.

The family *Ephemeridae* comprises a tribe of insects very different in their appearance and habits from the phryganidæ already described. Their antennæ, or feelers, are very small, and their wings—which, in the smaller species, are very delicate and nearly transparent—stand erect on their backs, like those of the butterfly. They have two pairs of wings, the hindermost of which is very much smaller than the anterior pair. Their bodies are soft, small, and elongated, and from their extremity proceed two (in a few species three) long hair-like filaments, called *Setæ*, or, in less scientific language, *tails*, or *whisks*. The ephemeridæ, in their perfect state, are the most short lived of insects—hence their name. Their longest life extends but to a few hours; some species to only a few minutes. In the boxes of naturalists, however, they have been kept alive for more than ten days, but, as Mr. Westwood remarks, "there can be no doubt that had these individuals been at large and capable of pursuing their natural habits, their existence would have been as short as that of their companions."

The female lays her eggs on the surface of the
water, and, sinking to the bottom, they are soon hatched. Although the life of the insect, in its perfect state, is so very short, such is by no means the case in the larval stage of its existence. In some species two or three years elapse between the hatching of the egg and the appearance of the insect in the winged state. That time is passed at the bottom, where the insect undergoes various transmutations, each gradually fitting it for its brief existence in another element. Unlike the phryganidæ, these larvæ do not construct cases in which to take up their residence, but they hide themselves under stones and among the roots of plants — sometimes collecting together in great numbers. Some excavate holes in the mud at the bottom and along the banks below the surface of the water. These retreats consist of two tunnels, each having an external opening, and connected inside at the extremity. The object of this contrivance is to allow free ingress and egress to the inmate. Were there but one straight perforation the insect would be obliged to turn itself quite round to effect its object, which would be attended with great inconvenience, from the diameter of the tunnel being little larger than that of its own body. The burrowing kinds seldom quit their retreats, but the others range about very actively,
feeding upon vegetable matter. It is stated by some writers that the former feed upon the clay, in which their holes are made. Swammerdam, the celebrated Dutch naturalist, found that substance in their stomach and intestines. "It is therefore most probable," says Mr. Westwood, "that when the larva has assimilated the decaying vegetable matter contained in the mud, the earthy particles are discharged. The larva is provided with six legs, and what are regarded by some writers as a row of fins on each side of the body. These fin-like appendages, however, are, with greater probability, considered by other writers to be the organs of breathing—answering to the lungs of land animals, and to the gills of fishes. They are constantly in motion, and are pervaded by little tubes, very curiously arranged, through which the air is supposed to pass. The general form of the larvae resembles that of the perfect insect, with the exception, of course, of wings, and the likeness becomes more and more apparent after each moulting. Its last change, in the water, is into the pupa state, and when this has taken place and the atmosphere is of the proper temperature, the insect rises to the surface, and, emerging from its confinement in the pupa skin, appears in the form of a delicate fly. But its
transmutations are not yet complete, for the newly produced insect makes early use of its wings to remove to the nearest bank or tree, where it undergoes its final metamorphosis—shedding the whole of the delicate skin with which not only its body, but its wings, legs, and whisks were covered. The cast off skin remains behind, retaining for a short time the exact form of the insect.* After this final change the fly is brighter in colour, its wings are more shining and trans-

* This wonderful operation may be witnessed by any one who will take the trouble to catch a blue dun, or any other ephemeral fly, and place it under a wine glass. Or even that trouble may be saved by watching, for a few minutes, the same kind of flies alighted on the sleeve of his coat during his summer-evening’s ramble by the river side. These insects will have availed themselves of his presence for the express purpose of undergoing the operation, and if he be a lover of nature, the contemplation of such a sight will prove an ample return for the convenience afforded by the said sleeve, and for the slight interruption to his fishing or his walk which that contemplation may have occasioned.

To the dwellers by the Axe we need not mention Cloakham bridge as a favourite resort of ephemeral flies for the purpose mentioned, nor as an excellent place for studying the economy of many other aquatic insects; to say nothing about its claims to their attention for affording a pleasant prospect of varied scenery, and for the study of other portions of animate and inanimate nature—from the beaux and belles of Axminster, and the groves and lawn of Cloakham, downwards.
parent, and its whisks are considerably longer. The insect is at last, after so much labour and danger, in its perfect or imigo state, and being now furnished with organs to continue its species it loses no time in fulfilling the Divine command. Indeed, it has no time to lose. The new life, or rather state of existence, into which it is launched is but a very brief one — its very moments are numbered. The parental duties are hastily commenced, and the life of both the male and female insect ceases with their accomplishment. The duns and other smaller species lay their eggs while sitting on the water, but the May-fly, and some others, do so while springing up and down in the air, from the surface. The whole number deposited by a single May-fly has been calculated at eight hundred, which, perhaps, is considerably more than that deposited by the smaller species. Very little time is occupied in depositing them, as they are arranged in two packets, the contents of each being cemented together with a substance soluble in water. These packets are deposited at the same moment, and the grains of which they are composed separate, and become dispersed in the water, to be hatched as before described. To counterbalance its immense prolificacy, the enemies of the little insect are numerous and
voracious. The swallow which skims the pool, and the trout which breaks its surface, immolate thousands when in the very act of propagating their kind—and the latter, too, are not indifferent to their future winged prey when in the state of crawling grubs at the bottom of the water.

The blue dun appears upon the water towards the end of February, or earlier in mild weather, and continues in a succession of species and varieties throughout the season. After the blue dun has changed its first-winged coating, in the manner just described, it assumes a different colour and is called the red spinner—in which state it lays its eggs. Its imitation in the *dun* state, however, is most used by anglers—particularly in the early part of the season. "The term *dun*," observes Mr. Ronalds, "seems to have been applied in a general sense to the different species of ephemeridæ in the first winged state (except those of the largest size) another name being added to designate each species—as the blue dun, yellow dun, &c. In like manner the term *spinner* seems to have been applied as a general name for the final or perfect state of the same insect—another name, also, being added to distinguish each species, as the red spinner, the great red spinner," &c. The latter is the meta-
morphosis of the much praised and far famed March brown, or brown drake, as it is often called, which is a large brown insect of great beauty, and forms, if the inhabitant of another element may be allowed to judge, a very tempting and appetible morsel. It appears on the water in the middle of March, and continues about three weeks, and sometimes rather longer.* It is only seen in warm days, when few duns are to be found, and its imitation is used most successfully in windy weather, upon the ranges or deep parts of the river. In April a species of pale lemon-coloured dun, with delicate gauze-like wings, comes on; and towards the end of the month is succeeded by a variety more decidedly yellow, with wings of nearly the same colour as the body. The spinners to which these duns change are of lighter and darker red in proportion to the yellow tint of their precursors. As the season advances, the duns, in both their winged stages, become gradually darker, and by the middle of September they acquire the same hue as on their first appearance in spring. A variety

* When a fly is spoken of as remaining on the water for a certain time, it must be remembered that not an individual, but a species, is meant—a new generation being hatched every day, and often every hour.
called the September blue is very prevalent during the whole of autumn. It is very small and nearly white. The iron blue, or Scotchman, is one of the most delicate and beautiful of water flies. It is most abundant, on cold days, from the middle of April to the middle of May, but it is occasionally on the water through the rest of the season. Its imitation is in great repute, being on many rivers what the May-fly is on others—one of the best and most favourite flies. Its little body and wings are very dark blue, and its legs yellow. After casting its skin it appears in the very different garb of the white or silver spinner—the imitation of which is chiefly used in summer evening fishing. Of the British ephemeridæ the largest is E. vulgata—the May-fly. This beautiful insect, though totally unknown in many rivers, literally swarms in others. It usually appears towards the end of May, and continues in season about a month. It is greedily taken by trout, which soon give ample proof of its nutritious qualities; and its imitation—particularly if dressed smaller than usual—may be very successfully used, especially in windy weather. In its first winged state it is known by the name of the green drake. The female changes to the grey drake, and the male
to the black drake — which last is seldom imitated artificially.

It is somewhat extraordinary — and we are not the first to notice the circumstance — that the natural history of the May-fly should be so little understood by many of the best anglers on the rivers on which it abounds. It is generally believed to spring from a cad-case similar to that of the stone fly. The idea is altogether erroneous. These identical species, indeed, are the leading English members of two distinct classes of insects, widely differing from each other, in their structure and habits, during every state of their existence.

The stone fly belongs to the family Perlidae, which is included in the same order as the ephemeroptera. It is a very large brown insect, in season during April and May, and its imitation is only fished with in windy weather. To the same family belong also the yellow sally, appearing in May; the willow fly — a large insect, though much smaller than the stone fly, and easily recognised by its habit of fluttering about on the surface of the water; and the red fly, which appears in February, or earlier in mild weather, and continues till April.
CHAPTER IV.

"The rod fine tapering with elastic spring,
Snatch'd from the hoary steed the floating line,
And all thy slender wat'ry stores prepare."

Thomson.

In the natural order of our piscatorial lessons the selection of the various implements required for the pursuit of our art presents indisputable claims for consideration at this stage of our labours. It may be well to observe that we shall not attempt to give instructions for the manufacture of all the different articles, because such instructions would occupy a great deal more space than would perhaps be commensurate with their utility. Nobody, now-a-day, thinks of becoming his own rod or reel maker, except professionally. Most of us are too closely engaged with the active duties of life to find time for such a purpose; and those who are not, have rarely the mechanical ability, or, if so, the inclination, to apply themselves to the task. And the necessity for such amateur manufacture is obviated by the facility
and comparative cheapness with which every article can now be procured in all parts of the country, in a style of workmanship unmistakably characterised by the extraordinary improvement which the last few years have so conspicuously developed in all our industrial productions, whether ministering to the wants or to the amusements of mankind. Except in the case of flies, therefore, to which these remarks can hardly be so generally applicable, we shall confine ourselves to such a description of the necessary implements as we may consider necessary to enable our pupils to make a judicious selection of them— to detect inferiority, and to know what constitutes excellence.

We proceed first, then, to treat of the fly-fisher's rod, and then, seriatim, of his tackle, or, as it is called by Dame Juliana Berners, his "harneys,"

* This lady was the first angling author, or at least the first who published a printed book on the subject. She wrote that curious production, The Boke of St. Alban's, which was "imprinted" at Westminster, by Wynkin de Worde, the assistant and friend of Caxton. This "Boke" was published originally without "the Treatyse of Fysshinge," which was added to it for the first time in 1496. Dame Juliana, who was eminent for piety and learning, and whose name ought to be held in veneration by anglers in all ages, was prioress of the nunnery of St. Sopwell, near St. Alban's, Hertfordshire, and her "Boke," besides the "Treatyse of Fysshinge" already mentioned, contained
and shall conclude this division of our subject, with instructions, in a separate chapter, for the manufacture of artificial flies. These instructions, we trust, will differ from those very generally given in works of this description, in the important particular of being sufficiently simple and complete to effect an object so much oftener attempted than attained, namely, that of enabling a person of ordinary intelligence to acquire from them alone, with moderate application, a practical knowledge of the delightful art. We say this with some degree of confidence, because both the letter-press instructions and the diagrams which illustrate them are the production of practical fly-makers, and have been prepared with no little labour and care; and because more than one pupil, possessing not the slightest previous knowledge of the art, have by their aid alone, in manuscript, become what many who manufacture books on angling are not—the makers of a neat and "killing" fly.

In the choice of a fly-rod the purchaser must dismiss every idea of a whip, and remember that the great desideratum is power, not pliability, and that stiffness is one of the chief means by which also treatises on "Hawkynge and Huntynge," in verse, and also a treatise on the method of "Blazynge of Armes."
that power can be obtained, supposing the rod be correctly made in other respects. It must be obvious that considerable care should be taken in the selection of this important implement, seeing that upon it so much of the angler's success depends. To insure a good cast, or to strike and play a large fish properly with a bad rod—that is to say, with a rod which is either too pliable in the lower part, and top-heavy, or else too rigid throughout and of too cumbersome a size—amounts to sheer impossibility. We shall endeavour to point out, before we have done, what we conceive a good rod to be, and although our notions may not exactly square with those of many other writers on the subject, we hope the reader will not on that account find them the less worthy of his attention.

A good rod does not begin to play much till about the middle, whence its elasticity increases upwards in proportion with the gradual tapering. It is made of such just and correct proportions, and its pliability is so nicely regulated, that, whatever be its weight, it balances so well in the hand as to feel very light and free in using. Such a rod is—to use a figurative phrase—a rara avis—a thing so seldom met with as to become a curiosity—a piscatory treasure—ever
to be valued by its fortunate possessor. One cause of this rarity is to be found in the circumstance that rod makers are seldom rod users: and should this not be generally the case, the chances are that the maker does not fully understand the principles on which a rod ought to be constructed. This may be called an ungenerous remark, but it is induced by our own experience and that of older and better anglers than ourselves— and the truth is not always ill-naturedly told. In our opinion, fly-rods for the generality of trout streams in this country—we mean not, of course, the few rivers to fish which a double-handed rod is necessary—are usually made too large and too long, or else their length is out of proportion to their diameter—rendering them over pliable, and therefore comparatively powerless. A moderately stiff and small rod of eleven feet long, possesses infinitely greater power, and is infinitely more pleasant to use, than a heavy pliable one of fourteen feet in length. In fact, the latter has no useful power— it will not throw against the wind, nor can it well, indeed, be used at all in very windy weather. Some peculiar properties it certainly does possess, and among them are the undesirable ones of tiring the arm, failing to strike or play a fish well, and causing
constant entanglement of the line. The disadvantages of a long and over flexible rod are well known to us: we can, indeed, speak very feelingly upon the subject, for it was once our misfortune to be the proprietor of one. Its original cost was thirty shillings, and right glad were we to exchange it with a "brother of the angle" for a ten shilling rod, not above two-thirds its size, but the equal of which, for power and general excellence, we have never yet met with. Our friend, however, was well pleased with the exchange; so were we—very. It is but fair to add that good rods are nothing like so scarce as they formerly were. The last three or four years have seen some great improvements, and—from what cause we presume not to say—a very general falling in with the opinions we have long and repeatedly set forth.

As from the wrist proceeds the chief action in the process of throwing the line, it is obvious that the choice of the rod should be influenced by the strength or weakness of that joint. What is a stiff and cumbersome rod to one man may exactly suit another of stronger muscle; and the same rod tried by a third person, possessing still greater strength, may handle light and airy as an enchanter's wand, and, therefore, will be to him,
comparatively speaking, powerless. A person may determine by a very few casts—supposing him to be expert in throwing—whether the rod he handles be adapted to him or not. If it be properly under his command, the force communicated by his wrist, in wielding it, will be felt at the very point of the line, and the fly there will alight upon the water quiveringly and insect-like. If otherwise, the spring required in the impulsion of the rod will be so neutralised by the overweight of the latter, that it will not be communicated to the line, which, in consequence, will be thrown solely by the movement of the rod, without any control of the wrist, and will always fall in an ungoverned and slovenly manner.

Much of what we have already said and shall have to say in future pages, will not, we expect, be fully understood by a person wholly unacquainted with the art; but he will find it gradually become more and more intelligible as his practical experience increases. We therefore recommend a person desirous of making his first equipment, to act in some measure under the guidance of an experienced friend, if such can be met with; or else to rely upon the advice of the tradesman from whom he makes his purchases—provided he is a practical angler and an honest man, as indeed all true
anglers must necessarily be. We only ask of the pupil who honours us by accepting our tuition, to adopt our instructions *in toto*—to allow us to teach him all or nothing—profiting as he goes on by what his increasing experience suggests, so long as it is in conformity with the principles which we lay down. When he shall have gone through the book, and applied and mastered its instructions, one by one—when he is thus fairly out of his leading-strings, and in a position to set up as an angler on his own account, the matter is very different. He will then be at liberty to adopt what new instructions he may please—to study, compare, and practise them if he will. But, we repeat, to do us justice, he must follow implicitly our advice and rules; and if seeking the assistance of older hands, as we recommend in the selection of the rod and tackle, must listen to nothing contrary to that which we set down; else he will not be giving us fair play, and will perhaps find out, to his cost, in the end, that "in the multitude of counsellors" there is not always and in all things "wisdom."

To some extent out of curiosity, but more especially for the benefit of those who dislike our notions of a rod, and prefer a long and heavy one, we subjoin the opinions of two old writers on the
subject, with which these dissenters will perhaps be more inclined to agree. Cotton, the friend and disciple of our patriarch Izaac, says: "For the length of your rod you are to be governed by the width of the river you chuse to angle at, and for a trout river one of five or six yards long is commonly enough; and longer it ought not to be, if you wish to fish at ease, and, if otherwise, where lies the sport?" Aye, "there's the rub;" and we may ask these objectors if they know any sport more easy, pleasant, and agreeable, than that of flogging the water for a whole day with a rod eighteen feet long, and not remarkable for its lightness? Verily the modern lords of the creation have lamentably degenerated from their hardy and stalwart ancestors — they have become a weak and puny race. Yea, according to the author we are about to quote, we moderns bear no comparison, in muscular development, with even those "weaker vessels" the ladies of the "olden time." She of whom so honourable mention has been made in a foot-note at the commencement of this chapter — the ancient sporting Dame, we mean, — was herself accustomed to use (and she advised others to do the same) a rod full fourteen feet long. It was composed of three pieces, the joints of which were bound round with
long hoops of iron. The butt was a "fayre staffe of a fadom and a halfe longe, and arme grete"—that is, the size of one's arm; "the whole making a weight," remarks Fitzgibbon, "far too ponderous for the muscles of us modern males; and Miss Juliana herself must have been a lady of powerful 'thews and sinews,' not very much macerated by prayer and fasting, prioress of a nunnery though she was."

The fewer pieces a rod consists of the better for use; though for convenience, particularly if the angler be in the habit of travelling, the remark is not so generally applicable. Under any circumstances, however, we do not advise more than four joints, and consider three to be preferable, on account of the rod composed of them handling lighter and better, and being less liable to derangement in its fewer ferrules. As to the mode of connecting the joints, we deem the common plan much better than that of screw ferrules, which are heavy and apt to get out of repair; but care should be taken to ascertain that the ferrules are nicely made, that they are fastened firmly, and fit true and deep. The use of screw ferrules is almost confined to Irish rods, which are generally beautifully made, but on very different principles from what we consider the best. They are
too much of one size throughout, and therefore too pliable for any but the very weakest wrist and the most dandy summer-day fly-whipper.

We like no nick-knackery in our fishing gear—nothing ornamental only without commensurate utility. Out-of-the-way things are our abhorrence. Not that we are prejudiced against novelty, but because all novelties are not improvements, and because, therefore, the inexperienced angler may be allured by new and well-puffed articles from things of sterling value, though of old-fashioned fabrication. What are called general rods,—that is, rods intended for all sorts of fishing, worm, fly, float, and minnow,—may be classed in this category, and should, therefore, be avoided as religiously as Morison's pills, for both are quackery alike. It is impossible to adapt one rod to all sorts of work, let the joints be appropriated as they may. Nor is it necessary that it should be so adapted. If you want a fly-rod, reader, be content to buy a fly-rod alone; if a worm-rod or a trolling-rod, let it be so, made for the one particular purpose, and nothing more; nor begrudge a few shillings in the purchase, if dealing with an honest man, who practically understands his business. All others, for the craft's sake, thou wilt, of course, religiously eschew.
There are several different kinds of wood used in the construction of fly-rods, those in greatest repute being ash, willow, and fir for the butt; lancewood, bamboo cane, elder, briar, and hazel for the top; and hickory, lancewood, yew, &c., for the intermediate pieces. Of these, the best, perhaps, are willow, hickory, bamboo cane, and lancewood. The last, for the top joint, can be made of sufficient thinness at the point to dispense with whalebone, which is heavy and otherwise objectionable. We need not say that whatever kinds of wood are used, it is of paramount importance that it be well seasoned, and that the different sorts in the same rod be properly adapted to each other. The butt should be bored, for the purpose of receiving a spare top, and furnished with a spike screwed into its base. Modern rods, of any pretension to superiority, are never made without these obvious conveniences.

As to the colour of rods, it is not, perhaps, a matter worth disputing, although we must confess that we have a decided penchant for black. Some may think us fastidious in supposing that highly varnished yellow rods are likely to scare the fish—particularly in sunshine. One thing, however, and it is important, must be said in favour of light varnish, namely, that it renders
visible all knots and other imperfections in the wood, to conceal which, it is more than possible, black varnish is sometimes daubed on. But again, the colour of yellow rods is imparted by means of aqua fortis, which probably operates injuriously upon the wood. So much *pro* and *con*. The advantages are decidedly in favour of black rods, and this would seem to be a pretty general opinion, for a yellow rod is now very seldom seen in the hands of any fly-fisher.

The rings of the rod, through which the line passes from the reel, are of more consequence than some may imagine, inasmuch as correctness and comfort in throwing depend somewhat upon their perfection. It is not only necessary that the rings be brazed neatly and strongly, but also that the metallic loops by which they are fastened to the rod be of good material. That generally used is the fine copper on which watch dials are formed, but perhaps small brass or copper wire would be found more durable. Whenever a ring is lost, particularly from the top joint, it should be replaced before the rod is again used, or a strain or fracture may be the result; to say nothing about the inconvenience of fishing with the line hanging loosely at the place where the ring is wanting. The rings on the butt should
be rather larger than those at the other extremity; or, to be more correct, they should diminish in size gradually from the butt upwards. The binding of the loop of brass with which the top of the rod is terminated should be whipped neatly over with very fine brass wire, in order to prevent it from being worn by the friction of the line.

When the rod is laid by for the winter, it should be rubbed over with either salad or linseed oil, and hung in a dry place. A coat of varnish, too, in the course of a couple of seasons, or oftener if the rod be much used, is very desirable. Copal varnish is recommended by some, and it is said to answer very well; but that compounded from the following recipe, given in "Daniel's Rural Sports," is preferable for many reasons: — "Shell-lac and seed-lac, a quarter of an ounce each, finely powdered and put into separate phials, with a quarter of a pint of the best spirits of wine each; to be placed in a sand heat and shaken often till dissolved. When each is dissolved mix them together, in a bottle sufficiently large, with a quarter of an ounce of gum benjamin. Increase the heat and the dregs will subside. Warm the wood, and, with a camel-hair brush, lay on a thin coat."
A three-joint rod of the kind we have endeavoured to describe, and of the best possible materials and workmanship, may be purchased for about a guinea, and a four-joint one for about twenty-four or twenty-five shillings. The prices, of course, vary in different places, and many "tackle-puffers" (as Stoddart aptly designates them) profess to sell the best rods at something less than what would really be the cost of best materials. To such worthies and such wares, however, we cannot be suspected of having alluded.
CHAPTER. V.

"Bring the rod, the line, the reel! 
Bring, oh bring, the osier creel!"

Stoddart.

We shall in this chapter complete our description of the fly-fisher’s tackle — his line, reel, hooks, and so forth, in the selection of which the same care and attention should be paid as we have shown to be so essential in the case of the rod; and for the same reason — namely, that future success very materially depends upon the good quality and adaptation to each other of these different articles. The materials for fly-making, and all that relates to the manufacture of flies, will follow in a separate chapter.

With the Line the same adaptation to the rod must be observed as we have seen to be so essential in that of the rod to its wielder. It may be taken as a general rule that the stiffer the rod, the heavier and stouter should be the line, and vice versa. Like the rod, too, the line should taper with almost mathematical precision — not
throughout its whole length, but in that part of it which is mostly thrown out upon the water; for as the rest will remain wound up in the reel, in reserve for an extraordinarily far cast, or for playing a powerful fish, it may be of one uniform size. If, therefore, the tapering of a twenty-five yard line commences about the middle, it will be quite enough. Although we have used the terms *heavier* and *stouter*, they must, of course, be regarded only as relative, for it is evident that the line must never be of such a size as to disturb the water in using; though there is a difference in the construction and weight of different lines sufficient to justify the use of these terms, in the absence of others more literally correct.

There are three different kinds of lines—those of horse-hair, of silk, and of both these materials spun together. The silk line is totally useless; it imbibes the water too readily, and thus becomes over heavy. The silk-and-hair lines are generally considered best, and when they contain only a very small proportion of silk, they certainly have very considerable claims to that distinction; especially the London patent lines, which are very evenly and beautifully spun. But for the style of rod which we recommend—namely, a light and stiff one—there is perhaps nothing
better adapted than a hair line, if its extreme fine end be rejected, and the tapering, for a yard or so, before joining the collar, be continued with a substitution of twisted gut, forming what is called a "point," or "bottom." This "point" may be twisted with quills, in the same way that school-boys make horse-hair lines. It should be spun in three twists, that is, one strand or thread of gut in each quill, and taper downwards from stout to the very finest gut, so that at its place of junction with the collar it be not thicker than the coarsest end of the latter. These strands must be united, in twisting, by means of a very fine, neat knot, tied as hereafter directed, and the length of the strands must be so arranged that the different knots lie at some distance from each other. Remember, we are not speaking of twisting different series of triple gut, independently of each other, and then knotting them together afterwards like an old-fashioned knotted line, but of knotting the separate strands together during the process of twisting, so that, in one sense, the whole point may appear one entire piece. If properly made, the knots will be so minute that they will not only be no detriment to the lightest casting, but will also run glibly through the rod rings while being wound up with the line upon
the reel. Unless hair lines are of the very best description—made of the choicest material, and spun evenly but not too tight, they are objectionable on the score of strength, and are apt to kink in using. The London patent line is exceedingly strong, even when run to the extreme of attenuation; indeed, its fineness is often its greatest objection, from the difficulty of throwing it against the wind, although this, of course, may be removed by rejecting the extreme fine end, and substituting a point. A light and fine line, as we have before implied, is obviously the proper adaptation to a small and pliable rod, and the reverse; and so long as this is kept in view, the choice between the different sorts of lines may be safely left to the judgment of the user. For ordinary trouting, twenty yards of line are sufficient; but in rivers visited by salmon—in which case, also, the tackle should be stouter than would be otherwise advisable—thirty, or five and thirty yards, will not be too much. We have proved it "no joke" to play Salmo salar with only fifteen yards of line, and therefore beg particular attention to the precautions we have given.* The colour of the line is not of material

* See The Book of the Axe, pp. 92, 93. 2d edition.
consequence, but if there be any preference it is, perhaps, in favour of light green and pepper and salt colour. Lines of bay hair and white silk, intermingled, are the favourite sort of many; the best colour, however, is that which shows least conspicuously in the water, and it can be selected by the angler without further instructions from us. We hope, however, that he will not be too fanciful, and prove "more nice than wise," for some ingredients used in dyeing lines, as well as other articles, have properties not calculated to increase their strength or durability. Oil is sometimes applied to lines from a mistaken notion of its preservative qualities, when the fact is that few substances make horse-hair more quickly rotten. Of this we had satisfactory proof, some years since, on the first day of the season, after our line had been saturated with oil during the winter. The day was most propitious—rising time had commenced, and we had the gratification to see the first large fish that we hooked sail off with some half-a-dozen yards of our "best London patent," collar and flies also, of course.

The best silk-and-hair wove lines, called the London patent, are sold at the rate of three pence per yard; silk-and-hair spun lines at three halfpence; and hair lines at a penny per yard.
We shall now treat of the reel, which is called also the winch, and, in Scotland, the pirn. Great are the improvements which have lately been introduced in the manufacture of this important article of the angler's equipment. The chief of them is the alteration of the shape of the frame, by contracting its width, from the old standard, and proportionally swelling its diameter — retaining, of course, the common or simple movement. This alteration of shape adds so materially to the speed with which it enables the line to be wound in, that the absence of multiplying wheels, on the old plan (taking their numerous defects into account), is more than compensated for. These wheels, from their intricacy, and consequent liability to derangement, were the constant source of annoyance to all who used them. But the multiplier (as this kind of reel is called) is now so entirely superseded by the simple reel of the contracted form, that further remarks upon it are unnecessary. The angler should be careful to select a light and nicely made reel, on the contracted plan, and as a guide to its proportions he may remember that the size to contain thirty yards of line is about half an inch wide by three inches in diameter. Its construction should be of the simplest character —
merely an axle passing through a very contracted frame, and turned by a simple handle. But it must not wind too freely, or the line will be apt to over-run, and to be constantly getting entangled from the too easy and unchecked revolution. This over-freedom of motion is usually guarded against either by the application of a "click," which acts in a manner somewhat similar to a railway break, or else by the action of a spring placed between one of the fixed and revolving plates. Perhaps the latter is the neatest and simplest plan, but we confess to a partiality for the click, and chiefly on account of its music. It produces the

"—Something in that circling wheel
Which wakes the heart's emotion."

"Novelties" (as the drapers say) in "the article" of reels, are occasionally presented to the notice of the angling public; but, like many novelties of other kinds, they have, generally, but little of intrinsic excellence to recommend them. Many which have fallen under our notice were evidently the production of parties whose knowledge of the use of the articles they made was infinitely surpassed by their mechanical skill. The reel should be firmly attached to the rod in
a direct line with the rings, and at a greater or less distance from the butt end as may be required to balance the rod; generally, from three to six inches will be found the proper distance. There are two principal methods of fastening the reel. One requires a hoop of brass at the back of the reel, to encircle the butt, and is kept tight by a screw. The other, in place of a hoop, has a plate of brass to fit into a groove which must be cut to receive it in the butt; two light circlets of brass, or leather, drawn tightly over the plate, keep the reel firm. The first is by far the preferable method, as it admits of the easy shifting of the reel for the proper balancing of the rod. The price of such a reel as that which we have described (if of the best workmanship) is about five shillings.

THE COLLAR.

The lowermost part of the line, when fitted up for actual use by the river's side, — we mean the part to which the flies are attached, — is called in the West of England the collar, and in other parts of the country the foot-line, casting-line, and gut-link. It is composed of a series of lengths of silkworm gut, which should be of good
quality, and not, as is often the case, of the coarsest and worst. Its length must depend upon the power of the rod and the degree of tapering of the line with which it is to be used. Indeed, the wrist of the angler, and his rod, line, and collar, must always be regarded as parts of one machine, and be adapted to each other with almost mathematical exactness; otherwise, pleasant fishing will be out of the question. Very little practice will prove that correct casting depends a great deal upon the proper proportion of collar. When the line, instead of going out smartly and straight, bags, and falls loosely upon the water, it is by reason of the smaller extremity being too much of one uniform size—a defect easily removed by shortening the collar, and, if need be, the fine part of the line also. There will occur few cases in which more than four yards or less than two yards of gut will be required; but on this point, in common with many others of our subject, so much must be left to the exercise of the sportsman's own judgment, that only a broad rule can be laid down.

In making a collar, care should be taken to match the lengths of gut with each other, that the whole may taper uniformly. Two stout pieces are first to be tied together, then two of
the next size smaller, and so on, gradually lessening to the bottom end, the last yard of which should be fine and round. The front fly, or stretcher, as it is called (in contradistinction to the other flies, which are called droppers), must be fastened at the extremity with the same kind of knot as that employed for joining the lengths of gut which form the collar, and it should never, on any account, be looped on—for loops at the point, besides being clumsy, streak the water in fishing. The best knot for the purpose is called the old angler's or the slide knot, which, though so simple as to be learned on witnessing a single performance of the operation, is somewhat difficult to describe. We will, however, make the attempt:—One end of each of the two pieces of gut required to be united is held in each hand, between the forefinger and thumb, and projecting two inches beyond their tips. The end thus projecting in the right hand is then placed side by side with that in the left hand, both being then held between the tips of the thumb and forefinger of the latter, one pointing to the right, and the other to the left. Holding the two in this position, take with the right hand the end pointing to the right, and turn it over the other piece of gut in the form of a ring, bringing the end through,
and drawing tight the knot thus made,—a common knot, in fact. Then reverse the gut in the left hand, and tie the other end in the same manner. Draw the two knots together tightly, and they will run neatly together into one. Cut off the superfluous ends, and you will have one of the firmest and most desirable knots in the world, matrimony alone excepted.

If but a single dropper be fished with (and we advise no more) it should be placed about half a yard down the collar, measuring from the junction of the latter with the line or point; and when more than two flies are used, the distance between each should be equal. As to the mode of attaching the drop-fly, we recommend the old-fashioned way of looping—provided always that it be neatly done—in preference to the more modern plan of inserting the gut within one of the slide knots of the collar. Many anglers are in the habit of using even more than three flies—a practice which we by no means uphold. In summer, when the weeds are usually high, we dispense entirely with a dropper, and use only a single fly, at the point. To this custom we owe the preservation of many a collar and fly, much freedom from entanglement of line and breaking of rod, and, above all, frequent captures of many a
yellow-sided spanker, whose retreat, by reason of densely surrounding weeds, was inaccessible to all collars carrying more than a single temptation. That the drop-flies, when used, may not easily become twisted about the collar, they should be tied to stout and very stiff gut, not longer than two inches for the first and three inches for the second. Instead of connecting the line or point and collar with loops, as is very commonly done, we have long used a neater and more expeditious method. At the end of the line or point we fasten a piece of strong gut, to which the collar may be attached by a slide-knot, and the disunion may be instantly effected by the application of a knife or the teeth. With care, a long piece of gut will afford a great many tyings, and when it is all used, a new piece can be easily supplied. At the conclusion of fishing the collar should be evenly coiled over the distended fingers, and deposited in the pocket of the fly-book. We need hardly say that it ought never to be wound with the line upon the reel.

GUT,

one of the most useful articles in the angler's catalogue, is manufactured from the entrails of
the silkworm, and the chief supply is derived from Spain and Italy. The process of manufacture, which is very curious, is fully described in Mr. Blaine's "Encyclopædia of Rural Sports."* The unproductive worms — that is, those valueless for silk — are steeped in vinegar for a few days, till they become tough, when the manufacturer takes them out separately, and pulls off the outside skin, which is then a bright yellow, as may be seen adhering to the fag or useless end of the gut. Using his teeth and fingers, he stretches out the glutinous intestine of the worm to the required length, and then pegs it down upon a flat hollowed board — leaving it exposed to the air till it becomes bright and hard. The more it is drawn out in length, the finer, of course, the gut will be. An inferior kind of gut is manufactured from the sinews of herons and other birds, and also from the fibres of certain plants. The sort called Indian weed is made from a grass peculiar to the shores of the Mediterranean. None of these last-mentioned kinds should be used by the fly-fisher, and if, in the confidence of inexperience, they are ever employed by him unwittingly, a very little wear will

* Published by Messrs. Longman & Co.
reveal their inferiority. The advantage of silk-worm gut over every other kind is unquestionable, and that alone should be used by the fly-fisher. It is sold in skeins containing each a hundred threads, and in choosing it care should be taken to select those threads which are clear and round — rejecting all that are flat and dull coloured. "The best proof of the strength of the gut," says Professor Rennie, "is its hardness. Bite it, and if it resists the teeth like wire, that is, does not easily give way, it is good.... That which is quickly bitten through, and makes little resistance to the teeth, will not hold a fish in a proper manner." When gut, by frequent using, becomes worn and frayed, it may be easily renovated by the application of Indian rubber. There is much difference in the quality of gut, and therefore some difficulty in stating the price at which it may be purchased; but as we think that the plan we have commenced of giving the usual prices of the different articles may be useful to the inexperienced angler, we shall do so as nearly as possible in every instance. It will be sufficiently exact to say that very excellent fly-gut may be purchased at three or four shillings per skein.

We shall now say a few words about a small
but very important article of angling gear. We allude to

**THE HOOK,**

of which there are several kinds, each having its admirers. The principal sorts are the Limerick, the Kendal, the Redditch, and the Sneck-bent—all of which possess distinct peculiarities in their shape and workmanship. The chief qualities which constitute a good hook are, lightness—that it may fall upon the water without disturbing the fish; temper—that it may neither break nor bend without much force; and shape and sharpness of point—that it may hook a fish freely and hold it well. It should be so tempered as to admit of being taken by the point with one hand and by the shank with the other, and pulled asunder with some force, and, on the hold being relinquished, return to its original shape. The point should not be too long, but sharp—nothing in art requires to be made sharper—and the barb should be cut deeply and stand well off—at such a distance as to admit of the point being well buried in the mouth of a fish before it is fixed by the barb. It is obvious that this last cannot take place if the barb be not of the shape we have described. The point, too, should have
a slight lateral inclination, and the bend a wide curve. It may be that all these qualities are found, more or less, in all the different kinds of hooks we have mentioned, and that it is only custom or prejudice which has caused the belief of the superiority of any particular one over the rest.

We do not say that this is not the reason why we greatly prefer to all others the Kendal Kirby-bent hook. We have used it for twenty years, and may say, without boasting—for we intend praising the hook, and not ourselves—that we have lost as few fish, either in striking or playing them, as any brother of the craft with whom we are acquainted. We have found it, in short, to answer every purpose—to be every thing that a hook ought to be; and if our angling has not been so successful as that of others, or as it ought, with our opportunities and practice, to have been, we do not dream of blaming the hook for our inferiority. The Limerick hooks are preferred by many anglers, and, as far as temper and point are concerned, they certainly cannot be surpassed; but we object to their shape, which we think very inferior to a straight shank and a crooked bend. We refer, however, exclusively to the smaller sizes used for trout fishing, believing those for salmon flies to be infinitely superior to every other
kind. The sneck-bent hooks are in almost exclusive use in some parts of the country, particularly in the midland counties; and we are disposed to consider them more worthy of regard than their ungainly bend would induce a person unacquainted with them to suspect. They certainly hold admirably, but we do not fancy that they hook so freely as the Kirby-bent hook; and there is a very decided objection to them in their shortness of shank—to say nothing about the smallness and closeness of their barb, which, did not their sneck bend contribute so much to its holding quality, would be a serious defect indeed. But our mind has long been made up in favour of the Kendal Kirby-bent hook, and we feel confidence in recommending it. The different sizes of the Kendal hook are indicated by figures, commencing at 00 (the smallest trout size) and ending at 12. The Redditch hooks number conversely, from No. 12., the smallest, to No. 1., the largest size. The Limericks are denoted by letters of the alphabet, beginning from the smallest midge with fe, f, ff, fff, c, cc, b, and bb; after which, for the larger, or "out sizes," figures are used, commencing with 9-o (nine out, corresponding with No. 1 Redditch, or 12 Kendal), and going downward for the still larger sizes.
For trout fly-fishing the most useful size hooks are those numbered 2, 3, 4, 5, and 6 Kendal, corresponding with 11, 10, 9, 8, and 7 Redditch. We never use smaller than No. 1 Kendal, from the idea that their little bend is insufficient to retain its hold in the mouth of a strong and struggling fish. As our preference for the Kendal hook is decided, it must be understood that in future, when speaking of the size of hooks, we shall employ the numbers by which the different sizes of that particular hook are designated. The different parts of a hook, to which we shall often have occasion to refer, are shown in the annexed figure:—a the point; b the barb; c the bend; the space between d and f the shank; and e the shank-top. The diagram is not intended to represent a perfect hook.

So much for the principal articles required in fly-fishing. There remain a few other articles to complete the list, but as they are not of great importance, and as an error in their selection can scarcely be committed, we shall despatch them in a few sentences—previously reminding those who may accuse us of descending to too much minutiae, that perfection of parts makes
a perfect whole, and that the most nicely regulated affair in every other respect may be completely marred by a defect in one of its most insignificant members. Proceed we, then, to

*The Fly Book*, which should be of a rather large size (say six inches by four) and well furnished with pockets and loops for scissors, a knife, and so forth. It should number at least eight or ten leaves, made of double parchment, with pieces of cork at the corners to prevent them from pressing too closely together; and the tongues on which to coil the flies should be large and stiff. The price of such an article, in a black leather case, is about five shillings; in Russia, which is more durable, it is of course higher.

*The Landing Net* is recommended only when the banks of the river are high and the fish large. An angler whose piscatory reputation is fully established, who has taken his degree of M.A.,* 

* Master of Angling—"an honour to which no one is admitted before he has performed the qualifying act of hooking and landing, without assistance, a salmon not less than fourteen pounds weight; after which he ought, on producing his testimonium, to have the *entref* of every angling club throughout Great Britain and Ireland. Should there be no salmon-fishing in the waters where he exercises his skill, then a jack of the same weight, also taken without assistance, or a stone and a half of trout, half a
and whose judgment therefore will not be questioned, may venture on a landing net under any circumstances; but to the novice and the would-be it is a different matter. The cockneyism of the latter—an animal begirt with a capacious basket, and furnished with a folio book of flies—will, by the addition of a landing net, be complete. Often will such a wight have the mortification to be sarcastically cautioned against killing "all the fish in the river," while the sad conviction will possess him that he will doubtless return with an infinitely greater weight of tackle than of trout. Nevertheless, a landing net is useful, and may often be carried with propriety. Its ring should be made of brass or copper, and not jointed, as some are, but in one entire piece; and its size should not be too confined. A bamboo handle is the lightest and best. It should be about three feet long, and furnished at the butt end with a spike and crook, which last is useful to disengage the line when entangled in bushes. Price from eight to ten shillings.

The taste of the purchaser—and about taste,

hundred-weight of barbel, or a peck of dace, roach, or perch, caught in a day's fair fishing, not in dock or pond, may be allowed as a qualification, spécìali gratìa, for the same degree."—The Angler's Souvenir.
nil disputandum — will direct him in his selection of the "osier creel," the value of which depends upon its size, the sort of materials with which it is made, — that is, whether of whole or split withies, — and the style of its manufacture. The French excel in basket work, and the best and neatest creels sold in this country are made in France, or, at least, by French artists. A creel of the best kind, of middle size, ought not to cost more than six shillings.

Here we would advise and caution the inexperienced — and, whatever may be the imputed motive, on the honour of an angler we do so conscientiously,—against cheap tackle of all kinds. If you use it on the ground of economy, you will certainly find yourself deceived. It will prove, longo intervallo, exactly the reverse, for you will have occasion to be always buying, and will be constantly losing fish through its defects. If it cost little, it must be of inferior quality — for good materials and good workmanship cannot be obtained for a trifle, and a few shillings extra bestowed on best articles cannot be extravagant when their advantages are taken into consideration.
CHAPTER VI.

"Next pouch must not fail,
Stuffed as full as a mail,
With wax, crewels, silks, hair, furs, and feathers,
To make several flies,
For the several skies,
That shall kill in despite of all weathers."

COTTON.

We now proceed to our instructions for the manufacture of artificial flies—laying it down at the outset, as a strict condition, that all who honour us by adopting these instructions and expect us to teach what they desire to know, shall follow them implicitly in every particular, and resort to no others unless ours shall have been found to fail; that one stage of the process shall be thoroughly mastered before proceeding to another; and that these stages be mastered progressively in the order in which we have arranged them. We ask this in justice to ourselves, and will undertake the task of preceptorship on such conditions only.

Before commencing the operative part of fly-
making, it is indispensable to procure a stock of "the raw material," the collecting and arranging of which are attended with considerable interest, and afford scope for not a little taste and judgment. We shall proceed to enumerate the principal articles required, arranging them under their proper heads, with descriptions and remarks to assist the novice—premising that the fitting place in which to store the materials is a box with two or three sliding tiers or compartments one above the other, made to lift out like the box of a "wandering Jew." The upper tier should be mapped out into partitions for hooks and other small articles, and the bottom of the box should be appropriated to the larger wing and tail feathers, skins, &c., all wrapped in separate papers duly labeled. There, also, should be kept the store of hackles, in a large book, between the leaves of which the different kinds should be separately and smoothly arranged. Every care should be taken to protect the feathers, &c., from moth; no particles of flesh must be allowed to adhere to them, and musk or bitter apple should from time to time be liberally applied to them. The latter must be used with caution, being poisonous; but it is an effectual preventive and destroyer of these destructive insects.
SILK.

The bodies of some flies are imitated with this material, either in its floss state or from stout sewing silk prepared by drawing out its two or three separate strands, and using them singly in the manner of floss silk. Silk, however, is not so often used for this purpose as fur, and therefore the stock need not be very extensive. The principal colours are yellow, straw-colour, purple, brown, and claret-colour, and they can be procured at any mercer's. Good silk for tying flies is not so easily obtained. It should be of a sombre colour, such as drab, and very fine, strong, and free from dross. The last is as indispensable for waxing properly as strength and fineness are for the strength and neatness of the flies. The silk used for the finest description of kid gloves answers nearest to this description; and the strands of silk braid, drawn carefully out, are often an admirable substitute.

FUR.

This material, which is of great importance, is also used to form the bodies of artificial flies, and
MATERIALS FOR FLY-MAKING. 99

is technically called *dubbing*. It should not be very soft and sappy, so as to imbibe the water too readily, nor so stiff and coarse as to render its winding on a difficulty—although almost the coarsest hair is, by proper preparation, available in the hands of an experienced artist. This preparation, which indeed is almost always necessary, consists of breaking the fur or hair into minute pieces, and must be particularly attended to when furs of different colours are required to be mixed together. Of these, a small portion of each must be taken between the forefinger and thumb of one hand, and, with the forefinger and thumb of the other hand, be repeatedly broken up together till thoroughly incorporated with each other into a uniform mass. The furrier's shop presents the means of procuring a supply of much of this useful material, of which, indeed, a great assortment is only necessary to the fly-maker by trade. As indispensable may be enumerated the brown fur which one's wife's or sister's boa will perhaps readily furnish, albeit at the expense of a scolding if detected at the pilfer; mole and water-rat's fur, which are valuable, and fortunately obtainable without the risk alluded to in the case of the boa; a lighter blue fur than these last, which is found at the roots of the squirrel.
and rabbit's fur; flax from a leveret's head and neck; the fur of the martin-cat, which is of unequalled yellow; red and yellow hair of various shades taken from sheep-skin door mats, of which the finest in texture should be selected. A supply of all these will constitute a sufficient variety.

HERLS.

This is the name given to the filaments which spring from each side of the stem of the peacock's tail feathers, and also to the plumlets of those of the ostrich. The peacock's herls should be of a copper-colour, fine in the stem and thick and short in the downy fibre. Of ostrich feathers the most necessary colour is black.

TWIST.

This material, whether of gold or silver, should be very fine, round, and well covered with metal, so as to appear like solid wire.

HACKLES.

These are the feathers which grow upon the neck of fowls, and should be taken from the
upper part, immediately behind the poll. Hen’s hackles are preferable for wing-flies, and those of the cock for hackle-flies, such as the palmers. No part of the angler’s treasures demands greater care in selection than his hackles, which have most to do with the setting-off of a fly; for, however correct and excellent may be all the other materials of which it is composed, a bad hackle will assuredly spoil the whole, either by destroying its harmony or its neatness, or both. Colour is of first importance, after which rank shape and fineness of fibre. These last are mainly affected by the age of the bird at the time its hackles are plucked. Cocks produce the best hackles when between ten and twenty months old, when the shape of the hackles is regular, and their texture best suited for the fly-maker’s use. It is rare to meet with a perfectly shaped hackle, and at the same time good in every other respect. The common faults are, a stiffness and coarseness of the stem and of the plume fibres — invariably the case with the hackles of an old cock — and a shape broader towards the point than at the quill end. To make a good fly with such a hackle is next to impossibility. It is important that the colour be as nearly as possible the same on both sides, — not greatly lighter on the under part (or
that which grows nearest the skin) than on the upper part. There is never the same kind of gloss on the under as on the upper part, but the difference of colour is sometimes several shades, and this is not desirable. The plume fibres should be fine, glossy, and set close together on the stem, and these requisites are usually met with in the hackles of a game cock of about ten or twelve months old. The chief colour required of cock's hackles is blood-red, for palmers, with a small portion of black towards the quill. A useful sort, too, for making the same fly, is what is called the furnace hackle, or one having a blood-red ground (if the term may be allowed), with a narrow black line passing from the quill to the point on each side of the stem. It is not easy to obtain either of these kinds in perfection, but when met with they cannot be too highly prized.

As to hen's hackles, it must be remembered that they should never be taken from a hen less than two years old—an age when the cock, as a hackle producer, is becoming worthless. Hackles from a younger hen are always brittle in the stem, particularly at the point, and the plume fibres are of too soft and downy a nature. Red, yellow, black, and the different shades of blue, are the most useful colours. Light blue hackles,
tinged at their edges with a golden hue, are invaluable for a particular sort of the duns. Hens, unlike cocks, improve for the fly-maker with age, every year adding to the strength of their hackle-stem, and to the fineness of their plume fibres. The best season for procuring hackles is mid-winter, when the fowls are in full plumage. Nature will furnish sufficient variety of colour to obviate the necessity of dyeing, which gives an unnatural character to the feather, and, unless for salmon-fishing, is altogether unnecessary.

The different parts of a hackle are shown in the annexed engraving, in which a represents the quill, b the point; from d to e the stem; and c c c c c the plume.

**MATERIALS FOR WINGS.**

The wings of artificial flies are most commonly made with a portion of the feather of some bird's
wing, the wings principally used being those of the starling, moorhen, landrail, and thrush. The feathers are always best when newly procured, because they are then suffused with an oily substance which renders them compact and glossy. This shows the desirability of the stock of feathers being frequently renewed. Besides, old feathers are apt to harbour moth,—an enemy to be kept at bay only by the strictest attention and care, especially by the constant examination and turning out of the stock, and admitting into it no single article from an old or ill-kept store. The part of the feather used for wings should be so arranged, in stripping it from the stem, that the under side of the plume fibres stand outside when tied on. The starling's feather may be considered perfect, as regards quality, and it varies in shade according to the age and sex of the bird from which it is taken, the youngest furnishing the lightest. The second, third, and fourth feathers of the wing, counting from the longest outside feather, are best, though all the others are not useless.

WAX.

Common shoemaker's wax, without any prepa-
RATION, is very generally used for fly-making, and it works freest when not too new, and after good thum- 
ing before a fire. But wax of an improved kind may be made as follows:—Take equal quantities, by weight, of bees' wax and the best yellow resin, and melt them together in a pipkin. When thoroughly dissolved, pour the mixture into cold water, and, after a few minutes, take it out and work it with the fingers till it assumes a silvery appearance. Then take a piece of shoemaker's wax which has been used for a little time, and in quantity equal to this compound, and, with the hand, incorporate the two together before a small fire. If transparent wax, which will not materially alter the colour of the silk waxed with it, be required, the shoemaker's wax must be omitted; the only ingredients necessary, and their proportions, being two parts of resin and one part of bees' wax. But this latter sort is quite unnecessary, and it is far inferior to the other.

SCISSORS.

These should be long in the blades, with fine and sharp points, and should cut very keenly at the extremity—the part most used; and the
FLY-MAKING.

Artificial flies may, for convenience, be divided into two classes, requiring in their manufacture somewhat different manipulation. One class includes the hackle flies, or palmers, and the other wing flies. The latter admits of subdivision, representing the same kind of insect in two different states—at rest and in motion. In a state of rest the form and colour of the natural insect are attempted to be imitated; and in that of motion the appearance of fluttering is sought to be added. This is done by dispensing with the wing and employing instead a full and flocculent hackle wound close to the head. Flies dressed in this manner, the least employed of any, are called buzz.

There are various methods of fly-making; scarcely any two artists, indeed, working in a precisely similar manner. Some methods are very imperfect, and others are unnecessarily complicated. The method which we employ, and shall now attempt to teach, can be classed in neither category. It admits of every kind of application, no matter what the required size, shape, or material;
and for neatness and simplicity will bear comparison with the best. A test of twenty years in the manufacture of many hundred dozens of flies of all descriptions, and a careful comparison with other methods, enable us to speak with confidence. But it must not be presumed that we pretend the art can be learned without considerable practice and attention. To make a fly in a neat and truly artistic way, by however simple a method, demands the practice of months, or, in some cases, perhaps, of years; but a person determined to succeed, and willing to pay implicit regard to good instructions, will find a few weeks, or even a few days, sufficient to enable him to make a passable and "killing" fly.

What we require as indispensable to the mastery of our instructions is, the strictest compliance with every direction, however minute; constant practice of each separate stage from the first and simplest, and the proceeding to a new stage only after the preceding one is completely mastered; and, lastly, patient perseverance under any difficulties which may present themselves, but which will thus really soon disappear. Before commencing a fly, it is necessary that all the materials required for the process of making it should be selected and arranged by the artist on a table
immediately in front of him, so as to be directly under his hand; viz., scissors, hook, gut, waxed tying-silk, materials for the body, hackle properly prepared, the feather with which to form the wing, and such other materials as may be requisite for the fly intended to be dressed. The hands of the fly-maker should be fresh washed, so as to be free from greasiness or perspiration, which would interfere with the proper use of the wax; and his nails should be long and pointed. These apparently trivial hints are really of considerable importance.

TO MAKE A RED PALMER.

We shall commence our instructions with this fly, because it calls in practice most of the principal manipulations.

The selection and preparation of the hackle require the first and greatest attention, not only in the case of the palmer, but also in that of every other fly. To give an idea of the correct proportion of the hackle to the size of the hook, for a palmer (and to that fly we now exclusively confine our observations), we may remark, that the longest plumes on each side of the stem, at the broadest part, should be about equal to the length of the hook-shank, whatever its size,—that is, from the
point $f$ to the point $d$ (fig. 1.); and that the length of the stem, when the hackle is prepared for use, and exclusive of the bare quill end, should be about four times the length of the shank between these points. To prepare the hackle for use, take it with the left fore-finger and thumb, at the point $b$ (fig. 2.), and hold it firmly; then, with the right fore-finger and thumb, stroke the plumes the reverse way from their natural position, that is, from $e$ towards $d$ (fig. 2.), until they stand nearly at right angles to the stem, as shown.

The hackle thus prepared, two strands of peacock's herl, two or three inches of gold twist, the hook, gut, and waxed tying-silk (six or eight inches long, to serve for two flies), complete the list of materials for this important fly,—to the actual manufacture of which we now request the learner's attention, repeating our expression of the hope that he will follow implicitly our instructions, will master one step completely before proceeding to the next, and will consider each successive mastery in the light of an indispensable achievement.

I. *Holding the hook and applying the tying-silk.*

—Commence by taking the hook by the bend, with the point downwards, between the tips of the fore-finger and thumb of your left hand, the shank
extending beyond your fingers and pointing towards the right, in a horizontal position. With your right hand apply one extremity of the tying-silk to the middle part of the shank, holding it against the shank with the tip of the fore-finger and thumb of your left hand, as shown in Fig. 3., and, with your right hand, wind the silk up the bare shank in close coils (that is, in such a manner that each successive turn of the silk may lie side by side with the last,) to the point $f$ (Fig. 1.).

II. The Catch.—Retain the silk in that position by passing it between the third and fourth fingers of the left hand, as shown in Fig. 3. (a). This operation, called the catch, is in frequent use, and is intended to prevent the silk from uncoiling while the right hand is engaged in collecting the materials, or otherwise.

III. Putting in the gut and attaching it to the hook.—Lay the gut ($a a$, Fig. 4.) along the underside of the shank, as shown in the figure, previously flattening the extreme end with the teeth, to prevent its slipping readily. Attach it to the
hook by winding the tying-silk back tightly, in close coils, over both hook and gut towards the bend of the hook, as shown at e (fig. 5.), in which a represents the gut, and b the end of the tying-silk. Continue winding in close coils down to d (fig. 5.), being careful, during every part of the operation, when the right hand is otherwise employed, to prevent the tying-silk from uncoiling by using the catch, as before directed.

IV. Fastening the body-materials and hackle

preparyatory to winding them. — The silk is now in the proper position for this operation. Fig. 6. shows the method in which it is to be performed.
The twist and herls are to be fastened in the same way. Two or three herls are the number generally used, but to prevent confusion only one is drawn in most of our diagrams. Taking one end of the gold twist with the fore-finger and thumb of your right hand, and applying its extreme point to the bend of the hook, secure it there with two or three turns of the tying-silk in the same way that the herl is shown to be fastened in fig. 7., at a. Then take the herls, and in the same manner fasten them in by the smaller end, as already shown (fig. 6 and 7). Take two turns with the tying-silk, and then fasten the hackle by the point f (fig. 8.), with that side of the feather uppermost which grew nearest the body of the fowl. The fly in this state will present the appearance of fig. 8., in which e and a indicate each end of the herl, c and b each end of the twist, g a portion of the tying-silk, and f that part of the hackle by which it is fastened to the hook.
With the right thumb applied to the hackle, press it back as shown in Fig. 9., in which c and d represent the two ends of the twist, b and e the two ends of the herl, a the point of the hackle, and f a portion of the tying-silk. Take the tying-silk (f) between your right fore-finger and thumb, and wind it over the ends of the herl and twist (b and c) to the head of the shank. Fasten the tying-silk there by placing it between the head of the shank and the gut, as shown at a (Fig. 10.), and cut off any
superfluous portion of the herl and twist that may remain at that place. This mode of securing the silk may also be resorted to when you require to lay down your work, from fatigue or otherwise, and is frequently called into use.

V. *Winding the herl to form the body.* — Now take the end of the herl \( e \) (fig. 10.), and commence winding the herl, closely, up the shank, as in fig. 11., using the stop* at

* This operation is performed by pressing tightly against the hook-shank, with the tip of the second finger of the left hand, the tying-silk, herl, or other material employed, as shown in fig. 12. The object is to prevent the material from uncoiling when you relax your hold of it with your right hand, which, in winding herls, &c. you must do at every turn to prevent their becoming twisted.
every turn. Continue winding as far as the point *a*. There *stop*, as directed in the footnote, and taking the tying-silk *b* in your right hand, remove it from between the gut and head of the shank at *c*; pass it two or three times round the hook, gut, and end of the herl at *a*, and then secure the silk by placing it between the gut and head of the shank, as before, and cut off what remains unwound of the herl.

**VI. Winding the twist.** — The fly will now appear as *fig. 13.*, in which *a* represents the gut, *b* a portion of the tying-silk, and *c* the gold twist. Take the twist *c* in your right hand, and wind it up in *open coils*, as in *fig. 14.*, and

![Fig. 13.](image1)

![Fig. 14.](image2)

fasten it in the same way as you have been directed to fasten the herl; afterwards securing the tying-silk between the gut and head of the shank, and cutting of the superfluous twist.
VII. Winding the hackle.—Keep the hook in the same perfectly horizontal position, in the left hand, as we suppose you to have done during all the previous operations, and taking the hackle by the stem (a, fig. 15.), commence winding it up the body, taking a turn between each coil of the twist, till you come to the point d; stopping it, of course, at every turn, and arranging the fibres, as you proceed, that they may lie evenly and smoothly, turn after turn. From the point d to the point b wind what remains of the hackle in close coils, so that it shall be all exhausted at the last named point. Stop it there and employ the catch to hold down the silk c at the same time. Push the fibres of the hackle in their proper position, making them cover the body smoothly and regularly, and keep them down in that position by covering them with the tips of your left fore-finger and thumb. Then, still holding them down in this way clear of the shank-top, the tying-silk being also tightly held by the catch, let go the stop and draw the stem of the hackle up, to bring it under the last turn of the silk; stop it there, and make two
or three turns with the tying-silk over the stem of the hackle and the bare shank-top, as shown at c (fig. 16.). Use the catch, to hold the tying-silk down out of the way, and pull the stem of the hackle in order to be sure that you have it close upon the shank; for, unless this care be taken, it is liable to uncoil while fastening. Cut off the superfluous stem, take another turn or two with the silk, and fasten off with two half-hitches, thus: — Stop the last coil of the tying-silk, and throw the silk over in the direction of the arrow in fig. 17., in the form of a ring. Again stop while you pass the end b (fig. 17.) through the ring, and draw it tight. The head of the fly, if finished properly, will appear as fig. 18.

TO MAKE A BUZZ-FLY.

The making of a palmer will have taught so
much of the general manipulations of fly-making and their principles, that very little remains to be done in order to apply them to every description of fly. A buzz-fly (fig. 19.) is much easier to make than either a palmer or a wing-fly, on account of the less troublesome character of the hackle in the one case, and the less number of materials in the other.

Proceed exactly as directed for the palmer, except that the hackle must be tied in about half way up the shank, instead of at the bend, as d at (fig. 20.). If you make the body of herl, or of silk, tie it in as for the body of the palmer; but if the body is to be of dubbing, a few fibres of that material must be formed, by twirling them between the fingers, into a mass of a taper form and double the length of the part of the shank you intend to cover with the body (c, fig. 20.). Of course, if you want a thick or thin body, the quantity of fur must be proportioned accordingly; practice will
soon enable you to judge to a nicety of the proper quantity. When you have arrived at the stage of the process at which the materials for the body are to be tied in (viz., after the hook and gut are attached), and have there fastened the silk or other material for rib, if required, take the dubbing and apply its finer end to the bend of the hook, from which the tying-silk is depending, and, with the finger and thumb of your right hand, twist the dubbing and the silk together evenly and not tightly, and wind both, thus twisted together, up the shank, to form the body, fastening the hackle in your way upwards, with one turn over its point, at d (fig. 20.), and continuing to wind the dubbing beyond it to the top of the shank. There, between the gut and shank-top, leave the tying-silk, which you must be careful is now free from any particles of dubbing, or the neatness of the head will be destroyed, and proceed to wind up the rib in the manner before directed for winding the gold twist of the palmer, and fasten it at the head in the same way; completing the fly by winding the hackle in close coils to the head, and securing it there with half hitches.

Buzz, as well as wing-flies, generally require whisks, which are intended to imitate the setae or
tail-like appendages of the natural insect. These must be tied in, at the bend of the hook, immediately after the first operation of attaching the hook and gut, and before the tying in of the materials for the body. Two turns of the silk are sufficient to secure them; indeed, you must be sparing of winding the tying-silk too much at this end of the body, or you will make the fly clumsy at the very place which ought to be particularly fine and neat.

TO MAKE A WING-FLY.

The operations are the same as those for making a buzz-fly, as far as they go, the only difference between the two classes being the addition of wings; except that the hackle, which in the wing-fly is intended to represent legs only, should have less plume, and be altogether on a smaller scale than for a buzz-fly made on a hook of the same size. This is illustrated in fig. 21., in which a represents a hackle prepared for a wing-fly, and b one prepared for a fly made buzz. The tying on of the wing must be effected after the hackle is wound and fastened, taking care that sufficient head-room be left for
the purpose. We mean by head-room the bare part of the hook shank at the top, where the head of the fly is represented and the general fastening off is performed.

*To prepare the wing.*—With the fore-finger and thumb of your left hand take by the shortest plumes (a, fig. 22.) a wing feather of the kind required, and with the thumb and fore-finger of your right hand stroke a portion of the plumes of the opposite side (rejecting the extreme part nearest the quill) till it stands at right angles with the stem, as b. Select a proper quantity (somewhat less than that shown in the figure) and bring it even at the points, being careful not to disarrange the fibres, as regards their cohesiveness. Pinch it tightly, to prevent any slipping, and with a sudden motion strip it cleanly off. Fold it so that the undermost side of the fibres (the side which grew nearest the body of the bird) may stand outward, and press it with the thumb-nail at the point round which the tying-silk will pass in tying it on (b), that it may lie the neater. When thus prepared it will resemble fig. 23.
Tying on the wing.—Holding the hook firmly in your left hand, take the portion of feather thus prepared, by the point b, with the finger and thumb of your right hand, and lay it along the back of the hook in the position shown in fig. 24. While doing this, and before loosening your hold of it, take the hook at the head of the shank with the tips of the same fingers, and support the hook in this way while you shift your left finger and thumb up close to the end of the wing, that is, getting the whole of the fly between the points of your finger and thumb, except the shank-top and the superfluous portion of the wing projecting beyond it. Pass the tying-silk over the wing, at the place which you had previously indented with your thumb-nail in preparing the wing, viz. at b, fig. 24. Draw the silk tightly down, and the fly will appear as fig. 25. Take another turn and throw a half hitch. Then, with the scissors, cut off, very cleanly, the superfluous end of the feather close to the head of the
hook, and wind the tying-silk neatly over, fastening off with another half hitch or two, as directed for finishing the palmer.

The tying on of the wing is by no means an easy operation, and we advise our pupils not to attempt it till they have attained considerable proficiency in all the other operations.

Before concluding this subject, we should perhaps remark that all our diagrams are purposely drawn on a large scale, with the view to their being the more clearly understood.

Angler! in the present and two preceding chapters thou hast instruction for the purchase and manufacture of all thy piscatory gear. Provide it, and betake thyself to the clear and limpid stream which onward flows so playfully this balmy April morning,—joining its murmurs with the song of birds, the hum of insects, the breeze which plays among the branches, and all the other instruments that tune forth Nature's music! There, with patient mind, and eager hand, and anxious eye, commence thy gentle pupilage. May thine be speedy progress and proficiency full soon! Go on with sober earnestness and more and more enthusiasm,—absorbed not wholly by thy fascinating art, but finding room, amid thoughts engendered by Creation's beauties, for wider sympathies and upward aspirations!
CHAPTER VII.

"When doctors disagree, 
Disciples, then, are free."

Old Adage.

In this chapter we shall present our readers with what we deem an ample list of flies for all the rivers in the kingdom, and also with a full enumeration of the various materials of which each particular fly should be composed, premising a few remarks on imitation, a subject upon which much diversity of opinion exists.

We have quoted, in our second chapter, the theory of Professor Rennie, which is directly opposed to the notion of exact imitation, and to that of the fish taking an artificial fly in mistake for a peculiar species of its own natural prey. The grounds on which that theory is founded, namely, the defective vision of fish, and consequently their physical inability to distinguish the different species, even if they had a preference for particular kinds, are also given at length; and on this
point we have, in the same chapter, ventured briefly to remark. We now resume the subject, but without pretending to enter into an examination of the different notions entertained, much less those of any particular author. We shall simply write what our experience has led us to consider true, and what we believe to be not opposed to nature and to reason.

At the outset, then, we unhesitatingly say that much of the exact imitation system appears to us very much like quackery. We have been for twenty years mixed up with anglers of different grades of intelligence and skill, and have invariably found that what is commonly called imitation—namely, an old-womanish fastidiousness about the minutest colours, the most daguerreotype copy of some fancied fac-simile of nature, selected as a "pattern fly,"—is by no means a proof of the existence of a commensurate amount of practical skill and consequent success. As a general rule, and for ordinary circumstances, we believe that a very few sorts of flies (say the red palmer and the duns) are sufficient for every useful purpose. But there are peculiar circumstances, arising from the natural fastidiousness of trout in the waters of England, at all events, and also from the variations in the state of the
water and of the atmosphere, which occasionally render necessary a greater variety.

But first we must explain what we mean by imitation. Believing it impossible to fabricate an exact imitation of a natural insect with any materials in use, or, if otherwise, taking for granted the difficulty, if not, in most cases, the impossibility, of imitating, in the process of fishing, the motions and attitude of a natural fly upon the water, our first object is to make as near an approach to these as we are able, and to conceal, by the effect of art, the imperfections which must be obvious to every one. And this we would do, with reference to fly-making, on the same principle as that on which an artist would paint a tree; for instance, he would not dream of copying in detail every separate leaf and spray,—first, because it would be manifestly impossible, and, secondly, because the proper effect would be produced by representing the general features of leaves and sprays, their groupings, roundness, height, flexibility, and the like. And so, as regards flies, we conceive the main points of imitation to be size, colour, form, character, and more important than all, action,—which last depends, of course, upon the angler, and not upon the fly-maker. Many anglers (fanciful ones and
ultra-imitationists) entirely blind themselves to this latter circumstance. "Because A. caught fish yesterday with a particular fly," argue they, "therefore B. must do so to-day." But it turns out that B. does not do so, that he fails, and perhaps wholly so because he could not, or did not, supply this very important part of imitation—action. We suppose everything to be equal in the case of these imaginary persons except skill, or something else on which this action depended. Every angler of the smallest experience must know how convenient it is to attribute unsuccessful fishing to the fly alone, and how very frequently it is unjustly done.

It is the general characteristics of the natural fly which alone ought to be, or indeed can be, imitated; for all insects, especially those which belong to the category of the fly-fisher, are distinguished for their beauty of form and delicacy of construction. Let us, however, refer to what we have called the "main points" of imitation. **Size:**—this needs no more remark than we shall make elsewhere with reference to the adaptation of the fly to particular states of the water and atmosphere; **Colour:**—it is important, in imitation, to observe whether the general colour of the natural insect imitated be light or dark, warm or cold; and
OUR OPINION OF IMITATION.

Form:—whether the wings are large or small in proportion to the body,—whether they lie flat upon the body or stand erect,—whether the body is slender or thick. All these peculiarities, which together constitute the character of the insect, can be represented without counting the exact number of legs, or microscopically examining the fibres of the wings; on the same principle that, in individual portraiture, what is alone sought to be attained is not minute imitation, but individual character and expression. How does a man recognise his friend at a distance?—From that particular individuality which distinguishes every one, and which is made up of peculiarities of gait, contour, and so on. Precisely so is the principle on which artificial flies should be imitated, for it is that, in all probability, on which they prove successful lures to fish. They are not, they cannot be, exact imitations of natural insects; but their resemblance in general character is sufficient to produce the required deception, and that resemblance is by no means difficult of accomplishment by an experienced artist. Again, it is not necessary, in the construction of an artificial fly, that every part should be of the same colour as the part of the natural fly particularly represented; it is sufficient that the general hue be obtained.
For example, if the insect imitated be of a warm or reddish hue, that colour must enter prominently into the composition of its artificial imitation, but not necessarily in the same identical part. In the natural insect it may be the body or legs which have this colour prominently, but enough will have been done with its "counterfeit presentation" if it be found sufficiently predominating in the whole production, no matter whether displayed in the legs, or body, or elsewhere. The same with every other hue.

It is perhaps important that the character of the wing be attended to as regards its opaqueness or transparency; and it may be remarked on the form of the artificial fly, that as it is impossible to dress it sufficiently delicate to equal nature, it becomes necessary to exaggerate some parts, so as to produce a proper harmony and proportion in the general form; as, for example, making the wing longer, it may be, than the natural wing, in order that the fly may appear more elegant and bear a more correct proportion to a body unavoidably thicker, from the nature of its materials, than that of the natural fly.

So much for the general principles on which we suppose the imitation of natural flies to be founded. We have already expressed our opinion
as to the occasional necessity for using imitations of prevailing species, and have laid down the general rule of confining the sorts of flies in common use to a very limited number. It is impossible to give *infallible* directions for the use of particular flies at *every* particular time, although we shall elsewhere do all we consider necessary. Much must be left to the angler's own judgment; but we advise him to be careful of falling into the error of constantly changing his flies when fishing, thereby perplexing himself, and, generally speaking, wasting time. Fish are proverbially capricious; and many of their habits, in regard to feeding and otherwise, depend on circumstances which, with all our knowledge of natural history, are not understood. The angler, therefore, must not be too ready to attribute his want of success at any time to a mistake in the selection of his fly. There are many circumstances to which it may with greater justice be traced. For instance, a certain fly is often thoughtlessly said to be refused by fish on the *sole* account of its dissimilarity to some supposed favourite species, when a little observation would lead to another conclusion,—a conclusion perhaps very different from the probably correct one, in many cases, of the unskilfulness of the angler.
But supposing this to be otherwise,—supposing even the angler to be expert, and to have a good imitation of the fly at which the fish are rising well,—say a fly of the dun tribe, prevalent on every water. He makes his casts admirably. In the gentle stickle which hugs the opposite bank, a line of trout are rising gloriously; but not one of them is attracted by his well-presented lure. He throws, and throws, and throws again, but still with the same result. He is at a loss to account for the cause, except that it must evidently be something or other wrong in his fly. No such thing. We admit the fly to be a good imitation, to be nicely cast over rising fish, repeatedly, time after time, and yet with not a rise is poor Piscator favoured. Well, how is this? Piscator does not see—he is so wrapped up in the make of his fly—that something more than make is necessary; that under certain circumstances an imitation of the action of the natural fly is indispensable, and that when that action is not supplied, as in the present case, success cannot be had. But Piscator should reflect, and the seeming "mystery would be unfolded thus:—The fish are feeding, as they delight to do, upon flies ephemeral, and have, perhaps, as the season is advanced, become somewhat fastidious in their...
selection of particular species. Well, at the time in question, the line of fish in the stickle under the opposite bank aforesaid, are gastronomically moved towards a certain species of the class of flies referred to, every one of which is characterised by the habit of floating upon the surface of the water, in reverse of the phryganidæ, which generally hover above it, and flit about the banks. Impelled by some peculiarity of the atmosphere, or by some other cause which we cannot, and need not if we could, explain, the fish have come close to the surface to watch for their prey, which can thus be easily seized as the victims float along, without further trouble on the part of the fish than gently lifting their mouths above the water. Now, the angler’s fly is wet and heavy, and, thrown from the other side, has a certain weight of line in addition. So, as it is not in the nature of things that this soaked artificial fly can swim upon the surface as the natural ones do, it follows the alternative and sinks below the rising fish, the notice of which it entirely escapes, because they happen just then to be looking upwards for the materials of their meal. Let a dry fly be substituted for the wet one, the line switched a few times through the air to throw off its superabundant moisture, a
judicious cast made just above the rising fish, and the fly allowed to float towards and over them, and the chances are ten to one that it will be seized as readily as a living insect. This dry fly, we must remark, should be an imitation of the natural fly on which the fish are feeding, because, if widely different, the fish, instead of being allured, would most likely be surprised and startled at the novelty presented, and would suspend feeding until the appearance of their favourite and familiar prey.

We mention this as an illustration of the importance of imitating action, and must not be understood to recommend the constantly substituting of a dry fly for a wet one, over every rising fish. Better, as a general rule, when the angler, after a few casts, finds the fish over which he throws unwilling to be tempted, pass on in search of a more willing victim. This caution is the more necessary, because anglers too often expect to take every rising fish over which they throw; whereas it is really only under particular circumstances, and in favourable situations, that the motions of the natural insect can be so imitated as to prove successful, unless the fish are ravenous and seize everything presented to them,—a state of things not often experienced.
There is much common sense in the following remarks by a writer in the "Sporting Review":—
"A fish, as may be witnessed from a bank, when on the feed, lies with his nose peering over a shore or ledge of rock, and pointed up the stream, ready to take the flies as they float downwards, provided there be nothing obtrusive in their appearance to awaken his suspicions and restrain his appetite until the fly is past. The object is not so much to awaken his appetite by a fly more attractive than the natural one, which you can hardly expect to achieve, as to avoid startling the fish when he has seen your fly, and would take it, among others, if there were nothing obtrusive in its appearance."

For this reason we recommend imitations of the duns as standard flies. There is not a river in the kingdom on which some species of this beautiful tribe of ephemeral flies is not to be found daily throughout the fishing season, and generally more numerously than any other fly. The fish are familiar with and fond of them, and their varieties are extremely numerous. We have for many years fished with hardly any other flies than the red palmer and some shades of the duns, lighter or darker, larger or smaller, according to the particular states of the water and
atmosphere, and the result is, our full concurrence in the remark of Mr. Ronalds, that "the duns form the sheet-anchor of the fly-fisher's practice."

Our pupils, after all we have said, must understand us to lay down these principles:—1. That trout can discriminate species, and have preferences for particular flies under particular circumstances. 2. That imitations of some of the principal species are necessary for successful practice. 3. That imitation consists not of a slavish copying of detail, but an expression of the general character of the fly imitated. 4. That besides specific imitation of the fly, an imitation of its action in the water must be included; and, 5. That a difference in the imitation of that action (all other circumstances being equal) constitutes, to a great extent, the various grades of skill possessed by different anglers.

Before leaving this subject, it may not be amiss to correct a notion very commonly entertained by many even experienced anglers, that artificial flies become darker and collapsed when in the water. The simple experiment of examining an artificial fly in a tumbler of water will show at once that this notion is entirely unfounded.
We shall now proceed to give a list of flies, with the proper materials for dressing them artificially, reserving for the concluding chapter some remarks by which to direct the angler in his selection of particular kinds for particular occasions, and only reminding him here once more of the necessity of never forgetting how much would at all times depend upon the exercise of his own judgment, even if our instructions were, what nothing human can be,—to wit, perfection.

1. *The Early Red.*—Body to be made thickly of the red part of the squirrel's fur, or of hair from a red sheep-skin door-mat, well broken up together before using. Legs, a red hen's hackle. Wings, from the woodcock's wing-feather, to lie flat and be shorter than the body. Hook, No. 3. Kendal.*

* Although we give the size of the hooks on which to dress the different flies in our list, it must be understood that those sizes are by no means definite, but are intended rather to guide the angler in forming his own judgment as circumstances may require a deviation. Generally speaking, the sizes given should be adopted, as agreeing nearest with those of the particular insects imitated; but they must be varied to suit the peculiarities of water and atmosphere at the time of fishing,—increased, for instance, when the water is stained, and also when the atmosphere is very gloomy, and the wind high,—and diminished (using very small and fine hooks) when the water is low and the sky
2. The Blue Dun.—Whisks, two fibres of a large hackle, from a blue cock. Body of fine blue fur from the hare or squirrel, ribbed with fine yellow silk thread. Legs, a blue hen's hackle. Wings, from the starling's wing-feather. Hook, No. 2. or 3.

This fly may be varied by using water-rat's fur for the body, a dark blue hackle for legs, and moorhen's wing-feather for wings.

The wings of every species of dun-fly stand erect upon their backs, and must be so placed in their imitations.*

3. Another Blue Dun.—Whisks to match the legs. Body of peacock's herl stripped of its down,—the first turn or two at the bottom white, to form what is called a tag. Legs, a blue hen's hackle. Wings, from the starling's wing-feather; or, if the body and legs be dark, from the moorhen's wing-feather. Hook, No. 3.

4. The March Brown, or Brown Drake.—Whisks, two fibres of the hen pheasant's tail-feather. Body, brown fur from a brown sable muff or boa, ribbed with yellow silk thread. Legs, a brown-red hen's hackle. Wings placed upright clear. Ordinarily, we use small flies dressed on the finest gut, and do not approve of very large flies at any time.

* See Chapter III.
and taken from a woodcock's wing-feather. Hook, No. 4. or 5.

5. The Sand Fly.—Body of the sand-colour fur from a hare's poll. Legs, a light red hen's hackle. Wings, from a landrail's wing-feather. Hook, No. 3.

6. The Grannam, or Green-tail.—The lower part of the body is made of two or three turns of dark green floss silk, forming a tag, and the rest of the body of fur from a hare's ear. The legs are imitated either by picking out this fur with a needle, so that the fibres may stand out roughly to resemble a hackle, or else with other fibres tied in after the body is put on—a somewhat difficult operation for a novice,—or a small dark partridge hackle may be wound on. Wings, from the wing-feather of a partridge or hen pheasant, to lie flat along the back. Hook, No. 3.

7. The Hare's Flax (the Male Grannam).—The body may be made either of straw-colour floss silk, or of fur from a hare's ear, ribbed with yellow silk thread. Legs as for the grannam. Wings, from a wing-feather of the woodcock, to lie flat along the back. Hook, No. 3.

8. The Whirling Dun.—Whisks from a red cock's hackle. Body, blue fur from a hare or squirrel's skin (found among the roots and col-
lected with a small-tooth comb). Legs a blood-red hen's hackle. Wings from a starling's wing-feather, to stand erect. Hook, No. 2. or 3.

9. The Cow-dung Fly. — Body of yellow mohair mixed with red hair from a door-mat, wound rather thickly. Legs, a ginger hen's hackle. Wings from a very light starling's wing-feather, not longer than the body, and placed to lie flat along the back. Hook, No. 3.

10. The Yellow Dun. — Whisks, from a large yellow hackle. Body, yellow martin's fur, mixed with a little light blue fur from the hare, rabbit, or squirrel, and ribbed with yellow silk thread. Legs, a very fine light blue hen's hackle. Wings from the thrush or starling's wing-feather, to stand erect. This fly should be dressed very neatly and fine, on hook No. 1.

11. Iron Blue Dun. — Whisks, from a red cock's hackle. Body, water-rat or mole's fur, ribbed with yellow silk thread. Legs, a blood red hen's hackle. Wings, from a wing-feather of the moorhen or of the skitty, to stand erect. This is, like the last, an exceedingly fine and delicate fly. Hook, No. 1.

12. Spider Fly. — Body of lead-colour floss silk. Legs, a black hen's hackle. Wings from
the woodcock's wing-feather, to lie flat along the back. Hook, No. 2.

13. *The Stone Fly.* — Body of brown fur from a sable boa, mixed with yellow martin's fur, and ribbed with yellow silk thread. Legs, a grizzle hackle; that is, one speckled blue and yellow. Wings, from the wing-feather of a woodcock, made full and to lie flat. Hook, No. 5. or 6.

We never use this fly ourselves, but it is thought a great deal of by some anglers, and on some streams, particularly on the heavy and bushy ones of Dorsetshire and Hampshire.

14. *The May Fly.* — This beautiful insect is imitated in a variety of ways, according to the fancies of different makers. Our own method, it must be admitted, has the advantage of simplicity, and it is suggested, as all our imitations are, by the only proper prototype — the natural insect itself. Whisks, three stout black hairs, about half an inch long, taken from the fitchet's tail or from a black muff. Body, straw-colour floss silk or martin's fur, ribbed with brown silk thread. Legs, a ginger hackle. Wings, two dappled feathers, taken from below the wings or from the bottom of the neck of the mallard, dyed greenish yellow, by boiling them in an infusion of the
inner bark of the crab-tree or of the barberry-tree, with a small piece of alum, to fix the colour. The plume part of the feathers selected should, when prepared for use, be about the size of a sixpence, and be tied back to back, so that they may stand off on each side of the fly. Hook, No. 6., technically called, in the Kendal sizes, "Long May," in allusion to the greater length of the shank than that of the ordinary hook. Perhaps a Limerick hook, for a fly of this size, is preferable.

15. The Grey Drake.—This fly must be dressed in the same style as the preceding. Whisks, three black hairs, longer than those for the May fly. The body may be imitated with a white ostrich's herl, or white floss silk, ribbed with a black horse-hair. Legs, a dark blue hackle. Wings, two mallard's feathers, not dyed, or two mottled feathers from the widgeon, tied on in the same way as directed for tying on the wings of the May fly. Hook, No. 6., "Long May," or, better, a Limerick of the corresponding size.

16. The Alder Fly.—Body of copper-colour floss silk. Legs, a black hen's hackle. Wings, from a wing-feather of the woodcock, to lie flat along the back. Hook, No. 4.

17. The Red Ant.—This is an imitation of
the well-known red ant, in its winged state, when it is often blown upon the water, and becomes the food of trout. It is one about which we are indifferent, as we are also about that of the Black Ant. We enumerate these sorts, with some others,—particularly Nos. 6, 7, 9, 13, 20, 21, and 26,—more for the sake of a good variety from which a selection for all rivers may be made, than for any value in which we hold them as regards our own practice, or, indeed, than for any necessity for so many sorts as the whole list, for the rivers of any one locality, or even speaking generally. Body, copper-colour peacock's herl, wound thickly for two or three turns at the bottom, to form a tuft or tag; the rest of the body dark red silk. Legs, a very small red hen's hackle. Wings, from the wing-feather of the jay, to lie flat. Hook, No. 1. or 2.

18. *The Black Ant.*—Body, tuft or tag of black ostrich herl, the rest of the body black silk. Legs, a small black hen's hackle. Wings, from a wing-feather of the jay, to lie flat along the back. Hook, No. 2.

The well-known form of the ants will readily suggest the character of their imitations.

19. *The Red Spinner.* — Whisks, two fibres of a red cock's hackle. Body, any fine red fur, or
dark red silk, ribbed with fine gold twist. Legs, a red hen’s hackle. Wings, from a wing-feather of the starling, placed erect. Hook, No. 2. or 3.

20. *The White Spinner.* — Whisks, from a white cock’s hackle. Body, very light blue, nearly white, fur from a rabbit’s skin, ribbed with the finest silver twist. Legs, a white hen’s hackle with a black list,—that is, black on each side of the stem, throughout, and tipped with white, wound thickly close to the head. Dressed buzz fashion. Hook, No. 2.


22. *The Welshman’s Button,* or *Hazel Fly.* — This is a small beetle often blown upon the water, and the combination of materials which we recommend for its imitation produces a very harmonious whole, and renders the fly a favourite on many waters in a blowing showery day in summer. Body, a black ostrich herl and a copper-colour peacock’s herl wound together, thickly. Legs, a black hen’s hackle. Wings, from the red feather of a partridge’s tail, short, and placed flat upon the back. Hook, No. 3. or 4.
23. *The Autumnal Dun.*—Whisks, from a very light blue hackle. Body, very light blue fur, or even the fur from an old white hat. Legs, a very light blue hen's hackle. Wings, from a wing-feather of the snipe, fieldfare, or starling—very light. Hook, No. 1.


25. *The Blue Palmer.*—Body, blue fur from the rabbit, hare, or squirrel, ribbed with gold or silver twist. Legs, a blue cock's hackle wound from the bottom. Hook, various.


27. *The Partridge Hackle.*—Body, light brown fur from a sable boa, ribbed with gold twist. Legs, a partridge's nutmeg-brown, mottled feather, taken from the back. Dressed buzz. Hook, No. 3. This is a favourite fly of ours, as the dropper, for summer evening fishing. It is called by some the London Spider.

28. *The Coachman.*—Body, peacock's herl. Legs, a red hen's hackle. Wings, from the white
part of a feather from the magpie's wing. Hook, No. 4. or 5.

29. The Walton.—Body, light brown fur from a sable boa, either ribbed or not with gold twist. Legs, a brown or yellow hen's hackle. Wing, from a light wing feather of the woodcock. Hook, No. 3.

Such is the list of flies which we deem sufficiently ample for every useful purpose. We shall now arrange it in tables, which will show at a glance the materials of which each fly is composed, and thus spare the artist the trouble of turning over the leaves, except for the purpose of more circumstantial directions. The asterisks (*) in these tables indicate the flies which require whisks. These, in most cases (Nos. 4, 14, and 15. are the only exceptions), are to be made with two plume fibres of a large hackle of the same colour as that used to imitate the legs.
<table>
<thead>
<tr>
<th>NAME.</th>
<th>BODY.</th>
<th>HACKLE.</th>
<th>WINGS.</th>
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<tbody>
<tr>
<td>2. Blue Dun.*</td>
<td>Fine blue fur, ribbed with yellow silk thread.</td>
<td>Blue, to match the body.</td>
<td>Starling.</td>
</tr>
<tr>
<td>3. Another Blue Dun.*</td>
<td>Peacock's herl stripped of its down.</td>
<td>Dark blue.</td>
<td>Starling, or if dark body, moorhen.</td>
</tr>
<tr>
<td>7. Hare's Flax.</td>
<td>Hare's fur, or, for variety, straw colour floss silk.</td>
<td>The same.</td>
<td>Woodcock.</td>
</tr>
<tr>
<td>NAME</td>
<td>WINGS.</td>
<td>HACKLE.</td>
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<tr>
<td>10. Yellow Dun.*</td>
<td>Light starling.</td>
<td>Very light blue, tinged at the tips with yellow.</td>
<td>Light blue and yellow fur mixed together, and ribbed with yellow silk thread.</td>
</tr>
<tr>
<td>15. Grey Drake.*</td>
<td>Dark grey widgeon or mallard's feather.</td>
<td>Black, or very dark blue.</td>
<td>White ostrich hurl, or white floss silk, ribbed with a black horschair.</td>
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</tbody>
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## TABLE OF FLIES.

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<thead>
<tr>
<th>NAME</th>
<th>WINGS</th>
<th>HACKLE</th>
<th>BODY</th>
<th>NOTES</th>
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</thead>
<tbody>
<tr>
<td>18. Black Ant</td>
<td>Jay</td>
<td>Black</td>
<td>Black silk, with black ostrich</td>
<td>herl worked thickly at the</td>
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<td></td>
<td></td>
<td></td>
<td>tail, ribbed with fine gold</td>
<td>tail.</td>
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<tr>
<td>19. Red Spinner.*</td>
<td>Light starling</td>
<td>Red</td>
<td>Fine red fur, or dark red silk,</td>
<td>White with black</td>
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<td></td>
<td></td>
<td></td>
<td>ribbed with fine gold twist.</td>
<td>close to the head.</td>
</tr>
<tr>
<td>20. White Spinner.*</td>
<td>Magpie, white part</td>
<td>Black</td>
<td>Very light blue (nearly white)</td>
<td>Red feather from a</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>fur, ribbed with the finest</td>
<td>partridge's tail.</td>
</tr>
<tr>
<td>NAME.</td>
<td>WINGS.</td>
<td>BODY.</td>
<td>HACKLE.</td>
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</tr>
<tr>
<td>23. Autunmal Dun.*</td>
<td>Light starling, or field-fare.</td>
<td>Very light blue fur.</td>
<td>Very light blue, to match the body.</td>
<td></td>
</tr>
<tr>
<td>28. Coachman.</td>
<td>Light brown fur, either ribbed or not with gold twist.</td>
<td>Light brown fur, either ribbed or not with gold twist.</td>
<td>Light woodcock.</td>
<td></td>
</tr>
<tr>
<td>29. Walton.</td>
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CHAPTER VIII.

"With pliant rod, athwart the pebbled brook,
Let me with judgment cast the feather'd hook;
Silent along the mazy margin stray,
And, with a fur-wrought fly, delude the prey."

Gay.

Having given, in the preceding chapters, what we hope will prove sufficient instructions for the selection and manufacture of the various implements employed in fly-fishing, it is now our business to explain their use. But we must first remind the reader that a knowledge of the art is not to be acquired from the simple perusal of rules and instructions, any more than a person can learn to swim without entering the water. That knowledge can only result, as in every similar case, in proportion to the display of judgment in applying and of industry in practising them. "He," saith our father Izaac, "who undertakes to make a man that was none to be an angler by a book, will undertake a harder task than Mr. Hales, a most valiant and excellent fencer, who, in a printed
book called 'A Private School of Defence,' undertook to teach that art or science and got laughed at for his labour; not but that many useful things might be learnt from that book, but he was laughed at because that art was not to be learnt by words but practice—and so must angling. Seeing," addeth Izaac, "that as no man is born an artist, so no man is born an angler, I thought fit to give thee this notice."

There was formerly a prejudice against the seeking in books for angling instructions, as, indeed, there was against book-learning of every kind; but happily the day is gone to render necessary anything like argument to show the folly of such a prejudice. There is no earthly reason why a book on this subject should not be just as useful to a young angler as other books are to the seeker after other kinds of information; nor why the experience of anglers should not also be preserved and communicated by means of the printer's art, as well as that of others whose writings "the schoolmaster" has prepared most people, now-a-day, to comprehend and profit by.

We take it for granted, therefore, that while it is quite possible to write a good and an instructive book on this fascinating art, the precepts of that art will be comparatively valueless if not prac-
tically applied as well as studied, in the same way that all merely theoretical knowledge is, à priori, inferior.

Throwing the line claims our first attention, for a perfect knowledge of that process is the first thing to be acquired by the tyro in fly-fishing. "You may have," says Fitzgibbon, "the best rod and tackle that ever appeared on the banks of the Dove, and you may have 'toleration' to fish in the most closely preserved parts of that lovely stream — in those parts that are absolutely alive with trout and grayling — but if you do not know how to throw, cast, or fling a line in the manner of an artist, you will not be able to make a single fin show itself above the surface of the water. 'He throws a fly as well as any man in England,' is a common eulogistic expression, as if perfection in that single operation was a guarantee that the adept was equally skilled in everything that pertains to his art. It is tantamount to saying he is the best fly-fisher in England."*

* While we are quite willing to admit the great importance of throwing the line, it would be contrary to our experience to say that we agree, in toto, with the writer whose remarks we have quoted in the text. The mechanical act of throwing the line may be acquired by many a man who is too clumsy or impatient, or who does not possess sufficient judgment, to play and land a fish in a
THROWING THE LINE.

We presume that it would be something like a waste of time to give directions for putting together the rod, fastening on the reel, passing the line through the rings, and so forth. These simple processes may be learned in a few moments from the person from whom you purchase your fishing gear; or rather, we ought perhaps to say, that if they do not suggest themselves to the tyro, he will have a hard task to understand and master the instructions necessary to make him an accomplished craftsman, depending, as they must obviously do, so much upon the exercise of his own ability and judgment.

We proceed, then, with more important instructions, which we shall convey in as graphic and familiar a manner as we are able.

* * * * *

O! here you are, gentle Tyro, awaiting your Magister — basket, landing-net, and all. Verily, you are well caparisoned, and I hope will not realise the epigram—for young anglers often do—

"Arm'd cap-a-pie with baskets, bags, and rods,
The angler early to the river plods;
At night his looks the woful truth announce,
The luggage half-a-ton, the fish — an ounce."

proper manner, and who, therefore, cannot be allowed the slightest claim to the title of a skilful angler, though his throwing be unexceptionable.
But be not dispirited—attend to me, and we will see what can be done. Here we are by the river's side—our rods together, and our lines and collars ready for action. Stop! do not be impatient; you see, that unlucky attempt will give you five minutes' amusement in disentangling your line. You must watch my movements attentively, and understand my instructions, before you proceed to exhibit. You perceive that I grasp my rod firmly, with my right hand, just above the reel—the line being passed between my fingers and the rod, to prevent it from running out ad libitum. A sharp impulsion of my wrist sends the rod back over my shoulder, and the line unfolds itself behind me. Pausing a single moment, I bring it forward in the same manner; and when the line comes about a yard above the surface of the water, in its descent, I suddenly check the movement of my arm, which causes the line to remain hovering, as it were, over the spot I aimed at; and then, slowly and floatingly, it alights like a gossamer, and as straight as an arrow. I throw, indeed, as if the surface of the water were a yard higher than it really is; and if you remember to do this you will find your progress greatly advanced thereby. But now for your performance. Really (to coin a word) you attitudise
THROWING THE LINE.

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to perfection — evidently forgetting that you are neither congeeing to a lady nor thrashing in a barn. Now, I declare, you are just as bad the other way — bolt upright, and rigid as an Egyptian mummy. You somewhat resemble a self-acting pump, the handle of which — to wit, your arm — performs its movements at intervals of a minute or so. Properly, you should stand upright to make a cast, and as your line descends upon the water, bend yourself, gracefully, a little forward. No: not to an angle of forty-five degrees — say fifteen. Now you are all right as to position. * * * Crack! Ah! the knell of a departed fly — produced by your whip-like management of the rod. That forward movement was made too quickly — you did not allow sufficient time for the line to unfold itself behind you, and the loss of your front fly (I beg pardon, stretcher,) is the consequence. But on with another, and try again; and again; — you improve every time. By Jupiter! another fly gone. Never mind, you must expect such casualties. I lost a dozen on my debut-day, so, as a punishment for my extravagance, I was kept flyless for a week, and I learned to throw with the bare line — not a bad plan, perhaps, for you to adopt. But on, on —
remember that Izaac himself was once as clumsy. Take for your motto "perseverance,"—act upon it, and you must and will succeed.

But why that shout? O, a skip-jack hopped over your line, and you thought it was a salmon. Well, well, your excitement augurs much,—it proves that you take an interest in the sport, and, in that case, my best rod against a farthing eel hook that your improvement will be rapid. * * *

There! you had a fine rise without seeing it. Marry, you must have your eyes about you, and they must be as sharp as a Basilisk's, or you will never shine as a fly-fisher. An adept in the sport would have struck that fish, and thereby, probably, secured him. Striking is an art which you must spare no pains to acquire. It is performed by raising the point of the rod suddenly but gently up, by a rapid but slight motion of the wrist; and it must be done on the instant that the fish rises at your fly. The object is to fix the hook before the fish has time to eject it from its mouth, which, on discovering the deception, it instantly endeavours to do, if not already hooked. Never forget to strike quickly and gently,—without the slightest approach to violence, for the mere tightening of the line will be sufficient
to effect the desired object.* You must practise striking till you find it impossible to get a rise without doing so; it must become a perfect habit, which, like all other habits, can only be acquired by constant repetition. As in the case of the experienced shotsman, who takes aim at a glance and pulls the trigger simultaneously, so there must exist an equal degree of sympathy between the hand and eye of the fly-fisher, which practice alone can create. *

For throwing the line we subjoin the following precepts of Mr. Ronalds, as imparted in his valuable work, "The Fly Fisher's Entomology:" — "In order to acquire the art of throwing the fly, it may be advisable to practise, previously to visiting the stream, in an open space, free from trees, where a piece of paper may represent the spot required to be thrown to. Taking the wind in his back, the tyro, with a

* "This action is simply a tightening feel, as the trout is generally previously hooked from the natural resistance of the floating line. If he is not felt to be hooked, then it is necessary to pull fully up and make another throw; but never let the first pull in feeling for a trout be so decidedly forcible as to be called a strike, for it ought not to be done with a third part of the force requisite to lift the line clear off the surface, as necessary to make another throw." — Younger's River Angling."
short line at first, may attempt to cast within an inch or two of the paper, and afterwards, by degrees, lengthen his line as his improvement proceeds: he may then try to throw in such a direction that the wind may, in some measure, oppose the line and rod; and, lastly, he may practise throwing against the wind. In this way any person may become an adept in throwing a fly much sooner than by trusting solely to the experience which he may get when on the waterside, for his attention being then wholly engrossed by the hopes of a rise, &c., a bad habit may be very easily engendered, which will not be as easily got rid of."

"Ephemera," in his admirable "Hand Book of Angling," gives the following useful hints: — "In what precise shape artificial flies, floating on the water or just beneath it, present themselves to the fish, I cannot truly tell. They certainly cannot present themselves in the exact living forms of natural insects, but their appearance must be something like them. If I were to guess, I should say that the artificial flies for the common trout and grayling present the appearance of drowning or drowned natural flies; or of living insects struggling on or underneath the water. I do not think this surmise fanciful. At
any rate the fly-fisher should endeavour to present his artificial baits to the fish as deceptively as possible; that is, by giving them as natural an appearance as may be. He must cause them to drop lightly on the water, because the natural fly does so; he must cause them to swim down as near the surface as he can, because the natural fly moves upon the surface of the water; and he must impart motion to his flies,—a species of fluttering, generally speaking, being the best. All this is comprehended by the expression 'humouring' one's flies. To do it, the moment your flies alight upon the water, hold up your rod, so that the drop fly next to it may appear skimming the surface; the other two*, if properly proportioned and attached to the casting line [or collar], being ever so little under water. If you allow your upper dropper to be under water, all the flies below that dropper will be sunk too deeply to appear living insects to the fish, and therefore any motion you may give them will be useless. They then can only be taken by the fish for dead flies. When you keep your last dropper on the surface of the water, impart to it

* Our author is speaking of a collar fitted up with three or more flies; but there will be no difficulty in applying his remarks to one fitted up only with two, as we advise.
a slight skipping motion, by a tremulous shake of the rod, and the flies that are just under water will receive the most natural motion you can give them. Never drag your flies straight across the water towards you, and never work them against the current. A small fish may, perchance, rise at them when so worked, but seldom or never a large one."

Imitate, gentle pupil, the movements of whoever you believe to be a good hand, and practise, practise, practise. Hover in the wake of every good fly-fisher you meet with,

"By burn and flow'ry brae,"

and notice eagle-eyed. But forget not one little point of etiquette, a breach of which is no less discreditable to one party than annoying to the other:—be careful how you intrude yourself and your questions upon strangers. Some anglers are (and you will some day prove the truth of the assertion) very nice about things of this kind—very queer fellows upon occasion—all smiles and urbanity when they get good sport, and have the river to themselves, and just the reverse after they have been out all day and "scarce extracted one," and, moreover, had the infinite pleasure of knowing that half a dozen "brethren of the
PLAYING A FISH. 161

streams" have been whipping all the while before them.

We may as well, too, while speaking of etiquette, mention another point or two which it would be always well to remember: — Never attempt to fish any part of a stickle already taken possession of by another angler. The rule is to pass it entirely — keeping well off the river, and not wetting your line within two hundred yards at least. When fishing with a companion, it is usual to take alternate stickles, and sometimes alternate fields. We strongly advise our pupils never to fish hastily. If you find yourself much pressed by anglers determined to fish ahead of you, encourage them on for a mile or so, and then turn back, and fish carefully over the ground they have thus hastily tried. We deem this a valuable hint, and trust it will be so regarded.

But we had arrived as far as hooking the fish, let us now proceed to the manner of bringing it ashore. An experienced angler knows, with marvellous exactness, the weight of his hooked fish; and, like a skilful general who knows the enemy's strength, he shapes his tactics agreeably with that knowledge —

"Some lightly tossing to the grassy bank,  
And to the shelving shore slow dragging some,  
With various hand proportion'd to their force."
For our own part, we never *trifle* with a fish of any size, but land him as soon as possible. We mean not that we attempt to haul in a large fish at once, but simply that we never miss taking due advantage of every inclination evinced by the struggler to be transferred to another element. Who would use ceremony with a fish under six ounces? Not we, indeed, but rather pull him in, *nolens volens*. It is a proof that a fish is hooked firmly, and likewise that he is large, when he descends in the water and struggles at the bottom or in mid-water. When he keeps leaping above and floundering at the surface, rest assured that he is hooked but slightly—not in the cartilaginous, but in some ticklish, nervous, part of the mouth; and that unless you are gentle as a lamb, and handle him "as if you loved him," tenderly and delicately, he will, *sans ceremonie*, give you the slip.

Now, then, as to managing a large fish. If you have him in a fair open place—and if you have not, your first business is to get him there—you must endeavour to turn him *down stream* at once, keeping him under as short a line as possible without straining too tightly. If he resist much, give to him, that he may play his freaks at a distance; but miss no opportunity of winding up
the line again, and with interest. When the fish "runs," you should walk, if possible, opposite to him, giving him the spring of the rod, and you should neither attempt to stop him by anything like a sudden check, nor, of course, permit the line to slacken. Should he halt, and endeavour at the bottom to disengage himself from the hook, or should he slip under a weed—which, be assured, he will do if possible—run instantly below him, and, lowering the rod to a level with the surface of the water, pull moderately and uniformly, not, of course, so hard as to endanger the rod or line, and you will probably divert him from his object. If not, you may venture on the experiment of a few stones, pitched, judiciously, just above him. He will start off again in gallant style—be cool and collected or all will be marred, and forget not for an instant that playing him down stream is the only effectual way of tiring him. Keep him in "brisk exercise," giving line when necessary and drawing it in again as he tires. Relaxed will soon become his efforts, and fainter his struggles; but take the thing leisurely. Look out for a good landing-place—a shelving bank or a pebbly beach—and coaxingly lead him towards it. Now comes the moment of danger. If you have a landing net,
and a companion to use it who understands the business, the affair is simple enough; but if you are alone and without this much abused instrument, it will be as well to prepare for the exercise of considerable tact and skill. As the fish nears the shore—

"Floating broad upon his breathless side,
And to his fate abandoned" —

do not attempt to haul him directly up the bank, but stick the rod firmly in the ground, by means of the spike, and in a direction slanting towards the water — taking the precaution of placing the reel in such a manner that the line may run freely from it should the fish make a sudden dash into deep water. Keep a sharp eye upon your gasping victim as he floats upon the surface; be steady and cautious; and if you hope to secure him do not attempt to lift him by the line* — an act of egregious folly, which, to our knowledge, is not unfrequently committed by those whose experience, if not common sense, ought to teach them better. If, gentle pupil, you would rank as a

* It must not be forgotten that we are speaking of a large fish; for in playing a small one this rule may be often "more honoured in the breach than in the observance," though everything like a jerk must in all cases be studiously avoided.
good craftsman, never touch the line yourself, nor suffer any one else to do so, while you are playing and landing a powerful fish. To return. Perhaps your captive is not yet exhausted — your approach has aroused him; again he rushes, with desperate vigour, into the middle of the stream, taking with him some ten or a dozen yards of line. Fly to your arms, and battle with him as before. But a few minutes will suffice to decide the contest. He comes in on his side again, but now powerless and dying, and you wind up your line as he approaches. He is close to the shore. Remember, do not attempt to drag him up the bank. Delay not a moment; stick in your rod — rush down — approach him from behind — seize him in the middle — toss him ashore — give him a rap on the head against a stone or the butt of your rod, to

"Still his pantings of dismay"

basket him — he is yours; "the contest is over, and you have now the pleasure of beholding your prostrate foe beaten in his own element, forced from it, and with weapons so weak that, if strength could compete with art, you would not have been able to hold him in check for a moment. You feel, moreover, that you could not have accomplished such a feat without exercising great com-
mand over your own faculties—without exercising patience, ingenuity, cunning of hand and of mind; that you have been putting in practice the good old advice, *suaviter in modo*; and that you have just proved that, in almost all contentions for mastery, "an ounce of oil goes farther than a pound of vinegar." The folly of attempting to play a large fish against the stream must be at once apparent. The resistance of a swift current is alone sufficient to tear a small hook from the firmest hold in the tender mouth of a trout; then the weeds present themselves, and they are never backward in offering their powerful opposition.

We should have mentioned before, that even with a net with which to land the fish, the greatest care and caution must be exercised, for nothing, after the person who uses it, will frighten the fish more than a net improperly used. Never bring the net *in front* of the fish, however quiet he may appear, but sink it behind him, and passing it slowly under, dip him gently out. If without a net, and you find it difficult to bring the fish to your hand, make the water muddy, and, cuttle-fish like, take advantage of its obscurity to seize your unsuspecting victim.

* Shipley and Fitzgibbon.
When you have the misfortune to lose a fish while playing it, a circumstance which you must not expect to be of very unfrequent occurrence, be careful to keep what is infinitely more valuable—your patience and good temper; those, observes Stoddart, "are worth a cart-load of salmon." After a large fish has escaped you in this way, it may be as well to remove to another stickle, repeating your visit to the former place—if you think it worthy of so high an honour—after the lapse of a short time.* You know that it was said centuries ago, by the old Roman poet—in a work written on a much more tender subject than angling—that

"The fish once prick'd avoids the barbed hook,
    And spoils the sport of all the neighb'ring brook."†

But it is by no means improbable that you may hook the same fish a second time, for such an instance is of constant occurrence. Sir Humphrey Davy says—"I have caught pikes with

* "If you have a rise, but fail to hook your game, either by striking prematurely, or from the fish having missed his spring, you may throw over him again almost directly, if he be a small one; but, if he be 'the monarch of the brook,' don't venture near the spot again for half an hour at least."
—Hansard's Trout and Salmon Fishing in Wales.
† Ovid's Art of Love.
four or five hooks in their mouths, and tackle which had been broken only a few minutes before; and the hooks seem to have had no other effect than that of serving as a sort of sauce piquante, urging them to seize another morsel of the same kind." We can state a fact, too, which occurred to ourselves a few years ago. We were one morning busy fishing a favourite pool near Sylm-lakes Bridge, about a mile from Axminster, when a friend came up to us with the intelligence that a trout, in the same spot, half an hour before, had carried off one of his choicest flies. At the same instant we had the good fortune to hook a half-pounder, which, in due time, our friend landed for us, and in disengaging the fish from the hook we discovered a second fly, which he recognised as his lost favourite, firmly fastened in the roof of its mouth. With this identical fly he, on the same day, filled his basket, and lost it the next in aspanking salmon-peal. Sir Humphrey Davy mentions the circumstance above quoted, in his admirable defence of angling from the charge of cruelty—a charge which is destitute of grounds and unsupported by argument. In another place he says,—"It cannot be doubted that the nervous system of fish, and of cold-blooded animals in general, is less sensitive than that of warm-
blooded animals." But our readers will not expect us to enter into this subject, since the fact of their being readers is a negative proof of their having previously formed opinions at variance with the maudlin and distorted notions of those who deem every amusement as sinful, of which their morbid taste, or, it may be, their mental or physical incapacity, deprives them the enjoyment; — of those who, as Butler says in Hudibras—

"Compound for sins they are inclined to
By damning those they have no mind to."
CHAPTER IX.

"But now we heed our tired pen's entreaty,
Which halts, and says,—pray let me write valet." 

In this our concluding chapter we shall throw together a few general remarks on the practical department of our art,—the three seasons into which the angler's year may be divided,—the peculiarities of each,—the proper flies to use and why,—and other particulars from which we trust our pupils may derive instruction and be enabled to get the ground-work of correct and satisfactory practice. The periods at which the flies enumerated in our list and tables appear upon the water would, perhaps, be understood from what we have said about the natural insects in an early chapter; but our little work will be the more complete and useful, by containing more detailed information on the subject. This chapter, therefore, and the one to which we have referred, should be read in connection with each other. But besides recommending the use of certain flies because of their prototypes being on
the water at the particular times ascribed to them, we take care to enumerate those artificial flies which, even considered apart from their supposed resemblance to particular natural insects, will be found in their general character and size to be best adapted to the state of the water and of the atmosphere at the periods and under the circumstances mentioned. In short, we recommend such flies, and give such instructions, as our experience has taught us to consider most likely to obtain the object of fishing,—"the wherewith" to occupy the pannier.

The angler's Spring includes February, March, and April — after which, for the four succeeding summer months, there is little fishing to be had in the day-time. Evening fishing is then chiefly practised — but of that anon. The season of Spring obviously furnishes the greatest amount of sport, for then the fish are generally ravenous for flies, after their long winter's abstinence from them, and the artificial fly is freely taken, because the fish are bolder, and because the comparative scarcity of natural flies, in the earlier period, renders the fish less fastidious in the choice of their favourite food. In February and March, therefore, you need not be over-nice in your combinations of fur and feather. The blue
dun (No. 2 in our list) dressed with dark materials, or the red fly for the dropper, with the red palmer for stretcher, all dressed full and on hooks Nos. 3 and 4, Kendal, are as good as any that can be selected. In Devonshire, the almost universal use of the red palmer has passed into a proverb, and the fame of the fly is certainly not undeserved. Its general colour is of that "happy medium" which harmonises with most states of the water and atmosphere, and the numerous shades to which it may be varied,—in its hackle, and by the omission or otherwise of gold or silver twist on its body—render it peculiarly valuable. We therefore strongly recommend its use in the spring and autumn, dressing it with gold twist only for dark and windy days. We do not like a purely red hackle so well as one with a black list—or a furnace hackle, as it is called—that is, a hackle with red tips and black close to the quill, as already described in the Chapter on Fly-making. The blue dun, also, as we have before stated, forms an excellent lure, and is not at all less deservedly famed than the palmer. Like the latter, too, its colour admits of so much variation—the shades of blue being so numerous—that it will suit almost every state of the water
and of the atmosphere; and, moreover, it forms, when dressed properly, a more exact and insect-like imitation of the natural fly than many of the productions in which nature is poetically said

"To live again in art."

You will find that in the beginning of February the trout generally haunt the deep and still parts of the river, to fish which a breeze is necessary; but that in open weather they will, even at that early period, begin to feed in the tails of stickles, and in the gravelly shallows, advancing gradually upwards as the summer approaches. Whatever the season, you should never omit taking advantage of a windy day, when the surface of the water is ruffled, to fish the deep parts of the river,—the ranges, as they are piscatorially denominated. These you should fish slowly and carefully, upwards or downwards as the wind may render more convenient,—making your first cast under the bank on which you stand, the next towards the middle of the stream, and so on, cast after cast, towards the other side, taking care to place yourself, whenever practicable, opposite to a higher bank than that on which you stand, in order to be less in the view of your watchful and
timid game. You will soon discover the most likely places in which to make your main casts. If the fish do not give you sufficient indication of their whereabouts, by rising, your next best guide will be the course given by the current (if any) to their winged prey, which you will discern floating in regular line, or else driven by the wind into sundry sheltered nooks and corners behind bushes, tufts of grass, and other similar places, in which you will most likely find the trout at home, making a sly and quiet meal. Offer him your flies for a dessert. Perhaps we need hardly state that the angler should endeavour at all times to fish with the wind blowing from behind him, with the view to its assistance in throwing his line; but should he at any time, when fishing in that position during a sun gleam, find the fish suddenly cease rising as he approaches, and refuse every temptation which he may offer, he need be at no loss to account for the circumstance, if he find the sun also at his back — thereby throwing his shadow and that of his rod upon the river, and thus exposing all his movements to the fish. We do not attach much importance to the quarter whence the wind blows, though in spring and autumn a south or west,
and in summer a north or even an east breeze may be preferable. In February and the early part of March it is generally of very little use to fish before eleven or after two o’clock, and you need not be so particular in selecting cloudy weather as you must be at a more advanced period; indeed, a few gleams of sunshine are of advantage at this early season, and for the double reason of their hatching flies and rousing the fish.

On rivers which do not breed the May-fly, April is decidedly the best month of the year. The fish are then sufficiently vigorous to frequent the swiftest stickles, chiefly haunting their sides, and they are very active in pursuit of flies, which appear in numerous and tempting variety. But it may be necessary to explain, that in speaking of swift stickles we do not refer to the mere shallows, which only contain the smallest fish, to capture which, as we have elsewhere endeavoured to impress upon the reader, is to the true sportsman completely infra dig.; while at the same time it is an unpardonable act of wanton and inconsiderate destruction. The stickles to which we do refer will not be mistaken by any one who really wishes to understand and not to pervert our meaning. The advice of the Poet of the
Seasons should ever be remembered, and it is given in very beautiful language:

"If yet too young, and easily deceiv’d,
A worthless prey scarce bends your pliant rod,
Him, piteous of his youth and the short space
He has enjoy’d the vital light of heaven,
Soft disengage, and back into the stream
The speckled captive throw."

The most beautiful flies on the water in April are, the yellow dun and the iron blue or Scotchman; and their imitations, if neatly dressed on No. 1. Kendal hooks, and used with very fine and round gut, are as good as anything that can be constructed in the shape of flies. They should be used from eleven till about three o’clock, before and after which time, perhaps, some of the other flies which we have named elsewhere may be more suitable. Among them the sand fly, the grannam or green-tail, the hare’s flax, the spider fly, the blue dun of different shades, and the March brown, will furnish an ample variety. The last will be found a first-rate fly in windy weather from the middle of March till the middle of April. The size of the hook on which it should be dressed is No. 4., and it should be fished with as the stretcher, with a dark blue dun, on a
No. 3. hook, for the dropper. Much sport may be had during the showers which are proverbial during April, and also during showers at any other part of the season. The same may be said of light snow storms, which often fall in the early part of spring. Fish, however, never rise well during long-continued rain, nor in a heavy fog, nor in storms of thunder and lightning. They form, in their habits, a barometer for observant anglers as unerring as the mercurial tube. Before much rain, for example, they will not take the fly well, though the river seem alive with their leaping. They will hop over your flies and frisk at them with their tails, as it were, in the most tantalising way imaginable. Now and then you may feel a tug—you strike—there is a moment's flounder—and the fish is off. This is called "rising short," and a very unprofitable rising it is.

We now come to the Summer quarter, which includes May, June, July, and August,—a period which, though too bright and warm for much day fishing, affords some very pleasant pastime when, after the long day of "sultry hours," the cool and welcome

"—Shades of eve come slowly down,
And woods are wrapped in deeper brown."
Should it, however, be a wet season — cloudy and showery weather prevailing — you will be likely to get good sport in the day time, capturing probably large, and certainly well-conditioned fish. Fine tackle is indispensable, and our tables will furnish an ample variety of flies. The iron blue and yellow dun may be still continued in clear water; and when the wind is very high, or the water stained, they may be changed for the alder fly and the red ant, dressed on No. 3. hooks. We allude, more particularly, to rivers unfrequented by the May fly, for on May fly rivers, June is the angler's best and busiest month. On them the principal flies used at that time, and sometimes for a week previously, are the May fly and the grey drake, dressed on No. 6. hooks, and varied occasionally with the red palmer, the alder fly, the ants, and some other kinds. The Welchman's button is also a favourite with some anglers in windy weather. It should be dressed thickly and compactly on a hook No. 3., or even 4. if the water be discoloured as well as ruffled. The May fly is generally used for the stretcher, and the grey drake for the dropper, particularly in the evening. If the river be very weedy a dropper had certainly better be dispensed with, as recommended in a previous chapter, and either the
May fly or grey drake, as may be thought best, used for the stretcher. Should the fish, however, be glutted with their large ephemeral prey, we recommend the use of a full-dressed red or blue palmer for the stretcher, with a blue dun or a partridge hackle (hook, No. 4.) for the dropper. Dapping with the natural May fly is a destructive method of angling, and where that insect is not bred, any large fly, or a grasshopper, may be substituted for it. Dapping, however, can only be practised in woody rivers, and it is not, after all, so artistical nor so purely sportsmanlike a method as fishing with the artificial fly.

*Evening fishing* often affords delightful sport; you frequently get hold of some lusty fish, and even if you are not so successful, the delightfulness of a walk on the green turf, after the heat and fatigue of a long summer's day, to

"—— where streamlets fall
With mingled bubblings and a gentle rush,"

presents, in itself, no trifling recommendation. It is next to useless, unless in a cloudy evening, to commence fishing till within half an hour before sunset; and you may continue as long as you find it likely to be of service. In the height
of summer the fish will rise all night (if the portion of the day during which the sun is absent may, at that bright and joyous season, be so denominated), but you will not, perhaps, be often inclined to tempt them till anything like a late hour. Ten o'clock will doubtless frequently find you by the river, throwing across that which, in the clear moonlight, more resembles molten silver than "the liquid element." Before sunset we recommend any small flies,—such, for instance, as the yellow dun, the iron blue, or the golden spinner on No. 1. or 2. hooks. After sunset, as the darkness increases, rather larger flies should be used, and we know of none better than the red palmer, the partridge hackle, and a fancy fly of our own, which we have named, out of respect for our patriarch, the Walton, dressed on No. 4. or 5. hooks. At a still later period of the evening, when you must depend more upon feeling than seeing a rise, those flies should be again changed for lighter and larger ones (on hooks No. 5. or 6.), and they may be selected from the coachman, the blue palmer, the white moth, and the white spinner, on a large scale and thickly ribbed with silver twist, or, in short, any combination of bright and conspicuous materials which
the fancy of the angler may suggest. The first-named fly is in great repute in Hampshire and many other districts. It appears to us misnamed, in one sense, having often proved it to be quite the reverse of a driver. We will only add of evening fishing, that it is not advisable to fish over a great deal of ground. When the fish are found to be in rising humour, we recommend the angler to get possession of a good deep stickle, with a still range above or below it, and to charitably advise any brother piscator who may be disposed to spend his time in roving about from stickle to stickle, to cease his wanderings and to station himself, as soon as possible, in a similar situation.

When trout are not to be had in summer evenings, a capital secondary sport may be found in Dace Fishing, which indeed forms an excellent school in which to get initiated into the mysteries of trouting. Small dark colour flies should be used,—a little black gnat with a gold tag is as good as anything. This fly is made simply with a turn or two of flat gold wire at the bottom, for the tag, the rest of the body of black ostrich herl, and a wing from a wing feather of the starling. Hook, No. 1. or 0. Use two of these on a fine collar, and, on a quiet evening at sun-
set, select a deep pool below a stickle. The movements of the fish themselves will best guide you in this selection, for they rise much more freely and in more open water than trout. They merely break the surface with a sullen sort of movement, and take the flies in a sucking manner — for they are not so voracious as the trout, and have no teeth in their jaw-bones for holding their prey. Nor are they so timid as to be easily frightened by the line falling clumsily upon the water. Throw your flies as near as you can to the rising fish, and allow them to sink a little, at the same time drawing them with a tremulous motion towards and over the place where you expect a rise. Strike the moment the fish rises, and haul ashore without the ceremony of playing — for, being leather-mouthed, there is little danger of the hold being broken.

The Autumn fishing vies with that of Spring, and in rivers which are frequented by salmon and salmon-peal it is in some respects even superior to it. The trout are fat and vigorous after their summer feeding, and in favourable weather they are, throughout the day, generally eager in pursuit of food. These remarks apply to October and the end of September, and they are more
particularly correct in a rainy season. At such a time the angler has only to select a gloomy day at the clearing of the water after a flood, with a southern or western breeze playing upon the ranges, and raising mimic waves upon their surface, and if he be a good craftsman, and have good "tools," the fault will be his own if he return home at "dewy eve" without a well-filled pannier. On such a day we should use a good red palmer (hook No. 4. or 5.) and a blue dun (hook No. 4.) dressed as No. 2. in our first table, or else, perhaps, the willow fly, as our judgment or caprice might lead us. In finer water and a stiller atmosphere we should stick to the autumnal dun, dressed on a No. 1. or 2. hook, and a small red palmer without gold twist—or, in short, any of the flies in our list which we might consider best suited to the water and the atmosphere, or to resemble most any particular fly upon the water to which the fish might be exhibiting a partiality.

Here our instructions cease. We again repeat, that we do not expect them to be efficient unless taken as a whole. In common fairness we invite a perusal of the entire book, and venture to hope that the pupil who reads it for the purpose of acquiring instruction will not be wholly disap-
pointed. There are doubtless passages which to a novice will appear at first obscure, for we do not imagine that we have escaped the common difficulty of communicating what we wish so clearly, in all cases, as to be perfectly intelligible at once and immediately to every comprehension. Whenever our pupils, therefore, stumble upon passages of this sort, we trust that they will not too hastily pass them over. We venture to hope that careful reading and re-reading, both separately and in the context, will soon make clear what at first seemed difficult or incomprehensible. At all events, we have done our best, and our readers, we hope, will pardon all they may consider imperfect.

We have written this book from an ardent love of the art on which it treats, and from the desire of enabling others to partake of its manifold enjoyments. In this work-a-day world it is something to find an innocent amusement for oneself, and to contribute to the amusement of others. It is contrary to the mental and physical conformation of mankind to labour or to study incessantly—to be perpetually engaged in any of the ordinary every-day affairs of life, without paying the penalty in the shape of shattered health of body
or of mind. People are not yet so much inured to a highly artificial state of society — and never will be — as to be able to dispense altogether with recreation; nor have the woods and fields, the mountain and the stream, the birds and the flowers, and the thousand other objects of all-beauteous nature, yet lost their fascinating influences — however much we may be involved in the intricacies of social life and in the active duties which more or less devolve upon us all. There are times when brain and sinew, mind and muscle, call aloud for rest and change, and need recruiting ere their functions can be properly continued. An amusement which draws its votaries away from the scenes of their labours into contact with external nature, in all its innocence and beauty — which supersedes the too often sensual "pleasures" which can never be its efficient substitute — is a blessing to the individuals who adopt it, and to their connections also, so long as it is consistently pursued.

Such an amusement is that on which we have written these chapters. In all ages some of the best and wisest of men have not only been the stanchest advocates of angling, but also have ranked among its best and most enthusiastic
practitioners. It would give us unfeigned happiness to know, at any time, that our humble labours were the means of extending, however little, the practice of that delightful art — of initiating however few into its guileless mysteries — and thus of enabling them to experience those pleasures which it is capable of affording so largely, and which, from childhood upwards, we have ourselves so abundantly enjoyed.

THE END.

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