HOW TO TIE
SALMON FLIES

CAPTAIN HALE

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HOW TO TIE SALMON FLIES

HOW TO TIE Salmon Flies

*A TREATISE ON THE METHODS OF TYING
THE VARIOUS KINDS OF SALMON FLIES*

With Illustrated Directions

*AND CONTAINING
THE DRESSINGS OF FORTY FLIES*

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P R E F A C E

ITHIN the last few years numerous books have been written on all branches of Fishing and Fishing Tackle, save one. That one, Salmon Fly-tying, has not received the attention it deserves, although many improvements in methods of tying, and in materials used, have been made. I have endeavoured to describe these.

I am much indebted to Mr. C. O'Meara for his assistance. He photographed all the Originals from which the Illustrations were drawn. This entailed more work than might be supposed; for in many cases the negatives were unsatisfactory, and fresh photographs had to be taken. My thanks are also due to Mr. R. B. Marston, Editor of *The Fishing Gazette*, for his assistance and suggestions in connection with the book.

J. H. HALE.

WOOLWICH.

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INTRODUCTION

OW many fishermen one meets who cannot tie their own flies—many of them not even being able to name their different parts; and of those who do tie them, what a great proportion do so indifferently!

I believe the reason lies in the facts that there are no books entering thoroughly into all the details of the subject, and that lessons can only be obtained by paying a long price. It is certainly far cheaper to make one's own flies than to buy them, putting aside the amusement and satisfaction derived from doing so.

My object in writing these pages is to supply such a book, in the hopes that those who have the leisure and inclination to do so, will be enabled by it, not only to learn to tie their own flies, but also to increase their sport.

I have so often met ardent anglers throwing flies of such wondrous deformity, that, no matter

what skill was exercised in handling the rod, no fish with ordinary fishy brain would glance at, much less leave his resting-place to examine. I am rather inclined to believe that these monstrosities frighten the fish. A little knowledge of the subject of fly-tying would save these anglers days of disgust and disappointment. Salmon fly-tying is a most fascinating subject : partly because there is so much variety in it, partly because (to those who strive for perfection) of the difficulties. In nearly every fly that he makes the beginner will find something new to learn, some new fact to make a note of. Practice there must be. Even those who can tie small trout flies well, and can handle silk, etc., easily, will find a salmon fly a very different thing at first : there are so many more details to attend to, and so many more difficulties to be overcome. Perfection in fly-tying is not absolutely necessary to ensure success ; but it will generally be found, I think, that those who have well-tied flies are more successful than those who have badly tied ones.

Mechanical perfection alone, though, will not ensure beauty in a fly ; for, however well a fly may be tied, if harmony of colour is absent, half the pleasure to the eye, or satisfaction to the

mind, is wanting; therefore the two should go hand in hand.

There has been no attempt in these pages to write anything more than the experiences and ideas of an amateur fly-maker and fisherman, the desire of the writer being to describe the details of the art of salmon fly-making in such homely language as would convey the several processes, clearly, to the comprehension of all beginners who care to approach it.

ERRATA

Page 15, line 3, *for* under *read* over.

- „ 26, *for* lines 11 to 17 *read*: Pour a tumblerful of *cold* water into a basin, then add gradually a teaspoonful of acid. Then pour in gradually water, in which dye has already been dissolved; add the feathers and proceed as before. Do not stand over the basin when mixing the acid and water.
- „ 42, line 3, *for* right and left *read* two rights.
- „ 51, fig. 29, a strand of tying silk should be shown hanging from the butt.
- „ 70, line 13, *for* ribbon *read* ribbing.
- „ 73, line 4, *for* jay *read* tag.
- „ 75, line 16, *for* feather *read* pair of feathers.

CHAPTER I.

H O O K S.

THE numerous varieties of hooks which are made and sold for salmon flies can be divided, as far as they affect fly-tyers, into two kinds, viz. :—*First*, the ordinary straight-shanked hooks, with gut loops tied on to them; *second*, those with metal eyes, or, as they are called, ‘eyed hooks.’ The varieties of both kinds, single and double, as regards bend, thickness of wire, shape of points, make, shape and angle of the ‘eye,’ are innumerable, but do not concern the fly-tyer.

Of the two kinds, I have no hesitation in recommending eyed hooks over the plain ones, provided they fulfil the two following conditions :—*First*, that when fastened by a good knot to the casting line, the ‘pull’ is in the same straight line with the hook shank; *second*, that the eye of the hook is perfectly smooth, so as to prevent the gut from chafing as much as possible. It is only when the eye is turned down that the first condition can be fulfilled; and when the ‘eye’ is brazed on (as in No. 2, Fig. 1) to the shank, or

when the wire forming the eye is carried back along the shank (as in No. 1), that the second condition can be fulfilled. If the wire is merely

Fig. 1.

bent into the shape of an eye (as in No. 3), the rough end of the wire must cut the gut, and therefore an eye so made is objectionable. Those with the eye brazed on are preferable, as they are neater; besides

which, there is a flat surface on to which to tie the wings, a great help to the beginner, as it is more easy; the wings too will be firmer. Many fishermen argue that metal eyes, however smooth they may be, fray the gut cast more than hooks with gut loops to them, but I have not found it so.

Now, if the above-mentioned conditions be fulfilled, the advantages to be derived from the use of eyed hooks are as follows:—*First*, Flies tied on them will last very much longer; in fact, where natural or undyed feathers are employed in their manufacture, they will last for years; whereas those tied on hooks with gut loops last but a very short time, and cannot be depended upon after comparatively little use; hence a great saving of expense—no small item when the price of some flies is taken into consideration. *Second*, A great saving of time in tying flies, as with the plain hooks gut has to be looked out, soaked, twisted, fitted, tapered, and then tied on, while with the

eyed hook there is nothing but a layer of tying silk down the shank. *Third*, The bodies of flies can be made much thinner (for some rivers very necessary); the heads, too, can be kept smaller, one of the most important points in a salmon fly. The chief thing that a salmon fly-tyer has to look to is, that his flies, when made and attached to the cast, will swim perfectly steadily, without swaying to one side or the other; but however well *they may be made*, they will not swim

Fig. 2.

straightly unless attached to the cast by a good knot properly tied. By a good knot, I mean one that is perfectly secure, is small and neat, is easily tied and untied, and, last but not least, one that will hold the fly securely, and not allow it to become loose, or swing about at the knot or junction with the cast. The best that I know of, both for hooks with gut loops, and eyed hooks, is the one figured in the illustration, and called the 'figure of 8' knot. Its advantages are, that when complete, it is very small; the gut has to be passed only once through the loop or eye, and

can be undone in a moment. It is suited to all sizes of flies, except when the eye is very large. The illustrations show the method of tying the knot so clearly, that it is unnecessary to give written directions. But in all cases the gut must be first passed down through the loop or eye, so as to bring it as nearly as possible in line with the shank, when the knot is pulled tight. To tighten the knot, first the line *A* must be pulled, then the end *B*—the former is then cut off. To undo the knot, simply push the line *B* steadily, when the whole knot is loosened at once. For hooks with large eyes, or with the eyes made of thick wire, the above knot will not do, as it will not

Fig. 3.

grip the hook, and with such the best knot is undoubtedly the slip knot, as shown; but this means that the gut has to be passed twice through the eye, and is not easily undone when once pulled tight. On the other hand, it is perfectly safe, and grips the hook firmly. When it is necessary to change a fly attached by this knot the gut must either be cut off, or worked loose with a pin or stiletto.

As to the sizes of salmon hooks, there are two scales: the first, or old one, though still made use

of, is the 'Redditch' scale. The second is the 'New Scale.' A full-size illustration is given of hooks up to 5/0 or 19. Hooks are made very much larger, up to four inches in length; but the figures are sufficient to show the sizes and different numberings. Although this is a book on fly tying and not on fishing, it will not perhaps

Fig. 4.

be out of place here to advise the use of only the best hooks. It is labour thrown away in making flies either for your own use, or for that of others, to tie flies on bad hooks. Sooner or later at the river-side there will be loss of temper, disappointment, and disgust. The same remarks apply to all materials used in salmon fly manufacture.

CHAPTER II.

MATERIALS, IMPLEMENTS, ETC.

THE following materials, implements, etc., are used for making salmon flies. Tying silks, floss silks, seal's fur, pig's wool, mohair, chenilles, tinsels, feathers, scissors, hackle pliers, stiletto, penknife, cobbler's wax, varnish, vice, methyated spirit, and gut. To assist the beginner in his selection when buying and collecting them, the following hints are given on the above-mentioned items in turn.

Tying Silks.—The best are those known as 'Pearsall's gossamer fly-tying silks.' They are sold on reels in different colours, of which claret and orange are stronger than any of the others, the reason for this being, I fancy, that the dyes used in colouring the others weaken them. These silks are very fine, and should always be used doubled. They are then stronger, but take up less room when wound on the hook than the ordinary fly-tying silk sold in the tackle-shops. The beginner will probably break these pretty often at first, but he should not blame them and try some which are coarser: practice will soon teach him how much strain the gossamer will bear.

Tying silks should not be kept a long time, but should be bought fresh and fresh, as they lose their strength.

Floss Silks.—Always buy these from the tackle-dealers, as they are specially made and dyed for the purpose; the colours are faster. They are made of two thicknesses: the finer is best for tags, and for the bodies of very small flies. The beginner should provide himself with several shades of all colours. The skeins should be carefully opened, the silks wound on to cards, and the whole wrapped up in soft paper, care being taken to prevent their fraying, as they cannot then be wound neatly on the hook. The hands should be perfectly clean when handling them, for they are very easily soiled.

Seal's fur, pig's wool, and mohair, dyed all colours, are used for the bodies of flies, and can be bought at any of the tackle-shops; but if the beginner intends to dye his own feathers, I advise him to dye these also. The undyed material is sold by the ounce. Of the three, I prefer seal's fur; the pig's wool is too coarse, and the mohair too fine and limp.

Chenilles of two kinds are used, namely, silk chenilles and tinselled chenilles, or frosted threads. The former are made of different thicknesses, in all colours, which unfortunately wash out very quickly: they should therefore always be soaked in alum and water, or tartaric acid and water, for

some minutes. The finest only should be used. The tinselled kind are very effective, but tarnish quickly. Both kinds are used more for the bodies of grubs than for winged flies.

Tinsels.—Under this heading are the following varieties:—Flat tinsel, oval tinsel, thread, twist, cord or lace, and embossed tinsels. All these are made of gold or silver. Flat tinsel is very thin sheet metal cut into strips of different widths: the broader ones are used for forming bodies, the narrower for ribbing bodies, but they are not so strong or effective as the oval tinsels, which are made up of a silk centre closely rolled over with very narrow flat tinsel. They are oval in section, and are made of different widths. Thread is very fine wire. Twist is floss silk closely wound over with the finest flat tinsel, and has the appearance of a very fine thread. Cord or lace is two or three threads of twist, twisted together so as to form one thick strand. Embossed tinsels are flat, with raised patterns, and made in different widths. All tinsels should be kept on reels, wrapped up in soft paper, to keep them from light and air as much as possible. They are easily cleaned with plate-powder if tarnished. It is most important that only the best tinsels should be used. Cheap tinsels tarnish and lose colour almost immediately.

Feathers.—I begin with hackles, being, in my opinion, the most important. These are obtained from cock's necks or saddles. The following are

the kinds used. White, yellowish white, white furnace, white coch-y-bonddhu, red furnace, and coch-y-bonddhu of all shades; black, blue dun, blue furnace, blue coch-y-bonddhu, cuckoo, and knee-cap. A furnace hackle (No. 2, Fig. 5) is one with black streak down the centre, and with red or ginger tips; a coch-y-bonddhu hackle (No. 1) is one with a black streak down the centre, and black tips, the remainder being red. A white furnace

Fig. 5.

has a black streak down the centre, the remainder being white; a white coch-y-bonddhu has black streak and black tips, the remainder being white; a blue furnace has blue or grey centre, with red

or ginger edges, and a blue coch-y-bonddhu has blue centre and tips, with red or ginger edges. Many fly-tyers make no distinction between furnace and coch-y-bonddhu hackles; but as the feathers are entirely different, and the coch-y-bonddhu's are far more effective—natural or dyed—than the furnace, I think a difference should be made. A cuckoo hackle (No. 4) has black and white bars alternately and diagonally across it. Knee-cap hackles (No. 3) are exactly the same in colouring as the coch-y-bonddhu's, the difference between the two being that the one is black where the other is red, and *vice versâ*.

Hackles should be glossy and evenly tapered, and the fibres should be stiff and clear from stem to points. Saddle hackles are much better, in my opinion, than those from the neck, since they are much longer, have greater lustre, are generally better shaped; there is less list, and the centre rib is much finer, though quite as strong. It is very difficult to obtain really good hackles, the reason being that birds are killed long before they are old enough for our purpose. Feathers are not of much use from a bird under eighteen months old, and only then if it is healthy and in full plumage. They are best, I think, when taken from a bird four years old; of course it is an advantage to keep birds of the right colour, so that you can obtain feathers at the right time.

I strongly advise the amateur, who has the time

to spare, to dye his hackles. It is not only an amusement, but a great saving of expense, since dyed hackles are sold in the tackle-shops at three-pence and fourpence a dozen; and if the reader follows my directions for dyeing, given in the next chapter, he will find his hackles just as good, and they will cost him a good deal less.

Besides hackles, feathers from the following birds are extensively used:—Golden pheasant, blue and yellow macaw, scarlet macaw, blue and red macaw, toucan, Indian crow, jungle cock, green parrot, chatterer, bustard, florican, guineafowl, mallard, teal, pintail, widgeon, summer duck, jay, scarlet ibis, turkey, swan, peacock and ostrich. Feathers from a great many other birds are used,—in fact, their name is legion; but with those mentioned any of the ordinary standard patterns can be tied.

The *Golden Pheasant's* head and neck supply us with gold toppings or crests, used for tails and wings. Round the back of the neck or ruff are the 'tippet' feathers, used whole in wings or in strands or strips for wings and tails, and occasionally as hackles. The red breast feathers are used for hackles; the centre tail feathers for wings, and the bright red 'spear' or saddle feathers in strands or whole in wings. All these are sold separately. The fly-tyer should have an assortment of all sizes of toppings and tippets. The deeper in colour they are the better. The top-

pings should be kept in boxes, lying on their sides, or they will soon lose their shape.

The *blue and yellow, scarlet, and blue and red Macaw's* tail feathers are the best for making the 'horns' of salmon flies with. The former (*Ara ararauna*) is a native of Guiana. Its tail feathers are blue; the whole of the breast, flanks, and throat are brilliant yellow; useful for hackles and wings. The back is covered with blue feathers, good as hackles. On the wings are darker blue feathers, used whole for wings.

The scarlet, and blue and red macaws are much alike in general colouring. They are natives of Guiana and the West Indies. The tail of the 'scarlet' is red; that of the 'blue and red' is dark red. The heads and breasts of both are red,—these feathers being very good as hackles. Along the back are light blue feathers; those from the blue and red being lighter in colour, and called 'powdered blue' feathers. Strands of the larger feathers that grow over the tail are frequently used in wings. On the back of the scarlet macaw are orange feathers; these are occasionally used whole in wings. With the exception of the tail feathers of the blue and yellow, and of the scarlet macaw, and the powdered blue feathers from the blue and red, none of the above-mentioned feathers are actually necessary; skins of these birds are expensive, but natural hackles, on the other hand, are, I think, far superior to dyed ones.

The *Toucan* (*Ramphastos ariel*) is a common bird in the West Indies and Guiana. Its orange, canary-coloured, and dark red feathers from the breast, and the dark red over and under the tail, are used either as hackles, for small flies, or whole in jointed bodies—as the orange in ‘Jock Scott.’ Skins can be bought at the tackle-shops.

The *Red Breasted Crow* (*Pyroderus Granadensis*), from New Granada, known to fly-makers as the ‘Indian crow,’ supplies us with brilliant scarlet feathers, used whole in wings, tails, and jointed bodies; these feathers are on the breast of the bird only. The remainder is black. The feathers on the back of the neck are used whole in jointed bodies. Skins are sold in the tackle-shops.

The *Jungle Cock* (*Gallus Sonneratii*) is a common bird in India. The neck feathers, which are spotted black and white, are used whole in wings, tails, and jointed bodies. The more black and white the feathers are the better. Those with sandy-coloured spots, instead of white ones, are inferior. Necks sold in the tackle-shops.

The *Green* or *Amazon Parrots*, inhabitants of the banks of the Amazon, supply us with green and golden yellow feathers (tail) used in wings, either in strips or strands. Another bird that has green feathers useful for hackles is the green or soldier macaw (*Ara militaris*), but they are not often used, because difficult to obtain.

Chatterers’ feathers, of two species, are largely

used. The purple-breasted chatterer (*Cotinga cærulea*), a native of British Guiana, has medium blue feathers on the head and back, which are used as 'cheeks,' or in tails and for jointed bodies; the largest feathers being occasionally used as hackles. The light-blue chatterer (*Cotinga Cayana*) a native of Cayenne, has also blue feathers, much lighter in shade; they are used in the same places as the last. The throat of this bird is purple. Kingfisher's feathers are frequently substituted for light-blue chatterers; but this is a mistake, as they lose their colour after a short immersion in water. Skins of both kinds of chatterer are sold at the tackle-shops.

Bustard.—There are several varieties of this bird. The feathers from the Asiatic are perhaps the best, being more distinctly marked. Strips and strands from all the larger feathers are used for wings; some of the smaller feathers are occasionally used for hackles. The feathers of these birds lose their colour, fade quickly, and become brittle with age, so should be obtained as fresh as possible. The *Florican* (*Sypheotides Bengalensis*) is much the same in colour, and the same remarks apply. Single feathers are sold at the tackle-shops.

Guineafowl or *Gallina*.—Back and breast feathers are excellent as hackles, and strands or strips of the tail feathers for wings. Those with black ground and round white spots dye all colours

very well. There are white guinea-fowl feathers; they dye very well, but are not often used.

Mallard.—On the sides of the body under the wings of the wild duck are found the brown mottled feathers called 'Brown Mallard,' which are used in wings probably more than any other feather. Select those in which the brown part extends down to the shaft, or nearly so. The older the bird the better. The grey mottled feathers called 'Grey Mallard,' found on the breast and flanks, are also used in strips and strands for wings and tails. The brown feathers are occasionally found on tame ducks.

The *Teal*, *Pintail*, and *Widgeon* provide mottled or barred black and white feathers, all something alike, although those of the teal are more distinctly marked than the others, and show best in wings. The feathers of all three are used as hackles, and dye very well. Feathers should only be taken from these birds during the first three months of the year. They are sold by the dozen in tackle-shops.

The *Summer* or *Wood Duck* (*Aix sponsa*) is found in Canada. The black and white barred feathers found on the flanks under the wings, and the unbarred breast feathers, are used in wings and tails. The Mandarin Duck, from China, has similarly marked and coloured feathers.

Fay.—The blue-barred wing feathers of this English bird are used as hackles, and occasionally

those with blue on both sides of the shaft whole in wings. Select feathers from old birds only, in which the bars are most distinct. These feathers should be obtained as fresh as possible, otherwise they lose their brilliancy in the water. Wings sold.

Strands of the *Scarlet Ibis* wing feathers are used in wings. The hackles are useless, as they are too limp, and have no life in the water.

Turkeys' tail feathers are very useful for wings. There are a great many varieties, all useful; but the two which are more generally used are the brown, with black bar and white tip, and the grey, with black bar and white tip. Feathers from old birds only should be used, as those from young ones are too limp. The feathers under the tail are best for small flies. Feathers sold by the dozen.

Swan.—Strands or strips of the feathers of this bird, when dyed, are very useful for wings. They dye all colours well.

Peacocks' tail feathers, both the 'sword' and 'eyed,' are much used for butts, heads, and wings. The green breast feathers are sometimes used as hackles. Strips and strands of the speckled wing feathers are very useful for wings. The tail feathers should always be fresh, as they become brittle with age.

Ostrich Feathers dye all colours well, and provide material for the butts of nearly all salmon flies.

A great many kinds of the feathers mentioned can be obtained for next to nothing at the poulterers' shops, such as mallard, teal, widgeon, guinea-fowl, turkey, and hackles. This means a great saving of expense; for mallard, teal, widgeon, and guinea-fowl cost 3d. to 6d. per dozen in the tackle-shops; turkey feathers 2d. each, and undyed hackles 2d. per. dozen. Very often skins of foreign birds, suitable for flies, can be bought at naturalists' shops for much less than the prices asked at the tackle-shops. I have in most cases given the names of the countries in which the birds are found, so that any of my readers who have friends in those countries can possibly get skins sent to them; for skins that can be bought for next to nothing in their own countries cost a good deal in England. When buying a skin, select the one the feathers of which have the least quantity of fluff at the roots, are the most glossy, and have the richest and deepest hues, and in which the colour extends furthest to the roots. There is the greatest difference between feathers of old and young, moulting and fully feathered, healthy and unhealthy birds. See, too, that there is no sign of moth; a feather with the points of the fibres eaten away is useless. Some feathers lose their colour after being a short time in the water, regaining it when dry. The kingfisher and blue jay (Indian) especially, the green parrot, blue macaw, and

English jay all turn colour slightly. The more recently feathers are taken from the latter bird the less likely they are to turn. Many feathers, dyed or natural, lose their colour when exposed to the light. In fact, sun is *the enemy* of dyed or natural feathers, fur, etc.; for this reason, flies should never be left exposed in the hat. Feathers should be kept in boxes, in which there is plenty of naphthaline crystal or albo-carbon. There is no necessity for the box to be air-tight (although, of course, it is preferable, to keep away dust); no moth will ever come near the crystal; at least such is my experience. This crystal can be obtained from naturalists or chemists. It should be renewed from time to time, as it evaporates. If moth is actually in any feathers or skins, they should be immersed in benzoline for a few minutes, and before they are put away should be thoroughly dried in the open air. If feathers of any kind, coarse or fine fibred, have lost their shape, hold them in the steam of a boiling kettle (the larger and stronger the jet the better) for a minute or two, and carefully smooth the fibres into their places. If you take a large feather, say a golden pheasant's tail feather, and crunch it up in your hand, and then steam it, it will come out as if just taken from the bird. Feathers, too, if dirty, can be washed in soap and boiling water, and steamed afterwards.

Scissors.—I advise the fly-tyer to have two

pairs of embroidery scissors, one of which should have the points ground as fine, flat, and sharp as

Fig. 6.

possible : this pair is for cutting off feathers and silks closely ; the other pair should be kept for cutting tinsels, gut, etc.

Hackle Pliers.—Of these, also, I advise the fly-tyer to have two pair—one light and one heavier, as shown. The reason for this will appear later on, when we come to the chapters on tying. These pliers can very easily be made at home with a file from a piece of brass wire, care being taken that the whole of the nipping part will grasp anything placed in it.

Picker.—The best for this is a stiletto, as used for embroidery, and as shown. It should not be very sharp, or silk, etc., will be liable to be cut.

Cobbler's wax is the best for fly-tying. It should be obtained fresh frequently, for it rapidly loses its strength, and then clogs on the silk. It

is nasty stuff to handle, until practice has taught you when to let go of it. Keep it in water.

Varnish.—The best receipt I know of for making this is as follows :—Half fill a bottle with orange shellac ; then fill up the bottle with spirits of wine, then put in a small piece of white resin, about the size of a nut to a 3 oz. bottle ; cork the bottle, and leave it until the shellac and resin are dissolved. This varnish dries quickly, and will not chip or turn white. Should it at any time be too thick, add a little more spirit, and shake well. To apply the varnish use a porcupine quill, or piece of wood. It is liable to ‘run’ from a brush and spoil silk, feathers, etc.

A *Vice* is not necessary, but the use of one afford many advantages : the work can be kept cleaner ; no part of the fly need be crushed ; both hands are free, and I find I can work more accurately with one. There is generally a hook attached to the pillar of the vice. The object of this is to enable you to hook the silk on to it when waxing. It is cheaper in the end to buy a good vice and pay a little more for it, than to get a cheap one which will wear out quickly.

Methylated Spirit.—Always have a bottle of this and a rag near you when fly-making. The fingers can be cleaned of wax, etc., in a moment, by pouring a few drops on to the rag and rubbing them. Let me here impress on the beginner the importance of keeping his fingers clean and free

from wax while fly-tying. It is impossible to tie a good fly with waxy fingers, and you cannot get wax off a floss silk body.

Gut.—If you are going to tie your flies on hooks with gut loops, have a good selection of the best salmon gut,—light, medium, and thick. It should be kept from light and air as much as possible. A bag made of wash leather is perhaps the best thing to keep it in.

DEFINITIONS.

As the beginner will probably be puzzled to know the meaning of terms used and the different feathers spoken of in the descriptions of dressing of flies, an illustration is given showing the names of the different parts. The following will also be useful :—A ‘ Topping or Crest ’ means the feather from the head of the golden pheasant ; ‘ tippet feather ’ means the feather from the throat of the same bird, and when written so, means that a whole feather is used. ‘ Strands of tippet ’ means a few fibres only of the same ; ‘ Toucan ’ means a whole feather from the breast of that bird. ‘ Canary Toucan,’ a whole canary-coloured feather from the same bird. ‘ Indian Crow ’ means a whole red feather from the breast of that bird. ‘ Chatterer ’ means a whole feather from the back or breast ; ‘ Jungle Cock,’ a whole feather from the neck ; ‘ Mallard ’ means the dark brown mottled flank feather ; ‘ Grey Mallard,’

the speckled grey feathers on the breast and flanks; 'Summer or Wood Duck,' means the black and white barred feather from the flanks; 'Gallina, or Guinea-fowl,' means the speckled

Fig. 7.

grey and white feathers; 'single spotted' Guinea-fowl refers to the dark feathers with white spots and no speckle.

NAMES OF DIFFERENT PARTS OF FLY

1. The Tag.	7. Wings.
2. The Butt.	8. Topping over.
3. The Tail.	9. Horns.
4. Joint.	10. Cheeks.
5. Hackle.	11. Head.
6. Shoulder Hackle.	12. Gut Loop, or Metal Eye.

CHAPTER III.

ON DYEING FURS AND FEATHERS.

HE materials required are few in number. They are, a large kettle, several glass stirring rods, several small common basins, some carbonate of potash, powdered alum, common yellow soap, soda, sulphuric acid, vinegar, and the dyes.

There are several varieties of dyes to choose from, such as Aniline, Crawshaw's, Judson's, and the diamond dyes. They are all equally good, but the shade, say of blue, made by one manufacturer, differs from the shade of blue made by another. It is only by trial, therefore, that the reader can satisfy himself which shades will best answer his purpose.

The preliminary treatment for all kinds of feathers and furs is the same. They must be thoroughly cleaned, and their natural grease extracted. If this is not done, the colour will not be taken thoroughly into them, but will be superficial, and in most cases will not strike at all.

How to Clean Feathers and Fur.—There are several ways of doing this. The first is by washing

with soap. Having selected the feathers, strip off all the downy fluff that will not be wanted for the fly. Many tie them up in bunches : it is a matter of choice, though. Place the feathers or fur in a basin ; then cut up, and put into it a piece of yellow soap, about the size of a nut for a quart of water. Pour boiling water into the basin, and stir well with a glass rod until all the soap has dissolved. After a few minutes the feathers or fur can be taken out and placed in clean cold water, and well washed in it. Common washing soda can be used instead of soap, but a very little of it will suffice ; if you use too much the feathers will be burnt.

Another way is to use carbonate of potash ; about a teaspoonful to a quart of water is quite enough ; but the feathers or fur in this case should be left in for at least twelve hours, and afterwards washed in clean cold water.

Another way is to use alum, about one ounce to a quart of water ; the feathers or fur should be left in for some hours. This is a good fixing bath.

The next process is to place the feathers or fur in a *fixing* bath ; alum dissolved in boiling water is as good as any, about one ounce to a quart of water. Of course this process will be unnecessary if you adopt the last-mentioned method of cleaning the feathers and fur. A quarter of an hour will suffice, when the feathers or fur

should be again washed in clean cold water, unless you are going to dye them blue.

To *dye* the feathers or fur, put a small quantity of the dye into a basin. It is impossible to state the exact quantity, but it is better to err on the safe side, so put in at first a few grains only ; more can be added afterwards if necessary. Now pour boiling water over the dye, stir until dissolved, add the feathers or fur, and keep up the heat by placing the bowl in a saucepan containing water, on the fire, for a few minutes, stirring continually.

A small pair of scales, which will weigh grains and half grains, is very useful for measuring out the dyes. A record should be kept of the exact quantity used, both of water and dye, and the same written on the packet in which the feathers are afterwards kept, so that at any time the same shade can be obtained without any trouble. Neglect of this means endless waste of time and materials. Some colours, blues and reds especially, strike better if a little acid is added to the dye bath. I use vinegar, or sulphuric acid, about a teaspoonful to a quart of water. It should be added after the feathers have been in the dye bath a few minutes ; stir well while you add it. When thoroughly dyed, take out the feathers or fur and wash them in hot alum and water, or toilet-soap and water. Finally, rinse in cold water.

Many people boil or simmer their feathers, etc.,

over the fire, or a spirit lamp, during each process of cleaning, fixing, and dyeing. It is not necessary, except in one or two cases, and without great care feathers are liable to be burnt. The dyes, too, will not last longer for boiling. Sulphuric acid must be used for blues. Great care, though, is necessary, as it will burn anything with which it comes in contact. Should any get on to the hands or clothes, apply ammonia, not water. When using it proceed as follows :— Pour a teaspoonful into an empty basin, then pour in half a tumblerful of *cold* water. The acid will heat the water. Next pour in some boiling water, in which dye has already been dissolved, put the feathers in, and proceed as before. When pouring the cold water over the acid, do not stand over the basin.

To dry feathers, take them out of the cold water one by one, and place them on a plate before the fire—not too close, though, for they scorch easily. Several shades and varieties of colour can be obtained by dyeing (in the same bath) the following kinds of hackles : white, white furnace, and coch-y-bonddhu ; red furnace and coch-y-bonddhu, and black. They all take the dye well. Put in also guineafowl's feathers, teal, turkey, swan, tippet feathers, etc. They are sure to come in useful. Blue is the only colour that must have a white ground—that is, if you want a pure blue ; for, supposing that you dyed a

yellowish hackle blue, the feather would have a green tinge when held up to the light.

The colour of a hackle can only be judged correctly when held up to the light, in such a position that the colour can be seen through the fibres. If you look down on, say, a black hackle, it would be impossible to tell whether it was dyed or not. The only colour which I believe cannot be obtained from any of the kinds of dyes mentioned at the commencement of the chapter is a golden olive. To obtain it, boil an ounce of turmeric in a quart of water for a quarter of an hour, strain off the liquid, and dye the feathers in it. The turmeric must be fresh. It can be obtained from chemists.

Many other colours can be obtained by dyeing feathers and fur, first one colour, then another, or by mixing two or more colours together.

To kill or sadden any colour, place the feathers after they are dyed in hot water in which copperas has been dissolved. A piece the size of a hazel nut in a quart of water will be sufficient; but you must watch the feathers, and immediately they have obtained the shade required, wash them well in clean cold water.

CHAPTER IV.

GUT LOOPS, ETC., TAGS AND TAILS.

IN order that his flies, when made, may be efficient, and not objects to look at merely, the beginner is strongly advised not to be in too great a hurry to see what he can do, but to begin methodically, slowly, and carefully, and try to master each part or process before going on to the next. In the following pages I have endeavoured to write down every little detail that is likely to assist the beginner. However trivial they may appear at first sight, I venture to hope that, by following them closely, he will find each one will give him a fraction of assistance towards overcoming his difficulties. The general rules to be borne in mind throughout the tying of a fly are as follows:—The tag should taper slightly towards the head; the tail should be perfectly straight with the body, which should taper from tail to shoulder; the hackle should be tightly wound, the wings perfectly straight on top of the hook, even, and firmly tied; the head firm, small, and tapering; and when the fly is finished, at no part

should the tying silk be visible, except the head. If most of these details were not attended to, in all probability the fly would not swim straight in the water, and a salmon fly that 'wobbles' or swims crookedly is useless.

Now, the first thing to do is to lay out on a table (which should be placed in a good light) everything that will be required, except the feathers for the wings, which can be left for the present. Fix the vice firmly to the right-hand corner of the table, and secure the bend of the hook in it—shank to the right, barb downwards. Learn to tie on a good-sized hook, not smaller than a No. 2/0. You will find it easier than if you began on a smaller one—say a No. 3 or 4. We will begin with an ordinary hook, to which a gut loop must be attached. Take a piece of gossamer silk about two feet long, double it, place it so doubled over the hook attached to the pillar of the vice, holding the four strands in your left hand, and rub some cobbler's wax along it a few times above and below. Take the silk off the hook, pass it once or twice between finger and thumb to get the twist out. Next, select three strands of good sound gut (which should have been previously well soaked in water), twist these tightly and evenly together for about two inches, double this treble piece so as to form a loop. If the gut has been properly soaked, the strands will not untwist when laid down. Hold-

ing the six ends together, with a sharp knife or pair of scissors cut them so as to form a taper, each strand being of different length; but the longest should nearly reach to a spot above the point of the hook when the loop is placed in position under the shank, the loop projecting about one-fifth of an inch beyond the hook to the right. Some fly-makers use two strands of gut only, doubled but not twisted. The ends should be tapered in the same way. For very small flies, single salmon gut only should be used, the stouter and stronger the better, the ends being tapered as before. The method of tying them on is the same for all, and is as follows:—Holding one end of the doubled tying silk between forefinger and thumb of the left hand, close to the hook (the right hand holding the silk eight or nine inches higher up), and commencing about one-third of an inch from the end of the shank, wind four or five spiral turns of the silk tightly

Fig. 8.

round the bare hook towards the head; take care not to go within one-eighth of an inch of the end of the shank, which must be left bare until the wings are tied on. Cut off the short

end held in the left hand (the wax prevents the coils from untwisting). Now pick up the gut loop,

and placing it under the shank, hold it there between the forefinger and thumb of the left hand, while you wind the tying silk closely and tightly round both hook and gut, towards the bend of the hook. Be very careful to keep the gut straight under the hook, and do not let the silk twist, or one coil ride over another. The more evenly this is done the more easy will it be to form the body correctly afterwards. Wind on until all the gut is covered, then pressing the forefinger of the left hand against the last coil of silk, on the far side of the hook (to prevent it getting loose), form a half hitch as shown, pull it tight, and cut off the end close. With the nails of the fore-

Fig. 9.

Fig. 10.

finger and thumb of left hand, pinch the gut tightly at the head, while you push the stilletto up through the loop from below, to shape it as shown. Now varnish all the tying lightly. If all has been correctly done, the fastening will be perfectly smooth and evenly tapered, and the loop will appear as shown.

With eyed hooks gut is of course unnecessary, but to prevent the work slipping it is advisable to wind a smooth, tight layer of the doubled tying

silk up the shank, commencing, though, close to the eye, but finishing off as for the gut loop. With very small flies there is no need to finish off the silk; one piece will be sufficient for the whole fly, and can be carried on without any half hitch; the layer of silk should be varnished. It is of the greatest importance that the silk during these operations, and throughout the whole process of making the fly, should be kept tight.

If a vice is not used, the hook must be held in all cases between the forefinger and thumb of the left hand, pressing the middle finger against the hook to prevent the silk unwinding or becoming loose, while you finish off.

TAGS.

Nearly all salmon flies have what is called a 'tag.' It is usually formed with gold or silver twist or wire and floss silk or fur, or twist or wire only. We will begin with the first mentioned. In this case the twist should commence at a spot immediately above the point of the barb. Take a fresh piece of tying silk, doubled and waxed as before, and, commencing close to where you left off tying on the gut, wind a turn of the tying silk (the short end of which should be to the left) round the bare hook, tying down at the same time the short end. After three or four more turns cut off the short end close, and wind on another turn or two. Now take the heavy pair of pliers, attach them to the

tying silk, a few inches below the hook, and leave them hanging, they will prevent the silk untwisting, and keep it tight. This is a very useful plan when tying on eyed hooks, as the fly can be left at any stage without fear of any part becoming

Fig. II.

loose; of course the heavier the pliers are in reason, the better. When tying flies on hooks with gut loops, fly-tyers generally wedge the silk between the hook shank and gut loop. I don't like this method, as it tends to loosen and displace the tying silk there, especially if done several times. Another way is to wind on a few turns of tying silk roughly, and then a few turns back over them.

Take a piece of gold or silver twist, about three inches long: holding it tightly between the nails of the forefinger and thumb of the left hand, so that about one-eighth of an inch is projecting to the right, pull off with the nails of right hand the twist, from the projecting end, when the inside silk or core will be exposed. With the thumb of the left hand hold the twist against the side of

the hook (the exposed core to the right) so that the commencement of the twist is exactly above

Fig. 12.

the point of the barb ; wind the tying silk over the exposed core closely, tightly, and evenly until you reach the twist, then wind back four or five turns evenly as before, and leave the pliers hanging to the silk. Next take hold of the twist between the forefinger and thumb of the right hand, and wind three or four tight close turns,—the first coil being round the bare hook, the remainder over the coils of tying silk ; then, still keeping the twist tightly pulled towards you, take one turn of the tying silk over it : let go of the twist, cut it off about

Fig. 13.

one-eighth of an inch from the hook (keeping the

tying silk tight though), and with the nails remove the twist as before, leaving the core exposed; take two or three more turns of the tying silk, and let go of the pliers.

Now, take five or six inches of fine floss silk, smooth it carefully between thumb and forefinger, so as to get any twist out. The fingers must be perfectly clean and free from wax, so don't forget the methylated spirit. Place the floss against the side of the hook, diagonally as shown, and wind

Fig. 14.

three or four turns of the tying silk over it, the coils being close, even, and to the right of the last coils. Cut off the end of the floss closely. If the floss was not tied in diagonally, there would be a ridge there. The floss must now be wound to the left as far as the twist, then start back again to the right. There should be a slight taper from the twist, so you must wind the coils closer as you go. The floss should nearly reach to a spot

above the point of the hook. The great secret in winding the floss is to keep it flat, and not

Fig. 15.

allow it to twist; so after each turn, pass the fore-finger and thumb down it.

Fasten off the floss under the hook with one or two turns of the tying silk, cut off the end closely, varnish the two turns of tying silk, taking care that none runs on to the floss: the tag is now complete.

In some flies, instead of floss silk, seal's fur, pig's wool, or mohair is used; after winding on and fastening off the twist, wax the tying silk well,

Fig. 16.

take a small quantity of fur between the fore-finger and thumb of the right hand, holding the

tying silk taut with the left hand, twist the fur on to the tying silk, and keep on twisting until the fur is thoroughly round the silk and conceals it. Now wind it straight round the hook. The beginner generally twists on too much fur—a very little will suffice, as shown. As soon as you have wound far enough, pull off with the nails any excess there may be, wax the silk again, and take one turn.

Fig. 17.

Be careful that no tying silk shows between the twist and floss or fur, before you go further, as it is unsightly.

When there is to be twist only for the tag, the first coil should begin at a point immediately above the root of the barb, but end in the same place as floss or fur.

If the tag is to be ribbed with twist, the latter should be tied in (stripped at one end as before) with the floss. The floss is then wound on, finished off, and then the ribbing twist is wound on and finished off.

TAILS.

The feather used for this part of the fly, more than any other, is the topping from the golden pheasant's head, so we will begin with that. Beginners will find it rather a troublesome feather to tie in correctly, *i.e.* on the top of the hook and the shaft in a direct line with the shank, and not leaning over to one side. Select a feather suitable to the size of the hook, and pull off all the fluffy fibres. An examination will show that the centre rib of the outside of the feather is curved, and of the inside, pointed. Consequently, when placed on the hook, and the silk wound round, the latter pulls the feather over to one side. To obviate this, the quill must either be held inclining

Fig. 18.

towards you whilst being tied on, or the shaft must be flattened where the silk will pass. I recommend the latter. The way to hold the feather is shown in the illustration. The thumb nail should be pressed tightly on to the quill,

close up to the fibres, while the feather is drawn to the left, with the left hand. Take great care, though, that the feather does not incline to one side. To tie it on hold it between the forefinger and thumb of the left hand on top of the hook,

Fig. 19.

while you wind two turns of the tying silk round, the first turn being close up to the fibres, but not over them. Cut off the projecting end quite close, wind one more turn of the tying silk, then varnish.

If the fly is to have two toppings, they should be placed side by side and tied on together. The same number of turns of tying silk will be sufficient. Another kind of tail is composed of fibres or strips of different feathers, curved upwards like a topping; but before describing how to tie them on, I must direct the reader's attention to a few important facts about feathers, on the knowledge and application of which neat work greatly

depends. If you look at a feather, you will see that the fibres on both sides of the shaft curve naturally towards the point of the feather. As an example, take the two mallard feathers shown ; the

Fig. 20.

curve is more defined in these feathers (which are taken from the flanks) than in others, although it is there more or less in all feathers.

The feather on the right of the illustration is taken from the right side of the bird, the other from the left. Now, when using strips or strands for wings or tails, the fly-tyer must always be careful to put them on their proper side of the hook. As an illustration of this, suppose that you want to tie on a tail consisting of strips of summer duck, curved up like a topping, cut off a narrow strip from a right side feather and from a left, place them back to back, the one exactly covering the other, the best side of both outwards. They will coincide, which is what they should do. Suppose, now, that instead of taking a right and left strip, you had taken two rights or two lefts,

placed them back to back, best sides outwards as before, then one would turn up and the other down, so that symmetry would be lost.

Another fact,—a very useful one too ; the edges of every fibre in a feather are covered with fluff, by means of which single fibres or strips of different feathers can be united, so as to form one broad strip, but you can only unite a 'right' to a 'right' and a 'left' to a 'left.' The curves of the fibres going in opposite directions prevent a 'right' and 'left' uniting.

Take a strip, say, of bustard and of swan, both 'right' ; hold both by the butts between the forefinger and thumb of the right hand, one above the other, best side of both towards you ; pass the left thumb and forefinger along them, from right to left, two or three times ; you will find that the two strips will unite, forming one broad strip.

One more useful fact is, that the centre shafts of all feathers curve more or less in exactly the same way as fibres do. There are 'rights' and 'lefts' ; and whenever whole feathers are tied in for tails, or wings, these feathers must be placed on their proper side of the hook. For example, take a 'right' and 'left' blue chatterer feather, both the same size, one from the right shoulder of a bird, the other from the left shoulder. Strip off all the fluff ; place them back to back, *i.e.* the best side of both outwards. They will then

Fig. 21.

coincide, because the curves of both feathers are in the same direction, whereas if you placed a 'right' and a 'left' back to back, one would curve up and the other down.

We will now proceed with the directions for tying on tails. In addition to a topping, some flies have small whole feathers of chatterer, Indian crow, or jungle cock, tied in upright back to back, or one tied in flat. As an example, select a 'right' and 'left' chatterer, strip off all the fluff, place them back to back. Hold them so, vertically, between the thumb and forefinger of the left hand, with the stems projecting beyond the thumb and finger to the right. With the thumb of the right

Fig. 22.

hand make a dent in the two shafts in exactly the same way that you did the topping. Still holding them between the thumb and forefinger of the left hand, place them on top of the hook, over the topping, separate the two stems slightly so

that they will lie one on each side of the stem of the topping, and wind two turns of the tying silk over those turns which tied in the topping. Cut off the shafts close, take one more turn of silk, and varnish.

When a whole feather (such as Indian crow) is to be tied on flat, the dent in the shaft is made in the same manner; but the feather is held in a horizontal instead of a vertical position. It should be tied on over the stem of the topping.

In tying on a tail composed of strips and strands, the method of holding the feathers is different. We will suppose that you want to tie on a tail composed of strips of summer duck and of yellow macaw. Cut off a 'right' and 'left' strip

Fig. 23.

(three or four strands only) of each. Unite the 'right' summer duck and 'right' macaw; do the same with the two lefts; place them back to back. Hold them on the top of the hook in the position

shown in fig. 23 (the finger and thumb are grasping the hook and feather at the same time) ; take hold of the tying silk, and, keeping it tight, just move the thumb sufficiently to admit the silk to pass upwards between it and the hook ; then close it to the hook again, wind on, move the forefinger momentarily to let the silk pass down between it and the hook ; then squeeze the thumb and finger gently to the hook, while you pull the tying silk down tight. Repeat this once more, remove the left hand, and if correctly done, the

Fig. 24.

fibres will appear as shown, straight on the top of the hook. Cut the stumps off as close as possible, holding the scissors *along* the hook shank, not across it ; now, wind one more turn of the tying silk, and varnish.

Instead of strips of two feathers, single strands from any number of different feathers can be tied on in the same way ; always taking care to keep

the 'rights' and 'lefts' on their own side of the hook.

One more variety in tails is composed of single strands of different feathers,—'rights' and 'lefts' being mixed together anyhow. To tie them on, place them flat on the top of the hook, spread

Fig. 25.

them slightly, and press them there with the thumb or forefinger while you wind the usual two turns of tying silk: the stumps are cut off as before, and varnished.

Be very careful when tying on tails of any kind to cut off the stumps as close as possible, so that when the butt is tied on there will be no lump or ridge to the right of it.

When the beginner has had a little practice, and can handle the tying silk easily, instead of fastening off the floss of the tag with one or two turns of tying silk, and then tying on the tail with two or three more turns over them, he can tie on the tail, and fasten off the floss together. This

is a neater method, as the ridge formed is not so great. Not that it matters very much where there is to be a butt, as the ridge is then concealed; but where there is no butt, the floss *should* be fastened off, and the tail tied on, together.

CHAPTER V.

BUTTS, RIBBING, BODIES, AND HACKLES.

BUTTS.

THE materials used for this part of the fly are either ostrich herl dyed different colours, or peacock's herl, or wool. The latter are the stronger, although not so effective.

Herl Butts.—For the size of hook illustrated, select a herl of medium length, and holding it between forefinger and thumb of the left hand against the side of the hook, the fibres to the left as shown, tie the end in with two turns of silk: cut off the end close up. The fluffy edges or fibres should always

Fig. 26.

point towards the tail; not only because it conceals the tying silk which fastens off the tag and ties on the tail, but because it looks so much neater, and the fibres will work better in the water. Attach the pliers to the end of the herl, and wind it carefully round the hook at

Fig. 27.

right angles to it, the first coil passing over the first coil of the tying silk which secures the tail. Three or four turns of the herl, close to one another, will be sufficient. Fasten the herl in by one turn of the tying silk, and cut off the end close.

Many fly-tyers tie in the other end of the herl first, but it is not nearly so strong; on the other hand, it is neater, as there is less quill.

Wool Butts.—To form these with, take a short piece of wool of the colour required, and with the nails tear a quarter of an inch to pieces, pick it up, and spin it on to the tying silk (in exactly the same way you did the fur for the tag), and wind three or four turns. You should endeavour to make the outline of the butt oval, not flat, as

Fig. 28.

shown. The mistake generally made is that these butts are made too large, and without shape, owing to the wool being spun too thickly on to the tying silk. There is another way,—certainly a quicker one, but not so neat,—and that is, to tie in a short length of very fine wool, just as you would a herl, and then to wind it very tightly round the hook, finishing off under the hook as before.

RIBBING.

The same turn of the tying silk that fastens off the butt should tie in the tinsel for ribbing the body. This should be stripped at one end previously, in the manner described for tags: it should be placed against the side of the hook, and the turn of tying silk over it should be close up to the butt. Don't cut off the exposed core of floss at present. If tinsel and twist are to rib the fly, both should be tied in together; whichever of the two is to lead up the body should be tied in below the other. It is better for the tinsel to lead, as the twist which follows will then protect the hackle, as will be seen later on when we come to hackles. As the body has to be formed before the ribbing can be rolled on and finished, we will leave this part for the present, and go on to describe how bodies are formed.

BODIES.

This part of the fly is formed either of seal's fur, mohair, pig's wool, floss silk, tinsel, twist, chenille, or herl. In all cases the body should taper slightly from the butt to the shoulder. With some of the above materials this taper can be formed as you proceed; with others the taper must be formed before the material is wound on.

Fur body without hackle.—In this case you can either make the taper before you wind on the fur, or you can increase the quantity of fur on the tying silk, and wind it more closely as you progress. If you choose the first, take a well waxed doubled piece of tying silk, and tie it in close to the butt; wind the original tying silk closely and evenly up the body, and tie in a piece of floss silk as shown. Cut off the end of the floss silk,

Fig. 29.

wind one more turn of the tying silk towards the head, and leave it hanging with the pliers attached. Now, wind the floss evenly down to the butt, and back again up the body, forming a taper as you do so: wind a turn or two of the tying silk over to fasten the floss off, cut the end of the latter off, and leave the silk hanging, pliers attached. Now, take some fur, spin it on to the

tying silk, which you fastened in at the butt, and wind it round the hook—as evenly as possible. You cannot spin enough on for the whole body at once, so spin on an inch or two, wind that on, and repeat the same until you come to the end of the padding. Remove any superfluous fur from the tying silk with the nails, and fasten off with the original tying silk which was left hanging here. The ribbing tinsel is now wound on in

Fig. 30.

tight parallel coils. To fasten it off, wind two turns of the tying silk over the end, cut off the end to within about one-eighth of an inch from the hook. Strip this end of the tinsel, keeping the tying silk tight while you do so; give the exposed end a strong pull, cut off closely, wind one more turn of the tying silk, then varnish.

It is very important with fur bodies that the ribbing be tightly wound, as the fur is liable to gradually fall out, and thereby leave the ribbing loose.

It will be noticed in these illustrations that the bodies, instead of ending abruptly, are rapidly tapered to a level with the hook. This is done with the object of giving a sound surface for the hackle to be wound upon, to admit of the fibres playing properly, to prevent the set of the wings being interfered with, and to enable the fly to swim properly, without making a furr in the water. With fur bodies it is a very good plan to commence at the butt with a turn or two of floss silk of the same colour as the fur; the butt then stands out more distinctly. The floss can be tied in, wound on, and finished off before the remainder of the body is formed.

The hackle on a fur body should be tied in a short distance from the butt; where the second

Fig. 31.

turn of the ribbing will pass is the best place, or,

if you begin the body with a turn or two of floss silk as described above, the junction of the floss and fur is the best place.

The point of the hackle should be tied in on the top of the hook, as shown, with a couple of turns of tying silk,—the fur is then completed up

Fig. 32.

the body ; but in doing so, care must be taken not to tie in any of the fibres. The hackle, before being tied in, must be ‘doubled.’ Directions for ‘doubling’ hackles are given in the next chapter.

Floss silk bodies.—After tying in the ribbing tinsel at the butt, wind the tying silk as evenly as possible up the body, and tie in the floss, as shown in the illustration for padding fur bodies ; then form the body, tapering it as shown (Fig. 33), fastening off the floss at the shoulder and varnishing. If a hackle is required up the body, it

should be tied in as you wind the tying silk up from the butt; but care must be taken, in winding

Fig. 33.

the floss afterwards, that no fibres are caught in. The ribbing, as before, must pass immediately in front of the hackle.

In some flies there is no butt at all; but floss silk, which forms part of the body, is wound close

Fig. 34.

up to the tail and floss of the tag. You must be careful to avoid a lump or ridge where the tail is tied in; so, after tying in the tail and the ribbing

(the ends of which should not in this case be cut off) wind the tying silk closely and evenly for a short distance up the body, then tie in the floss, and proceed as for an ordinary floss or fur body.

If one half of the body is to be, say orange floss, the other half black floss, the best plan is to complete the formation and tapering of the orange half first, and then the same with the black, completing the taper as you go. Be careful to have no lump or unevenness at the junction. It may be as well to remind the reader that floss silk must be smoothed before being wound; that it must be kept as flat as possible, and not allowed to twist when being wound on; also, that the hands must be clean.

Tinsel bodies.—There are several ways of tying

Fig. 35.

on the tinsels for these bodies. I will describe

the two which I think the best. The first of them is as follows :—After the butt is completed, the ribbing tinsel and body tinsel are tied in with the same turn of silk. Before tying in the body tinsel, cut one end to a taper, then with the taper downwards, and to the left, tie in at the side of the hook just the point with the one turn of silk. With a knife lift up this point and turn it back over the tying silk, and press it slightly with the nail ; leave the tinsel hanging there, and wind the tying silk evenly up the body, then tie in the floss for padding the body. This padding must now

Fig. 36.

be most carefully done, and, when finished, with the stiletto scratch the surface of the floss all over, then varnish it ; while it is drying, smooth it with the blade of a penknife. If this is properly

done, the body will, when the varnish is dry, be quite smooth all over. Now wind the tinsel

Fig. 37.

round the hook, the first turn close up to the butt. Don't let one coil overlap another, but press the tinsel against the last turn as you wind. When

Fig. 38.

you have covered the whole body, wind three tight turns of the tying silk over the tinsel, at right

angles to the hook ; cut off the end as close as you can, and then, with the nails, press the edge, so cut, down, and wind a turn or two more of the tying silk. The ribbing is then wound as before. When there is to be a hackle down the body, it is tied in by the body tinsel only, which, if tightly wound, will hold it firmly enough ; but in this case the ribbing must pass—actually pass—over the stem of the hackle, otherwise it would be easily cut by the edge of the tinsel when you were about to wind the hackle.

For jointed bodies, or for small flies, use the tinsel of medium width.

The second way of tying in the tinsels involves their being tied in with the tag, and is as follows:— After the floss for the tag is tied in, tie in a piece of ribbing tinsel, stripped as usual at the side of the hook ; but in this case the ribbing tinsel, when tied in, must lie to the right : wind on the floss for the tag, finish it off, and tie in the tail with two turns. Take the body tinsel, cut to a taper at one end, as in the first method, and with the taper to the left, the tinsel inclining to the right, tie it in with one turn of tying silk, close to the point immediately above the ribbing ; turn the point back over the tying silk as before ; tie in the herl or wool for the butt, wind it on, and finish it off under the hook ; but in doing so, don't tie down the tinsels, but pull them back out of the way so that the tying silk can pass close up to

the butt. From this point the method of completing the body is the same as the last. I should say that, in tying in the ribbing, you must judge the distance, so that the stripped part will just come to the last turn of the butt. Tied in

Fig. 39.

as I have described, there cannot possibly be any lump or ridge on the body close to the butt, and there is nothing to show how or where the tinsel is tied in. If the exposed internal silk of the ribbing tinsel is cut to a point, it helps to taper the tag.

Chenille bodies.—Before fastening these in, strip off with the nails about a quarter of an inch of the fluff which forms the chenille, leaving the internal threads bare. Tie in these threads at the side of the hook, and wind the tying silk up the hook as usual. Little or no padding is required. If the body is to have chenilles of

two different colours, they should be tied in together at the side of the hook, one above the other, and rolled round together.

Tinselled chenilles are tied in in the same way ; but while winding them with the right hand, work the tinsel down the thread with the left, or you will find that the act of pulling will spread out the tinsel, and leave the internal thread exposed.

Herls.—For bodies these should be tied in two at a time in the same way as for butts, and rolled on their sides up the hook. If not long enough for the whole body, finish them off, and tie in fresh ones with the same turn of tying silk ; with care there will be no perceptible difference in the thickness of the body at the junction. Another way, much stronger, but not nearly so neat, is to tie in the herls with two turns, twist them round the tying silk, and roll all round the hook together.

Length of bodies.—So far, I have not said how far up the hook the body should extend. This will depend upon how many turns of, and how many hackles there are to be at the shoulder. As these vary considerably, and in some cases there are no hackles (whole feathers, which take up no room, being used instead), some difference must be made ; but no rule can be laid down, and practice only will tell you how far to go.

Ribbing continued.—In all cases ribbing should

be tightly wound, or it will soon get out of place. As to the number of turns down the body, you must be guided chiefly by the pattern and quantity of hackle you want on the fly, because the more closely the ribbing is wound the more fibres of hackles there must be. To fasten it off, wind two tight turns of the tying silk, then give the tinsel a pull, cut off the end to within about one-eighth of an inch, strip it, wind one more turn, cut off close, and varnish.

Ribbing should always be wound on in front of the hackle, because the stem of the latter following close up behind is then protected.

CHAPTER VI.

HACKLES, JOINTED BODIES, AND GRUBS.

HOW to double hackles. Before being tied in, cock's hackles, whether dyed or natural, should be what is called 'doubled.' The illustration shows the same hackle before and after being doubled. The object of shaping the feather so, is to enable you to roll it down the body with all the fibres pointing towards the tail. If the feather were not doubled, you could not wind it properly. The old way of putting on the hackle was to strip off one side entirely of two hackles, and roll them both together; this is done now with feathers which have curved fibres, and when two different coloured hackles are required up the body. There are several ways of doubling hackles. The first,

Fig. 40.

and perhaps the easiest, is to hold the feather (previously stripped of fluff) as shown in the illustration. The wrong, or under side of the feather must be upwards. After getting the feather into the position shown, with the thumb and forefinger of the right hand draw the fibres

Fig. 41.

upwards, and towards the root of the feather, or, in other words, against the grain of the fibres, which is the secret of success. In the illustration this has already been done, leaving the fibres in the doubled position. If you prefer it, the root end of the feather can be held in the nippers, and the point between the forefinger and thumb. The second method, not so easy at first, is to hold one pair of nippers, which grasp the root end of the hackle, in the palm of the left hand, as shown, leaving the forefinger and thumb free. The second pair of pliers, grasping the point of the hackle, is held in the right hand; in this case the best or out side of the hackle is uppermost.

To double the fibres, press the forefinger and

thumb of the left hand down on to the feather, against the grain of the fibres. With large feathers there is no need to use the pliers, as the butt can be held in the first joint of the middle or third finger, and the point can be held between the forefinger and thumb of the right hand. If you want to double such feathers as

Fig. 42.

the tippet feathers of the golden pheasant, wet them first. The fibres bend more readily then.

How to strip hackles.—Some feathers used as hackles have a very thick rib or stem, which, if wound on, would not only stand out, but would spoil the play of the fly; so this rib must be got rid of. The barred feather from the wing of the English jay is the best example. You can either strip off the quill from the point, downwards, or cut it off. I prefer the latter way, as, unless the feathers are pretty fresh, nine times out of ten you lose half the fibres with the first method, as the stem near the point is so thin. The following is the best way to cut it off. After stripping

off the black fibres on one side, hold the feather by the point, between the forefinger and thumb of the left hand, the wrong side uppermost, and with a pair of scissors cut horizontally from the butt, to as near the point as possible (taking care, though, not to cut right through the rib), taking off as much of the rib as you can. Now, lay the feather down on its back, and, with the point of a knife, scrape away the pith very gradually; if this is carefully done, nothing but the quill will be left, except of course near the point. If the quill towards the butt end is too broad, a little can easily be cut off with the scissors or knife.

Winding on and fastening off hackles.—After the body and ribbing have been finished, the hackle must be wound on. So fix the pliers to the root end, and wind the hackle down, close up to, and immediately behind the ribbing, twisting the hackle, if necessary, to make the fibres point towards the tail. Hackles must always be wound tightly, otherwise they will soon lose their position close behind the tinsel, and spoil the play of the fly in the water.

When you come to the end of the ribbing, wind the hackle at right angles to the hook, covering and concealing the tying silk underneath. Each coil of the hackle should be close against the last, but never overlapping it, or the fibres of the last turn would be tied down, and prevented from

playing; press back each coil against the last with the nails of the forefinger and thumb.

All hackles should be fastened off under the hook. The figure shows how to ensure your doing so. Wind two turns of the tying silk over,

Fig. 43.

pull the hackle hard, press the last coil well back against the others, cut off the end close, and take one more turn. The scissors should be held along the shaft in cutting off the stump, so as to taper it slightly. In the illustration the shaft of the hackle is pulled a little more to the right than it should be, but this was done to show the position more clearly. If the hackle is not long enough to go further than the tinsel, it should be fastened

off there under the hook, and another one, previously doubled, tied in with two turns of silk, as

Fig. 44.

shown. The end should then be cut off close, and the hackle wound on and finished off as

Fig. 45.

before. This, also, is the method adopted for tying in hackles at the shoulder when there is

none down the body. You can tie in as many hackles as you want in the same way. As I said in the last chapter, the last turn of the last hackle should come to the spot where the wings are to be tied in. This will depend upon the size of the fly. The distance shown in the illustration is about right for that size of fly. On a hook with gut loop the hackle should reach to the lapping of silk which ties on the gut loop.

Before tying in thick stemmed hackles, soak them in warm water; they then wind more easily, and are not so liable to split. With very fine fibred feathers, such as toucans, tie in two or three of the same size together, and wind them on together.

Hackles with curved fibres.—Feathers with curved fibres, to be used as hackles, should not be doubled. As examples, take jay, teal, or guineafowl's feathers. If these were doubled, the fibres would appear curved, in opposite directions, when wound on the hook, and spoil its appearance. To obviate this, one side must be stripped off. The illustration shows a 'right' and 'left' jay's feather, with one side of each stripped off. If you tied in the feather on the right, as before, and wound it up the body, the fibres would all point to

Fig. 46.

the tail, and the blue side of the fibres be on the head end of the fly, as they should be; but if you

did the same with the left hand feather, the fibres would point towards the head end, and the blue side of the fibres to the tail, which is wrong. To prevent this, the ribbing tinsel must be wound the reverse way, or towards, instead of from, you ; then, when the hackle is wound behind it, the fibres will be in their proper position.

Fig. 47.

The illustration shows a guineafowl's feather (of which the right side was stripped off) wound on. The reader will see from the above that if the left side of a hackle is stripped off, the ribbing and hackle must be wound from him, and if the right side is stripped off, the ribbon and hackle must be wound towards him.

Feathers with curved fibres, used as shoulder or throat hackles, are treated in the same way : 'rights' being tied in on the side of the hook nearest you, 'lefts' on the far side.

When stiff and thick-stemmed feathers, such as golden pheasant tippets, are required as throat hackles, it is a good plan to tie a bunch of fibres in under the hook, as shown. They should be spread slightly, and tied on with a couple of turns

Fig. 48.

of tying silk. The nearer these turns of silk are to the last hackle, the more the fibres will stand out from the hook, and the further away they are the flatter will the fibres lie.

Length of fibres and quantity of hackle at the throat.—On the first of these there is a great difference of opinion. Some fishermen prefer very short fibred hackles, others very long. With the first I do not agree at all. The part of a hackle on the hook is to give the appearance of life to a fly by the movement of its fibres in the water. The shorter the fibres the more stiff they appear, and consequently they show less

life. Surely, therefore, the longer they are (in proportion, of course, to the size of the fly) the better will they play. I therefore prefer hackle fibres to reach almost to the barb of the hook.

As to the quantity of hackle at the shoulder, you must bear in mind the following :—*First*, Too much hackle will cause the fly to swim crookedly. *Second*, Some flies have three or more different coloured hackles, therefore you must remember, the more hackles, the fewer coils of each. *Third*, The coarser the fibres, the fewer coils are required. Take jay or guineafowl. Three or four coils as throat hackles are quite sufficient. *Fourth*, For some rivers very little hackle is preferable to a lot, and *vice versa*.

JOINTED BODIES.

There are several varieties of these. We will

Fig. 49.

begin with those which have whole feathers of Indian crow, chatterer, jay, etc., at each joint ;

when so placed they represent hackles. We will suppose that you want to tie a body with three joints; Indian crow to be at the top and bottom of each joint. Tie in the jay and tail, form the first joint, and wind on the ribbing as shown. Now take a 'right' and 'left' feather from the

Fig. 50.

breast of the Indian crow, both exactly the same size; place them back to back, and holding them so between the forefinger and thumb of the left hand, make a dent with the right thumb nail, at right angles to their stems, close up to the fibres; tie these in with two turns of the silk, on top of the hook, as shown. They should be perfectly upright, on top of the hook, and pointing straight along the shank. They should also close, one against the other. Now take the fly out of the

vice, turn it upside down, and place it so in the vice; be careful not to let the tying silk get loose while you turn the fly over. Tie in two more feathers, a 'right' and a 'left,' exactly the same size as the last, in the same way, with two turns of tying silk. Take the hook out of the vice again, and replace it in its original position. Tie in and wind on a herl as butt. The other two joints are now made in the same way; but the feathers must gradually increase in size from the joint nearest the tail to the head end. All the feathers on the top of the hook should be in one straight line, and the same on the under-side of the hook. It is most important in a fly

Fig. 51.

of this kind that rights and lefts should be on their own sides of the hook, with the curves of their stems towards the body; otherwise the tips of the feathers will be at different angles, and the symmetry destroyed.

Again, if in tying the feathers in, the silk does not pass close up to the fibres, the fly would have a very ragged appearance. On the other hand, if any fibres were actually tied in, the mistake would be as great. Flies of this kind appear at first very difficult to the beginner; but really, the great thing needed is patience in matching the feathers. If the dents are made, as described, in the shafts, and the tying silk tightly wound, the position of the feathers can easily be obtained. A variety of the above is shown. The stems cross one another at the side of the hook. This method is sometimes adopted for very small flies, or if the whole body is to be covered with feathers. Each feather is tied separately—rights and lefts on their proper sides; there are four feathers, but only two show—two rights at the top and two lefts below.

Fig. 52.

By turning the pillar of the vice round, four more, *i.e.* two above and two below, can be tied in on the other side of the hook, making altogether eight feathers in the joint. If there were only four feathers at each joint, the appearance of the fly would be thin, and in the water these feathers would make very little show. The remaining joints of the body are formed as before, but the feathers in

each successive joint should be longer than the last.

The next variety is that shown in the illustration. Hackles are tied in and wound on at each

Fig. 53.

joint in the same way as throat hackles. The fibres should be longer in fibre at each successive joint. No butts are needed at the joints with this kind of fly, as the hackles take their place and conceal tying silk, etc.

Fig. 54.

Similar in construction to the last are 'Grubs.' They are wingless flies. There may be hackles of two or three different colours at each joint, but there should not be more than six turns of hackle altogether at any joint, except the head one.

Here there is no need to make allowance for

wings, so the last hackle should be wound on pretty close up to the end of the hook, just leaving room for finishing off. When tying these grubs on hooks larger than 3/0 or 4/0, three joints or four sets of hackles should be tied.

With very small flies there are no joints at all ; but the hackle, body material, and ribbing, are tied in together after the tag (if any) is formed. The body is then formed and the hackle wound on. If very little hackle is required, one side of it can be stripped off. If the hackle is not long enough, another can be added, care being taken to match the length of fibre.

Fig. 55.

CHAPTER VII.

WINGS.

WE now come to the most difficult part of fly-tying. So far, every process described is mere child's-play compared to it, and nothing but continual practice can make the beginner really efficient. The most important points to be attained are as follows :—Both wings must be equal in size, upright, straight with the hook, and quite firm ; every strip or fibre must be on its own side of the hook—none sticking out in the slightest ; they must be arched or curved, and the head as small as possible. Now, with reference to their being arched or curved, it is essential that feathers suited to the size of the hook be used. To illustrate this, cut a strip from a large and from a small mallard feather. Cut off from the large strip a piece equal in length to the strip from the small feather. You will then see that the natural curve in the fibres of the small feather is most distinct, but that in the piece from the large feather the fibres are almost straight. If the strip from the small feather was tied on

properly to a hook of the right size, it would arch naturally; but if you tied the piece cut off the strip from the large feather on to the same sized hook, the fibres could not arch, because they are naturally straight. The above should be borne in mind when you are tying any kind of wing, whether with strips or strands, or whole feathers.

The tying silk should be well waxed before any part of the wings is tied on, and every turn of it should be as tight as possible; otherwise when the fly was finished, you would be able to twist the wings to one side or other of the hook. In attempting to do this you will probably break the silk frequently at first, especially with 'mixed' wings, but don't let this discourage you.

If you are tying a fly on an eyed hook, there should be nothing to the right of the throat hackle except the even close coils of tying silk which were wound on first of all. With a fly tied on a hook with gut loop, there should only be the bare hook to the right of the throat hackle; so, before tying on the wing, wind the tying silk tightly and evenly round the gut and hook, up to the end of the shank, then start back again, still winding as tightly and evenly as possible; by this means the gut at the head of the fly, where the most strength is needed, has two layers of silk over it. Varnish this tying all over. The gut, of course, must be kept perfectly straight under the hook.

Single strip wings.—For this kind of wing you

require a right and a left strip from some feather. Coarse fibred feathers, such as bustard or turkey, are the easiest to tie on : finer ones, such as teal or mallard, the most difficult. The strip from the right side of the feather (supposing you are looking at the best side, hilt towards you) is for the wing nearest to you. So cut off a strip, but leave the quill on, as it helps to keep the fibres from

Fig. 56.

‘breaking.’ To tie it on, place it against the side of the hook, but rather high up, and hold it there with the thumb of the left hand, close down to, but not over, the place where the tying silk will pass, while you wind a turn of the tying silk very carefully, so as to draw all the fibres close together, at the side, and near the top of the hook, as shown. There should not be the slightest scoup, split, or projection of any one fibre, so you must look closely before pulling the silk tight. If there was any ‘break’ in the fibres, the wing

would split in the water. You must be careful, too, to keep the wing on its own side of the hook, or there will not be room for the other wing ; and you must not get it too low on the hook, or it will not arch properly. Two turns of tying silk are sufficient. The wing on the far side of the hook is placed in position, and held there with the forefinger or second finger of the left hand, and tied on like the other. If properly done, the two wings will meet along the top, and when looked at from the tail end of the fly, appear inclined slightly outwards. The length of the wings should be such, that they will nearly reach the point of the tail, or a little longer than the hook.

I said that the strip from the right side of the feather was for the side of the hook nearest you, and for all kinds of wings, except those with single strips, it must always be so ; but with these wings

Fig. 57.

you get just as good a set, and a better appearance, if you place the left strip on the side nearest

you, and the right strip on the far side, as in the illustration (fig. 57); but before tying them on, the fibres must be bent back in the opposite direction to the natural curve; you then get the longest fibres on the top of the hook. The shortest or lower fibres should be about the length of the hook.

The illustration (fig. 58), shows an easy way of drawing all the fibres together, without a break. The silk is waxed, and one end held between the teeth. The quill end of the fibres is put through a loop in the silk; the latter is then pulled tight, carefully. The wing is then placed in position at the side of the hook, and tied on with a couple of turns. I do not recommend this method to those who have time to practise and master the

Fig. 58.

first and more difficult method; of course you must measure the length of the wing against the hook before pulling the silk tight.

Under Wings.—Many flies have what are called underwings. They may be of whole feathers, or of strips. Tippet feathers are frequently used here. Select a 'right' and 'left'; those in which

the stems are curved look best on the hook, as you then get the black tips or bars nearly perpendicular to the hook shank ; but this applies equally to all kinds of feathers when tied in whole. Feathers with straight stems give the fly a very stiff appearance.

They are tied in on top of the hook, both together, in the same way as feathers for a jointed body; they should extend at least to the tag. Two or three turns of silk will be sufficient. If the stems of the feathers are thick, taper them slightly on the underside with a sharp knife. The taper should be a long one. The wings are then tied on at the side as before.

Fig. 59.

If you wanted strands of tippet as underwings, they also would be tied on the top of the hook, the latter being held as in figure 23, in the chapter on tails.

MIXED WINGS.

These are made up of single strands from different feathers. They are, to a beginner, the easiest of all kinds of wings to tie on; but they are at first troublesome to 'make up.' We will suppose that you want to tie on a mixed wing, composed of bustard, golden pheasant tail, mallard, summer duck, dark brown turkey, swandyeed yellow, red, and blue. For the wing nearest you, cut a strip off each feather from the right side. Split these strips up into single strands. Take any strand, place it on its back on the table; then take another strand, place it also on its back alongside, or on, the last; then another, and so on, some being on top, others alongside, until you have formed a strip as shown. Of course you

Fig. 6o.

must try not to place any two fibres of the same kind next to one another. The points should all be of the same length. Never mind about the fibres crossing one another; as long as they are on their backs, and all from the right side of the feather, they will be in their proper position.

Make up two or three more strips in the same way. These two or three strips must now be formed into one broad strip (by the method explained in chapter iv., on tails); but each strip should be placed so that the points of the fibres in it will be a little longer than those of the strip below it, or, in other words, that the fibres on top of the wing will be the longest. If properly done, there will not be a single fibre sticking out; but if there should be one, it must be removed before the wings are tied on. The stiletto will be found very useful when laying down the strands and picking up the strips from the table.

The left wing is now made up in the same way, as nearly as possible of the same size as the right wing. The latter is then picked up, and placed on the left wing (best side of both out-

Fig. 61.

wards) so that they coincide, and form one double wing. The wing must now be tied on *top* of the

hook in the manner described for tails in chapter iv.; the tying silk round the head of the hook having been varnished immediately beforehand.

After you have wound four or five turns of silk, remove the left hand, and pinch the root ends of the fibres on to the top of the hook. Then wind a turn or two more. The wings should then be perfectly upright, and not a single fibre standing out.

These mixed wings generally have two strips (one on each side) from some feather tied on over

Fig. 62.

them, to keep the fibres together in the water. The illustration shows two strips of golden pheasant tail tied on.

BUILT WINGS.

These are made up of strips, or strips and strands, from different feathers. We will take as

an example 'Jock Scott's' wings, the description of which is as follows:—Strips of black turkey with white tips below; strips of grey mallard and bustard, strands of golden pheasant tail, green peacock harl, swan-dyed yellow, red and blue over, strips of mallard on top.

The first to be tied on are the strips of turkey. It is a very common practice to tie these on the top of the hook, as shown in the illustration. I

Fig. 63.

prefer them at the side, because they are then lower on the hook, and consequently more of them will show when the rest of the wing is tied on, as they should do. Besides that, the head of the fly will be smaller. A turn or two of tying silk for each wing will be sufficient. The strips should not be nearly as broad as those for a single-strip wing; neither should there be any break.

Now take a right strip from both a grey mal-

lard and a bustard feather,—a few strands of each,—unite them, as previously described, into one strip. As grey mallard feathers would not be long enough for a fly of this size, some other feather

Fig. 64.

must be substituted ; I have used light turkey. Silver pheasant tail would do.

Place the strip against the side of the hook ; wind a turn of silk ; but, before pulling it tight, press the thumb tightly on to the strips and silk, and don't remove the pressure until the silk is tight ; two turns of silk are sufficient. The left strips are tied on in the same way, the second finger being pressed down on to the silk and strips before the former is pulled tight. The strips should lie flat to the turkey strips without any break. Now mix a few strands of swan, golden pheasant tail, and green peacock's herl (two or three strands of each will be enough) ;

place these also against the side of the hook, and tie them in as before. They should be placed

Fig. 65.

fairly high up, almost on the top of the hook, so that they will not cover the turkey strips.

Finally, on the top of the wings tie in two strips of mallard, as you would for mixed wings.

As with other wings, so with these, no strand or strip should stand out or project; but all should lie flat, and the wings should be perfectly straight on the hook.

Cheeks should be tied in next, by placing them diagonally against the sides of the wings, and pressing them there with the nail. A turn of silk for each side will be sufficient. They must lie flat to the wings.

Topping over.—Select a topping of such a size that it will just reach to the end of the wings.

Make a dent with the thumb nail across, and

at right angles to, the stem, and while doing so, bend the feather up into the position shown. Then, on the under side cut the stem to a good long taper with a knife. Place the feather on

Fig. 66.

the top of the hook, and wind two turns of tying silk over ; but take care that it is straight along the wings, and not pointing to one side.

For the horns, take a right and a left strand from a macaw's tail feather. . An examination

Fig. 67.

will show that there is a broad yellow quill to

each strand. This quill must be flat on the hook. Place the fibre at the side of, and close up to the stem of, the topping, and wind one turn of silk over. Do the same to the other, after making sure they will be of the same length. It will be easier to the beginner if he makes a dent across the quills where the tying silk is to pass.

HEADS.

All the roots of the wing feathers should now be cut off at an angle, so that when bound over with tying silk the head will be tapered and pointed, as shown. To do this, hold the scissors along the hook. When this has been done, varnish the stumps, and wind the tying silk as closely and tightly as possible to the end of the shank ; wind back three or four turns, and finish off in the manner shown in the illustration. The end A of the tying silk is turned towards the bend of the hook, and held against the head, while the side of the loop B is wound over it, three or four times ; A is then pulled tight. Cut off the end closely, varnish the whole head well, and when quite dry, give it another coat.

The beginner will probably find that the head of his fly is twice the size of that shown. This will be because he has used too many turns of silk probably, and has not pulled them tight enough. With practice

Fig. 68.

he will soon learn to remedy this. If the fly is to have a 'herl' head, a strand must be tied in, wound on and fastened off, as if for a butt, after the stumps of the wings have been cut off.

A head of wool should also be formed as for a wool 'butt.'

If the wings have been firmly tied on, you should not be able to twist them over to one side or the other when the head is held between the forefinger and thumb.

GOLDEN PHEASANT TOPPINGS.

These feathers are troublesome to manage when the wings are composed of them. Each one should be exactly on top of the last, and they should increase in length from the lowest one.

Fig. 69.

The best way is to cut the stems underneath to a taper, to dent and bend them in turn, and to tie

on two or three together, taking care that the stems are straight along the hook. If the tapering has been properly done, the stems can be cut straight off across the hook.

PEACOCK HERL WINGS.

Before making up wings composed of these fibres, it is a good plan to strip off the flue on both sides of the quill, for a short distance from the butt end. They are then much more easy to manage.

To strip them, pass each in turn between the thumb nail and forefinger of the right hand gently. Take an equal quantity of rights and lefts. Begin by placing a right along the left forefinger,

Fig. 70.

then on that place a left, keeping the quills flat ; the left should be inclined a little outwards from the 'right.' Proceed in this way until you have

built enough. You should then have a right and left wing in one. Keeping the lefts at a slight angle from, or rather crossing, the rights, facilitates matters; before being tied on, they can be brought back to a parallel position with the rights, by gently squeezing with the fingers. The wing should now be placed on the top of the hook, with the quills quite flat, and tied on with three or four turns of silk. All the herls should lie flat to the wings, and not stick out. The head can then be finished as before.

APPENDIX.

DRESSINGS OF SALMON FLIES.

THE dressings of the following flies have (with a few exceptions) been selected from many others described in the *Fishing Gazette* by Mr. G. M. Kelson, Mr. W. Murdoch, Mr. P. D. Malloch, Mr. D. O'Fee, and Mr. W. Brown. When compiling the list, I had two objects in view. The first was, that it should contain patterns of every style of fly, and the second, that a few dressings could be selected from it which would suit any river.

The beginner will find plenty of variety here. He should commence with the easiest patterns, such as grubs, and flies with plain wings; and gradually work up to the more difficult.

1.—AJAX GRUB. (Mr. Kelson.)

Tag. Silver twist and red silk.

No. 1 hackle. A small coch-y-bonddhu, and two very small jungle, one on either side of the hook, pointing towards the tag, and in line with the shank.

Body. Alternate coils of yellow and black chenille.

No. 2 hackle. A larger coch-y-bonddhu ; jungle as before.

No. 3 hackle. A full-sized coch-y-bonddhu, and a couple of turns of gallina, dyed red, jungle as before.

Head. Black.

2.—BAKER.

Tag. Gold twist and light blue floss.

Butt. Black herl.

Tail. A topping.

Ribbing. Oval gold tinsel.

Body. Three turns of gold floss : then equal portions of dark orange, light blue, and red seal's fur.

Hackle. Red claret, gallina at shoulder, then light blue.

Wings. Two tippet feathers back to back, covered with strips of golden pheasant's tail, bustard, peacock's wing, and strands of red, green, blue, and yellow dyed swan.

Horns. Blue macaw.

Head. Black.

3.—BLACK DOG. (Mr. Malloch.)

Tag. Silver twist and yellow floss.

Tail. A topping and a few fibres of scarlet ibis.

Butt. Black ostrich herl.

Body. Black floss silk, ribbed with gold and silver oval tinsel; orange floss between the two tinsels.

Hackle. Black heron at shoulder only.

Wings. Mixed—bronze peacock herl, silver grey turkey, bustard, pintail, teal, summer duck, mallard, and swan, dyed red, yellow, and blue; topping over.

Cheeks. Jungle cock.

Horns. Blue macaw.

Head. Black.

4.—BLACK JAY. (Mr. Kelson.)

Tag. Silver twist and dark yellow silk.

Tail. A topping.

Butt. Black herl.

Body. Two turns of black floss, remainder black seal's fur.

Ribbed. Silver tinsel, preceded by silver lace on large patterns.

Hackle. Natural black from floss silk.

Throat. Jay.

Wings. Mixed—tippet, scarlet ibis, and gallina, golden pheasant tail, bustard, teal, black cockatoo's tail, and swan dyed green and dark yellow; two strips of mallard above.

Horns. Blue macaw.

Head. Black.

5.—BLUEBELL. (Mr. Kelson.)

Tag. Silver twist and blue silk, same shade as hackle.

Tail. A topping.

Butt. Black herl.

Body. Orange silk first half, and remainder blue, same shade as hackle.

Ribbing. Silver lace and tinsel.

Hackle. Blue macaw from blue silk.

Throat. Yellow macaw.

Wings. Red macaw in strands ; topping over.

Cheeks. Jungle cock.

Horns. Blue macaw.

Head. Black.

6.—BLUE BOYNE. (Mr. Kelson.)

Tag. Silver twist and claret silk.

Tail. A topping.

Butt. Black herl.

Body. Silver twist, in three sections, each butted with black herl. At each joint are chatterer's feathers sideways—two or three on either side near the top and bottom. The feathers gradually increase in length from the first joint towards the head.

Wings. Five toppings.

Head. Black herl.

Hook. No. 7.

7.—BLUE DOCTOR.

Tag. Silver twist and light orange floss.

Tail. Topping and chatterer.

Butt. Scarlet wool.

Body. Light blue floss.

Ribbed. Silver oval.

Hackle. Light blue.

Throat. Gallina.

Wings. Mixed—tippet, golden pheasant tail, bustard, summer duck, yellow, red, and blue dyed swan; two strips of mallard above, topping over.

Horns. Blue macaw.

Head. Scarlet wool.

8.—BUTCHER. (Mr. Kelson.)

Tag. Silver twist and yellow silk.

Tail. A topping, teal and powdered blue macaw.

Butt. Black herl

Body. In four equal divisions, beginning with light red-claret, and continuing with light blue, dark red-claret, and dark blue seal's fur.

Ribbed. Silver tinsel, preceded on large hooks by silver lace.

Hackle. Natural black, from light red-claret seal's fur.

Throat. Yellow hackle, followed by gallina.

Wings. A tippet feather and red breast feather from a golden pheasant, back to back, the latter extending to the length of the wing. Both are well covered on the side with slight strips of teal, golden pheasant tail; gallina, bustard, and peacock's wing, and strands of parrot and swan dyed yellow; two strips of mallard on top.

Horns. Blue macaw.

Cheeks. Chatterer.

Head. Black.

9.—CARRON. (Mr. Brown.)

Body. Orange wool.

Ribbed. Silver tinsel.

Hackle. Black heron down the whole body.

Wings. Mallard.

10.—CLARET JAY. (Mr. Kelson.)

Tag. Silver twist and light yellow floss.

Tail. Topping, scarlet ibis and gallina.

Butt. Black herl.

Body. Two turns, light red-claret silk, remainder claret seal's fur.

Ribbed. Oval silver tinsel.

Hackle. Claret.

Throat. Jay.

Wings. Mixed—teal, tippet, florican, light mottled turkey, parrot, golden pheasant tail, gallina, and dark bustard, swan dyed yellow, yellow-green, light yellow, and claret ; two strips of mallard above.

Sides. Yellow macaw and scarlet ibis in married strips.

Horns. Blue macaw.

Head. Black.

11.—CHILDERS. (Mr. Kelson.)

Tag. Silver twist, and light blue silk.

Tail. Topping, with strands of red macaw, pin-tail, and powdered blue macaw.

Butt. Black herl.

Body. Two turns of light yellow silk, continuing with light yellow seal's fur, leaving one-fifth at the shoulder for scarlet seal's fur.

Ribbed. Silver lace and tinsel.

Hackle. A white furnace dyed light yellow.

Throat. A scarlet hackle and light widgeon.

Wings. Mixed—golden pheasant tippet and tail, turkey, silver pheasant, pintail, summer duck, bustard, powdered blue macaw, parrot, red macaw, and gallina ; two strips of mallard above and a topping.

Horns. Blue macaw.

Cheeks. Chatterer.

Head. Black.

12.—DUNKELD.

Tag. Silver twist and orange floss.

Tail. Topping and jungle cock.

Butt. Black herl.

Body. Gold tinsel, ribbed at each turn with silver twist.

Hackle. Golden olive, jay at shoulder.

Wings. Mixed—tippet, ibis, bustard, peacock wing, and mallard ; two toppings over.

Horns. Blue macaw.

Head. Black.

13.—DUNT. (Mr. Murdoch.)

Tag. Silver twist and light blue floss.

Tail. A topping and pintail.

Body. Orange shaded into fiery brown mohair.

Ribbed. Gold twist and silver tinsel.

Hackle. From centre of body long black heron.

Throat. Teal.

Wings. Two strips of dark brown turkey, with black bar and white tips ; to extend flatwise outward from the top of the hook, at about an angle of twenty degrees ; on top, between the wings, a narrow strip of pintail.

Cheeks. Jungle.

Head. Black.

14.—DURHAM RANGER. (Mr. Kelson.)

Tag. Silver twist and light yellow floss.

Tail. A topping and Indian crow, flat.

Butt. Black herl.

Body. Two turns of orange silk, two turns of dark orange seal's fur; the rest, about half, black seal's fur.

Ribbed. Silver lace and tinsel.

Hackle. From orange fur, a white coch-y-bonddhu dyed orange.

Throat. Light blue hackle.

Wings. Four golden pheasant tippets, back to back, two on each side, enveloping two projecting jungle cock back to back; topping over.

Cheeks. Chatterer.

Horns. Blue macaw.

Head. Black.

15.—DUSTY MILLER. (Mr. Murdoch.)

Tag. Silver twist and yellow floss.

Tail. Topping.

Butt. Black herl.

Body. Embossed silver tinsel.

Ribbed. Silver oval.

Hackle. Gallina; only at shoulder in small patterns.

Wings. Mixed—white tipped turkey, golden pheasant tail, pintail, bustard, summer duck, swan dyed yellow, red, and blue ; topping over.

Cheeks. Jungle cock.

Head. Black.

16.—EVENING STAR. (Mr. Kelson.)

Tag. Silver twist and tippet coloured silk.

Tail. Topping.

Butt. Black herl.

Body. In four equal sections : the first three of silver tinsel, each having two jungle cock back to back above and below, and butted with black herl ; the last division of blue floss, the only one ribbed with silver tinsel, oval.

Throat. Jungle as before. These feathers slightly increase in length from the opposite end of the body.

Wings. Four Amherst pheasant tippets, back to back ; topping over.

Cheeks. The tip of a summer duck feather, and an Indian crow feather on each side, the former in advance.

Horns. Red macaw.

Head. Black herl.

17.—FIERY BROWN. (Mr. Kelson.)

Tag. Gold twist and light orange floss.

Tail. A topping.

Butt. Black herl.

Body. Fiery brown seal's fur.

Ribbed. Oval gold tinsel.

Hackle. From first turn of tinsel, fiery brown.

Wings. Tippet strands, between broad strips of mallard.

Horns. Blue macaw.

Head. Black.

18.—GITANA. (Mr. Kelson.)

Tag. Silver twist and red floss, same shade as Indian crow.

Tail. Two toppings; a jungle and chatterer on each side.

Butt. Black herl.

Body. One-third silver tinsel, butted with black herl, and having four Indian crow, two at top and two at bottom, back to back; the remainder black floss.

Hackle. Black from the floss.

Ribbed. Silver tinsel and gold lace.

Throat. Green macaw.

Wings. Two dark blue macaw feathers, a jungle on either side extending beyond the tag, and five tippet feathers on either side, the longest reaching to the butt ; three or four toppings over.

Cheeks. Enamelled thrush.

Head. Black herl.

19.—GLOW-WORM (GRUB). (Mr. Kelson.)

Tag. Gold twist.

Tail. Scarlet ibis.

No. 1 hackle. A small coch-y-bonddhu.

Body. Copper-coloured tinselled chenille.

No. 2 hackle. A larger coch-y-bonddhu.

No. 3 hackle. A full-sized coch-y-bonddhu.

20.—GORDON. (Mr. Murdoch.)

Tag. Silver twist, and medium orange floss.

Tail. A topping and Indian crow, flat.

Butt. Black herl.

Body. Four turns medium orange floss, remainder medium claret floss.

Ribbed. Silver tinsel and twist.

Hackle. Claret to match body.

Throat. Greenish blue hackle.

Wings. Two tippets back to back, reaching to the butt, with red spear feather between and projecting beyond them. These are covered

on the sides with strips of bustard, golden pheasant tail, peacock wing, mallard, and strands of swan dyed blue, red, and yellow, and peacock herl ; topping over.

Cheeks. Jungle cock.

Horns. Blue macaw.

Head. Black.

21.—GREY EAGLE. (Mr. Murdoch.)

Tag. Silver twist.

Tail. Golden pheasant rump feather.

Body. Black mohair well picked out.

Ribbed. Broad silver tinsel.

Hackle. Grey eagle.

Throat. Teal.

Wings. Brown mottled turkey strips.

Head. Black.

22.—GREY HERON. (Mr. Murdoch.)

Tag. Gold tinsel.

Tail. Topping and small tippet feather.

Body. Orange fur well picked out.

Ribbed. Gold tinsel.

Hackle. Grey heron.

Throat. Teal.

Wings. Brown mottled turkey strips.

Head. Black.

23.—JOCK SCOTT. (Mr. Kelson.)

Tag. Silver twist and light yellow floss.

Tail. A topping and Indian crow.

Butt. Black herl.

Body. In two equal sections: the first, light yellow floss, ribbed with fine silver tinsel; above and below are placed three or more toucan, according to size of hook, extending slightly beyond the butt, and followed by three or more turns of black herl; the second half black silk, with a natural black hackle down it, and ribbed with silver lace and silver tinsel.

Throat. Gallina.

Wings. Two strips of black turkey, with white tips below; two strips of bustard and grey mallard, with strands of golden pheasant tail, peacock sword feather, red macaw, and blue and yellow dyed swan over, with two strips of mallard, and a topping above.

Sides. Jungle cock.

Cheeks. Chatterer.

Horns. Blue macaw.

Head. Black.

24.—JUDGE. (Mr. O'Fee.)

Tag. Gold twist and orange floss.

Tail. Topping and two chatterer.

Butt. Green peacock herl.

Body. Silver tinsel ribbed with gold lace.

Hackle. Rich golden olive.

Throat. Bright fiery brown, then jay.

Wings. Strips of bustard, and swan dyed deep yellow, strands of tippet, powdered blue macaw, green and red parrot; two toppings over.

Cheeks. Chatterer.

Horns. Blue macaw.

Head. Peacock herl.

25.—KNEECAP. (Mr. Kelson.)

Tag. Gold twist and light blue floss.

Tail. Tippet, florican, teal, scarlet ibis, yellow macaw, and powdered blue macaw.

Butt. Black herl.

Body. Two turns bright red-claret seal's fur, remainder dirty orange seal's fur.

Ribbed. Gold tinsel.

Hackle. Kneecap, from orange fur.

Wings. Dark mottled turkey, pintail, golden pheasant tail, peacock, powdered blue macaw, black cockatoo's tail, and parrot, all in strands; two strips black turkey with white tips, over.

Horns. Blue macaw.

Head. Black.

26.—LADY CAROLINE. (Mr. Brown.)

Tail. Strands of red feather from golden pheasant.

Body. Reddish brown wool.

Ribbed. Silver tinsel, between gold and silver twist.

Hackle. Long grey heron down the whole body.

Throat. Red hackle from golden pheasant.

Wings. Mallard.

27.—LEMON GREY.

Tag. Silver twist and yellow floss.

Tail. Topping.

Body. Grey monkey fur.

Ribbed. Silver tinsel.

Hackle. Green olive.

Throat. Yellow hackle.

Wings. Mallard, tippet, golden pheasant tail, bustard, gallina, and green parrot.

Horns. Blue macaw.

Head. Black.

28.—MACINTYRE. (Mr. Murdoch.)

Tag. Silver twist and light yellow floss.

Tail. Topping and Indian crow, flat.

Butt. Black herl.

Body. Three turns light orange floss, three turns scarlet seal's fur, remainder blue fur, picked out.

Ribbed. Broad silver tinsel and silver lace.

Hackle. Magenta from scarlet fur.

Throat. Greenish-blue hackle, and then long black heron.

Wings. Under, two tippets back to back, extending to butt, two long jungle cock over them; at the sides, strips of bustard, golden pheasant tail, peacock's wing, swan dyed red, green, and blue; two strips of mallard above; two toppings over.

Cheeks. Light chatterer.

Horns. Blue, red, and yellow macaw.

Head. Black.

29.—PARSON.

Tag. Silver twist.

Tail. Topping and chatterers sideways.

Body. Three turns gold floss, three turns gold seal's fur, remainder orange seal's fur.

Ribbed. Silver twist.

Hackle. Golden olive.

Throat. Orange hackle, then jay.

Wings. Toppings.

Cheeks. Chatterer.

Horns. Blue macaw.

Head. Black.

30.—PENPERGWM PET. (Mr. Kelson.)

Tag. Silver twist and bright yellow seal's fur.

Tail. Indian crow, summer duck, and scarlet ibis.

Butt. Black herl.

Body. Bright yellow, crimson-magenta, mouse, and rich plum-claret seal's fur, in equal sections.

Ribbed. Silver tinsel.

Hackle. A coch-y-bonddhu dyed in Bismarck brown from yellow seal's fur.

Wings. Double white turkey, ginger speckled turkey, bustard, black cockatoo's tail, red macaw, powdered blue macaw, parrot, and teal, all in strands, two strips brown turkey, with black bar and white tip over.

Cheeks. Chatterer.

Head. Black.

31.—POPHAM. (Mr. Kelson.)

Tag. Gold twist.

Tail. Topping and Indian crow, flat.

Butt. Black herl.

Body. In three equal sections, butted with black herl: the first dark red-orange silk, ribbed with fine oval gold tinsel, having Indian crow flat, above and below; the second joint, yellow silk, with similar ribbing and Indian crow; the third, light blue silk, with silver ribbing and Indian crow.

Hackle. At throat only, jay.

Wings. Tippet, teal, gallina, golden pheasant tail, parrot, light brown mottled turkey, bustard, red macaw, yellow macaw (or swan dyed yellow for large hooks); two strips of mallard above and a topping.

Cheeks. Chatterer.

Horns. Blue macaw.

Head. Black.

32.—POYNDER OR CAPTAIN. (Mr. Kelson.)

Tag. Silver twist and light blue floss.

Tail. Topping, and two chatterers sideways.

Body. Two turns light orange floss, two turns dark orange seal's fur, two turns dark red-claret seal's fur, remainder dark blue seal's fur.

Ribbed. Oval silver tinsel.

Hackle. A white coch-y-bonddhu dyed light red-claret from the orange silk.

Throat. Blue hackle and gallina.

Wings. Pintail, teal, gallina, peacock wing, Amherst pheasant, bustard, and golden pheasant tail, swan dyed light orange, dark orange, dark claret, and dark blue; two strips of mallard above and a topping.

Sides. Jungle cock.

Cheeks. Chatterer.

Horns. Blue macaw.

Head. Black.

33.—PURPLE KING. (Mr. Brown.)

Body. Light purple wool, ribbed by flat silver tinsel, and two strands of twist, one gold, the other silver.

Hackle. Brownish black feather from side of cock's tail, wound in the opposite direction to the tinsels, and crossed by one of them.

Throat. Teal.

Wing. Double strips of mallard, short, and apart to allow hackle to appear between them.

N.B.—The hackle fibres are reversed, and the butt end tied in first at tail end.

34.—RED PIRATE. (Mr. Kelson.)

Tag. Silver twist and blue floss.

Tail. Topping.

Butt. Black herl.

Body. Silver twist, in three sections, each butted with black herl. At each joint are Indian crow's feathers, sideways, two or three on either side near the top and bottom; the feathers gradually increase in size from the first joint towards the head.

Wings. Five toppings.

Horns. Amherst pheasant.

Head. Black herl.

Hook. No. 7.

35.—SILVER GREY. (Mr. Kelson.)

Tag. Silver twist and yellow silk.

Tail. Topping and unbarred summer duck.

Butt. Black herl.

Body. Silver tinsel.

Ribbed. Oval silver tinsel.

Hackle. A silver furnace, down body.

Throat. Widgeon.

Wings. Mixed—golden pheasant tippet and tail, bustard, mallard, grey mallard, swan dyed yellow and blue ; two strips of mallard and a topping over.

Sides. Jungle cock.

Horns. Blue macaw.

Head. Black.

36.—SILVER DOCTOR. (Mr. Malloch.)

Tag. Silver twist and golden yellow floss.

Tail. A topping and chatterers sideways.

Butt. Scarlet wool.

Body. Silver tinsel.

Ribbed. Oval silver tinsel.

Hackle. Blue.

Throat. Gallina.

Wings. Mixed—golden pheasant tippet and tail, silver grey turkey, bustard, summer duck, and swan dyed yellow, red, and blue ; topping over.

Horns. Blue macaw.

Head. Scarlet wool.

37.—SPRING GRUB. (Mr. Kelson.)

Tag. Silver twist and light blue floss.

Tail. Scarlet ibis and blue macaw in married strips.

Body. In two sections, having three hackles ; at the tail, a furnace hackle dyed orange ; first half of body yellow silk ribbed with black chenille ; in the centre a natural blue hackle ; second half of body black silk ribbed with silver tinsel ; head hackles, a natural coch-y-bond-dhu ; and last, a gallina dyed dark orange.

38.—THUNDER AND LIGHTNING. (Mr. Kelson.)

Tag. Gold twist and yellow floss.

Tail. A topping.

Butt. Black herl.

Body. Black silk.

Ribbed. Oval gold tinsel.

Hackle. Orange from first turn of tinsel.

Throat. Jay.

Wings. Mallard ; topping over.

Sides. Jungle cock.

Horns. Blue macaw.

Head. Black.

39.—TIPPET GRUB. (Mr. Kelson.)

Tag. Silver twist and scarlet fur.

No. 1 hackle. Two turns of small tippet feather, and two turns natural black hackle ; butted with two turns of silver twist.

Body. Light green oline chenille.

No. 2 hackle. Same as No. 1, but slightly larger.

No. 3 hackle. Same as before, but larger still.

Head. Silver twist.

40.—YELLOW CATERPILLAR.

Tag. Silver twist.

Body. Yellow and dirty orange seal's fur mixed.

Ribbed. Oval silver tinsel.

Hackle. Down the whole body a blue dun hackle,
with another of same kind at the head.

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