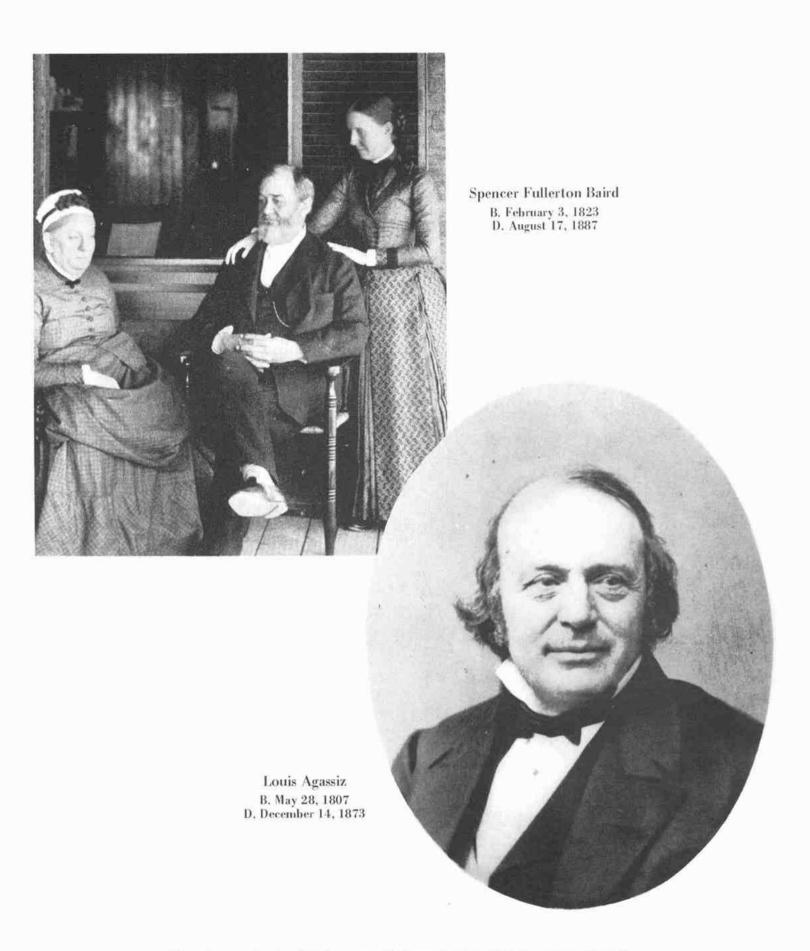
# The American Fly Fisher





These two great naturalists began our first movements toward the conservation of our salt and fresh water fishes. Baird became our first U. S. Fish Commissioner in 1871. During his lifetime, he published 1,076 articles pertaining to his experiments and observations.

# The American Fly Fisher

Published by The Museum of American Fly Fishing for the pleasure of the membership.

SUMMER 1977 Vol. 4 No. 3

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# Man Who Walks by Moonlight

We had been joined on the River by friends, "Doug," who never fished more than forty rods from camp, and was always inventing water-gauges, patent indicators, and other things, and who wore in his soft slouch hat so many brilliant trout flies that he irresistibly reminded you of flower-decked Ophelia; "Dinnis," who was large and goodnatured and bubbling and popular; Johnny, whose wide eyes looked for the first time on the woods life, and whose awe-struck soul concealed itself behind assumptions; "Jim," six feet tall and three feet broad, with whom the season before I had penetrated to Hudson Bay; and finally "Doc," tall, granite, experienced, the best fisherman that ever hit the River. With these were Indians. Buckshot, a little Indian with a good knowledge of English; Johnnie Challan, a halfbreed Indian, ugly, furtive, an efficient man about camp; and Tawabinisay himself. This was an honor due to the presence of Doc. Tawabinisay approved of Doc. That was all there was to say about it.

After a few days, inevitably the question of Kawagama came up. Billy, Johnnie Challan, and Buckshot squatted in a semicircle, and drew diagrams in the soft dirt with a stick. Tawabinisay sat on a log and overlooked the proceedings. Finally he spoke.

"Tawabinisay" (they always gave him his full title; we called him Tawab) "tell me lake you find he no Kawagama," translated Buckshot. "He called Black Beaver Lake."

"Ask him if he'll take us to Kawagama," I requested.

Tawabinisay looked very doubtful.

"Come on, Tawab," urged Doc, nodding at him vigorously. "Don't be a clam. We won't take anybody else up there."

The Indian probably did not comprehend the words, but he liked Doc.

"A'-right," he pronounced laboriously.

Buckshot explained to us his plans.

"Tawabinisay tell me," said he, "he don' been to Kawagama seven year. To-morrow he go blaze trail. Nex' day we go."

"How would it be if one or two of us went with him tomorrow to see how he does it?" asked Jim.

Buckshot looked at us strangely.

"I don't want to follow him," he replied with a significant simplicity. "He run like a deer."

"Buckshot," said I, pursuing the inevitable linguistics, "what does Kawagama mean?"

Buckshot thought for quite two minutes. Then he drew a semicircle.

"W'at you call dat?" he asked.

"Crescent, like moon? half-circle? horseshoe? bow?" we proposed.

Buckshot shook his head at each suggestion. He made a wriggling mark, then a wide sweep, then a loop.

"All dose," said he, "w'at you call him?"

"Curve!" we cried.

"Ah had," assented Buckshot, satisfied.

"Buckshot," we went on, "what does Tawabinisay mean?"

"Man-who-travels-by-moonlight," he replied, promptly.

The following morning Tawabinisay departed, carrying a lunch and a hand-axe. At four o'clock he was back, sitting on a log and smoking a pipe. In the mean time we had made up our party.

Tawabinisay himself had decided that the two half-breeds must stay at home. He wished to share his secret only with his own tribesmen. The fiat grieved Billy, for behold he had already put in much time on this very search, and naturally desired to be in at the finish. Dick, too, wanted to go, but him we decided too young and light for a fast march. Dinnis had to leave the River in a day or so; Johnnie was a little doubtful as to the tramp, although he concealed his doubt — at least to his own satisfaction — under a variety of excuses. Jim and Doc would

go, of course. There remained Doug.

We found that individual erecting a rack of many projecting arms – like a Greek warrior's trophy – at the precise spot where the first rays of the morning sun would strike it. On the projecting arms he purposed hanging his wet clothes.

"Doug," said we, "do you want to go to Kawagama to-mor-

row?"

Doug turned on us a sardonic eye. He made no direct answer, but told the following story:—

"Once upon a time Judge Carter was riding through a rural district in Virginia. He stopped at a negro's cabin to get his direction.

" 'Uncle,' said he, 'can you direct me to Colonel Thompson's?'

"'Yes sah,' replied the negro; 'yo' goes down this yah road 'bout two mile till yo' comes to an ol' ailm tree, and then yo' tu'ns sha'p to th' right down a lane fo' 'bout a qua'ter of a mile. Thah you sees a big white house. Yo' wants to go through th' ya'd, to a paf that takes you a spell to a gate. Yo' follows that road to th' lef' till yo' comes to three roads goin' up a hill; and, jedge, it don' mattab which one of them thah roads yo' take, yo' gets lost surer'n hell anyway!""

Then Doug turned placidly back to the construction of his trophy.

We interpreted this as an answer, and made up an outfit for five.

The following morning at six o'clock we were under way. Johnnie Challan ferried us across the river in two installments. We waved our hands and plunged through the brush screen.

Thenceforth it was walk half an hour, rest five minutes, with almost the regularity of clockwork. We timed the Indians secretly, and found they varied by hardly a minute from absolute fidelity to this schedule. We had at first, of course, to gain the higher level of the hills, but Tawabinisay had the day before picked out a route that mounted as easily as the country would allow, and through a hardwood forest free of underbrush. Briefly indicated, our way led first through the big trees and up the hills, then behind a great cliff knob into a creek valley, through a quarter-mile of bottom-land thicket, then by an open strip to the first little lake. This we ferried by means of the bark canoe carried on the shoulders of Tawabinisay.

In the course of the morning we thus passed four lakes. Throughout the entire distance to Kawagama were the fresh axe-blazes the Indian had made the day before. These were neither so frequent nor as plainly cut as a white man's trail, but each represented a pause long enough for the clip of an axe. In addition the trail had been made passable for a canoe. That meant the cutting out of overhanging branches wherever they might catch the bow of the craft. In the thicket a little road had been cleared, and the brush had been piled on either side. To an unaccustomed eye it seemed the work of two days at least. Yet Tawabinisay had picked out his route, cleared and marked it thus, skirted the shores of the lakes we were able to traverse in the canoe, and had returned to the River in less time than we consumed in merely reaching the Lake itself! Truly, as Buckshot said, he must have "run like a deer."

Tawabinisay has a delightful grin which he displays when pleased or good-humored or puzzled or interested or comprehending, just as a dog sneezes and wrinkles up his nose in like case. He is essentially kind-hearted. If he likes you and approves of you, he tries to teach you, to help you, to show you things. But he never offers to do any part of your work, and on the march he never looks back to see if you are keeping up. You can shout at him until you are black in the face, but never will he pause until rest time. Then he squats on his heels, lights his pipe, and grins.

Buckshot adored him. This opportunity of traveling with him

was an epoch. He drank in eagerly the brief remarks of his "old man," and detailed them to us with solemnity, prefaced always by his "Tawabinisay tell me." Buckshot is of the better class of Indian himself, but occasionally he is puzzled by the woodsnoises. Tawabinisay never. As we cooked lunch, we heard the sound of steady footsteps in the forest -pat; then a pause; then pat; just like a deer browsing. To make sure I inquired of Buckshot.

"What is it?"

Buckshot listened a moment.

"Deer," said he, decisively; then, not because he doubted his own judgment, but from habitual deference, he turned to where Tawabinisay was frying things.

"Qwaw?" he inquired.

Tawabinisay never even looked up.

"Adji-domo" (squirrel), said he.

We looked at each other incredulously. It sounded like a deer. It did not sound in the least like a squirrel. An experienced Indian had pronounced it a deer. Nevertheless it was a squirrel.

We approached Kawagama by way of a gradual slope clothed with a beautiful beech and maple forest whose trees were the tallest of those species I have ever seen. Ten minutes brought us to the shore. There was no abrupt bursting in on Kawagama through screens of leaves; we entered leisurely to her presence by way of an antechamber whose spaciousness permitted no vulgar surprises. After a time we launched the canoe from a natural dock afforded by a cedar root, and so stood ready to cross to our permanent camp. But first we drew our knives and erased from a giant birch the half-grown-over name of the banker Clement.

There seems to me little use in telling you that Kawagama is about four miles long by a mile wide, is shaped like a crescent, and lies in a valley surrounded by high hills; nor that its water is so transparent that the bottom is visible until it fades into the sheer blackness of depth; nor that it is alive with trout; nor that its silence is the silence of a vast solitude, so that always, even at daybreak or at high midday, it seems to be late afternoon. That would convey little to you. I will inform you quite simply that Kawagama is a very beautiful specimen of the wilderness lake; that it is as the Lord made it; and that we had a good time.

Did you ever fish with the fly from a birch-bark canoe on absolutely still water? You do not seem to move. But far below you, gliding, silent, ghostlike, the bottom slips beneath. Like a weather-vane in an imperceptible current of air your bow turns to right or left in apparent obedience to the mere will of your companion. And the flies drop softly like down. Then the silence becomes sacred. You whisper, — although there is no reason for your whispering; you move cautiously lest your reel scrape the gunwale. An inadvertent click of the paddle is a profanation. The only creatures in all God's world possessing the right to utter aloud a single syllable are the loon, far away, and the winter wren, near at hand. Even the trout fight grimly, without noise, their white bodies flashing far down in the dimness.

Hour after hour we stole here and there like conspirators. Where showed the circles of a fish's rise, thither crept we to drop a fly on their center as in the bull's-eye of a target. The trout seemed to linger near their latest capture, so often we would catch one exactly where we had seen him break water some little time before. In this was the charm of the still hunt. Shoal water, deep water, it seemed all the same to our fortunes. The lake was full of fish, and beautiful fish they were, with deep glowing bronze bellies, and all of from a pound to a pound and a half in weight. The lake had not been fished. Probably somewhere in those black depths over one of the bubbling spring-holes that must feed so cold and clear a body of water, are big fellows lying, and probably the crafty minnow or spoon might lure them out. But we were satisfied with our game.

At other times we paddled here and there in exploration of coves, inlets, and a tiny little brook that flowed westward from a reed marsh to join another river running parallel to our own.

The Indians had erected a huge lean-to of birch bark, from the ribs of which hung clothes and the little bags of food. The cooking-fire was made in front of it between two giant birchtrees. At evening the light and heat reflected strongly beneath the shelter, leaving the forest in impenetrable darkness. To the very edge of mystery crowded the strange woods-noises, the eerie influences of the night, like wolves afraid of the blaze. We felt them hovering, vague, huge, dreadful, just outside the circle of safety our fire had traced about us. The cheerful flames were dancing familiars who cherished for us the home feeling in the middle of a wilderness.

Two days we lingered, then took the back track. A little after noon we arrived at the camp, empty save for Johnnie Challan. Towards dark the fishermen straggled in. Time had been paid them in familiar coinage. They had demanded only accustomed toll of the days, but we had returned laden with strange and glittering memories.

> Stewart Edward White The Forest 1903



" Nor need you hope to pole a canoe upstream as do these people "

# Angling in Japan

by Joseph Spear Beck

Good friends are about to leave for the Orient. Knowing that we were there last fall for a month and a half, and therefore experts on all phases of Oriental life and custom, I have been asked for advice on angling in Japan. I want to share it with my Anglers' Club friends.

When you arrive in Tokyo after the sixteen hour flight via Anchorage, Alaska, you are met at the airport by friendly people with stretchers and carried to your hotel. If you are hardy

you emerge in three days.

Since there are very few trout in Tokyo and even fewer salmon, you decide to do your sightseeing first at a tackle store. So, at lunch that day, you ask the waiter for directions. He smiles and says nothing. You ask for a menu. He bows gravely, turns around and walks over to the wall and closes the draperies. Then your wife says, "Are you having a communication problem, dear?"

Eventually you find the tackle store. At first it is a disappointment because it seems to be quite ordinary. You have read how the great basso, Chaliapin, became so enchanted with the fine bamboo workmanship of Japanese artisans, that he gave up deep sea angling and concentrated on Japanese fresh water rods, reels and flies. But you look around and see nothing unusual. Most everything is machine made. Then you spy some floats, all beautifully handcrafted and painted. Surprised, you note the difference in the flies. Japan exports a huge quantity of flies to the United States. These are bright and colorful and some are on display. The Japanese though use very sombre colors themselves, for both wet and dry flies. Their wet flies, supposed to look like ephemera, appear more like vegetable matter clinging to a hook, with a few loose strings attached at the eye.

As you turn to leave you sight a beautiful bamboo rod equipped only with ferrules, no guides, resting in a magnificent handdecorated box. The bamboo is in five perfectly graduated sections. There is a solid gold band above the grip. It is a work of art. Quite reasonably priced, too, only one million Yen! You di-

vide by 300, gulp and walk out.

Since you are laying the foundations for your angling trip, you next call on Japanese friends. After tea with cakes, served by cute Japanese girls, there will be a pause in the conversation and your host will say, "Is there anything we can help you with, your shopping, etc.?" In our case, we really couldn't think of anything and then light dawned. I said, "Why yes, Mark Zollar and I are looking for the edition of Izaak Walton printed and illustrated by the Japanese." Our host replied: "I don't know Mr. Walton." Late that night we were wakened by the telephone. It was our host. He said: "My father would like to give you Mr. Walton if we can find him." Floored, of course, I said: "Thank you, no." Thus you too will probably be introduced to the ever generosity of the Japanese.

You have a little tackle with you now and you board the bus with rising hopes because you know you are heading for the mountain country with a one-night stop-over at Miyanoshita. Winding upwards you parallel the tumbling Hayakawa River obviously filled with fine trout. You ask the guide and she says "Si."

Checking in at the desk you smile and then make the sign of a fish, point at your clothes indicating that you want waders, and also tap the bamboo plant standing by the counter. Smiles, and a young gorgeous thing beckons you to follow. She leads you into a small room. Then she points at your clothes and you get the idea right away that you are to wade wet. Ready for anything, you follow her down the hall and into a large room containing a pool. To your surprise there are no trout. You shed your Anglers' Club jacket and step down into the pool. Your little Japanese friend smiles, points at the wall and departs. Sure enough, there on the wall is the fish and out of his mouth comes pouring a jet stream of hot water into the pool.

As you are still cooling off the next day, you pick up a little volume in the library and learn that 'way back in 720 A. D. "Zingu Kogo or Empress Zingu (170-269) bent a needle and made it into a hook. She took grains of rice and used them as bait. Pulling out the threads of her garment, she made them into a line. Then she stood on a stone in the middle of the river and cast the hook . . . pulling up her rod, she caught a trout." They evidently hadn't heard about cheese in those days.

You read on, "During the Heian Period (794-1185) angling flourished among the nobles. It was the custom to divert a neighboring stream into a large pool on the estate. An angling pavilion or "Turidono" was built alongside the pool. Here the nobles sat in leisure and cast." Something like Alft's only not

quite so posh.

By 1820 Japanese craftsmen were turning out jointed rods, only a foot long, inlaid with gold; gold lacquered creels of wood, some with mother-of-pearl; and other articles, all of exquisite workmanship. This Lilliputian tackle was so delicate, that even human hair was used, in catching a pygmy fresh water fish called 'tanago,' the average length of which is only 1½". The tip of the rod was so fine for this branch of angling that they say it gave one the same feeling as catching a larger fish on heavier tackle. (Shall we take this with a grain of salt?) This taste for extremely light tackle is still a characteristic of the Japanese. According to the Japanese, the mere weight of the fish caught isn't the index of skill, but rather the quality of the tackle. Americans, as we know, are adopting this philosophy more and more with lighter and lighter tackle.

By this time your friends are calling that it is time to leave for Nikko and the Daiya River which has a reputation for brook trout. North of Nikko are said to be salmon streams and you have heard of the big salmon on the North Island of Hokkaido. As you get out of the bus at Nikko you find yourself in front of a temple. Just when you think you are in the right salmon line and your turn is coming up, you find yourself inside another temple. There are men over there still, who haven't yet found the stream, and are wandering like lost souls from temple door to temple door.

Somewhat disillusioned, you get out of this maelstrom and head back for your hotel, carrying with you an ivory fisherman purchased at the local antique shop. You question the guide about the lack of fishing and she replies, "No, No, Trout in April, Tourist in October."

Now it is time to say farewell and as you board the plane for Singapore, your Japanese guide bows and says: "I hope you will always be in pink health."



Steamboat Rock, Wisconsin River

#### CORRECTION

Sometimes the inside joke gets outside and just might be taken seriously. Reference is made to Joseph Spear Beck's article, The Fun of Angling Literature which appeared in our issue of Spring, 1977 and was reprinted from a publication of the Anglers' Club of Chicago. In the hustle and bustle of getting out the magazine, I omitted the introduction which would have pointed out that some of the books and titles were fictitious and the Beck way of having fun with his fellow club members. Joe has reminded me of my error, quite rightly, with a repeat of a portion of his original letter as follows:

"In writing this article for the Anglers' Club, thought I'd have a little fun with the members and pull a few legs. Ray Donnersberger, Paul Schreiber, Charlie Hemenway, Graydon Ellis, Jack Buesch, Allan Johnson and John McCoy are all fellow members. None of them has ever written a book but they are all expert anglers. The dates shown for each are the dates they won

angling trophies, as for instance, Donnersberger won the Greater Miami Tarpon Championship in 1963, 1964 and 1968 and then landed a trophy steelhead on the Dean River in 1966.

"Paul Schreiber fishes almost exclusively with an Adams. Allan Johnson holds the National Casting Championship. John McCoy is a leftie. Charlie Hemenway is our oldest member. Jack Buesch conducts our fly-tying class and is a perfectionist. One day he came in for lunch, after a successful salmon trip to the Miramichi, tossed a fly on the table and said, "There's the answer. Cut off the tail.' We all have fun!"

That the fly fishers named didn't write the books credited to them is a little tragic as undoubtedly they could present us with some mighty fine reading. My apologies to Joe and our readers. Even with my red face, I must admit Joe did a clever and entertaining bit of writing.

Austin S. Hogan



# CATALOGUES

On the following pages are excerpts from catalogues of the most prestigious tackle houses in England and America. The pages speak for themselves and illustrate approximately twenty years of tackle development.

The wet flies and the salmon flies, reproduced in color, are the prototypes of those used in America. The large, heavy winged lake flies of Allcock are the same in general form as those used in America for black bass. The British called them lake flies and this appellation was also used for larger trout flies designed in America.

It might be noted that Abbey & Imbrie offered a choice of dowelled ferrules and what we now call "suction" types. In general, there was little difference in tackle manufactured in the United States and Great Britain during this period in our history.

# ILLUSTRATED CATALOGUE

OF

# FINE FISHING TACKLE

MANUFACTURED BY

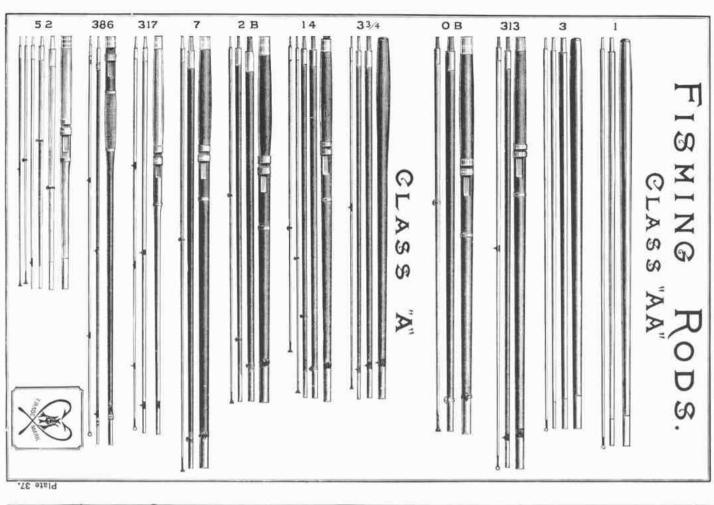
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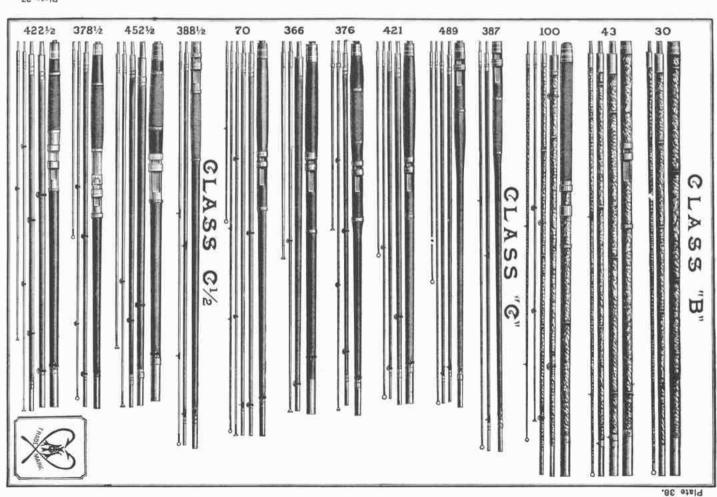
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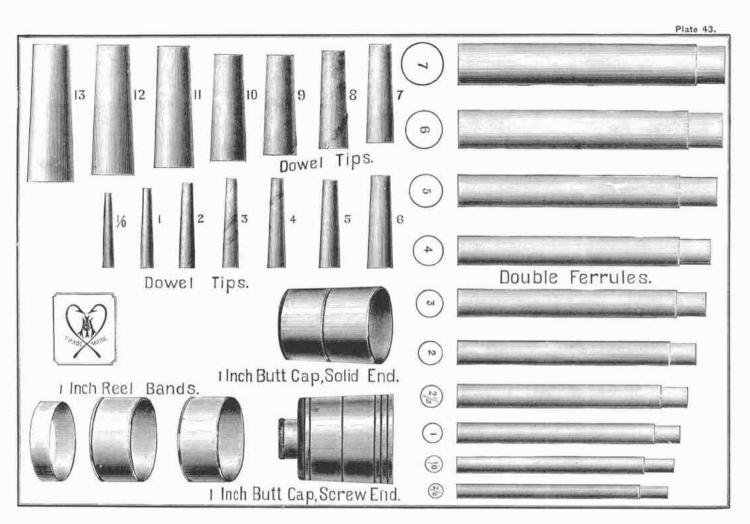
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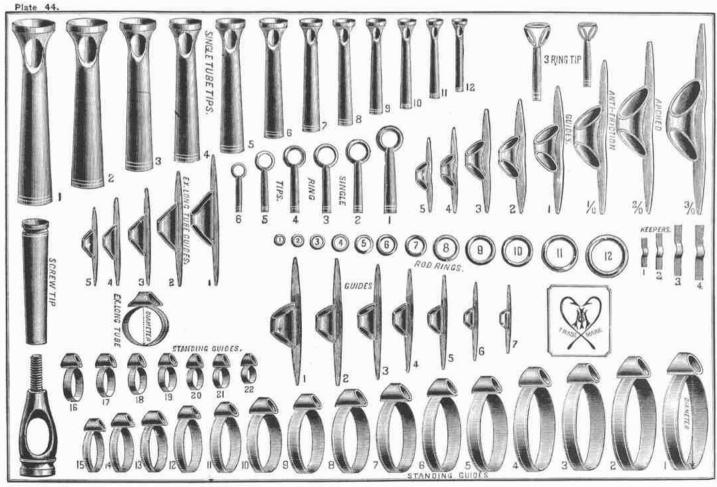
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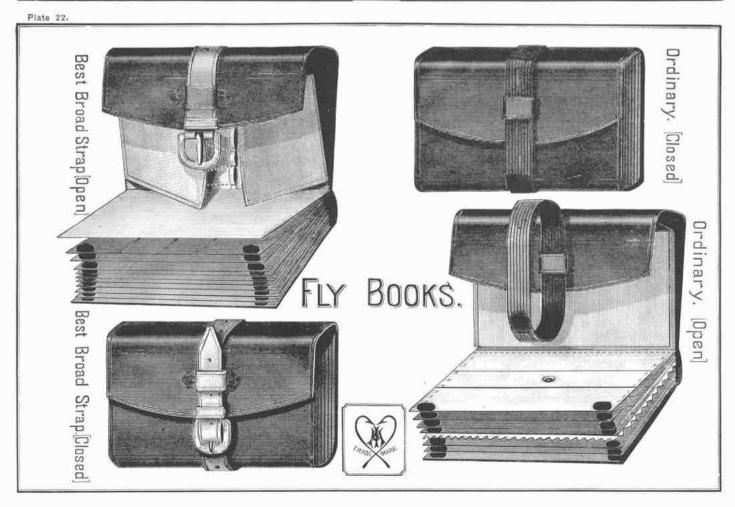
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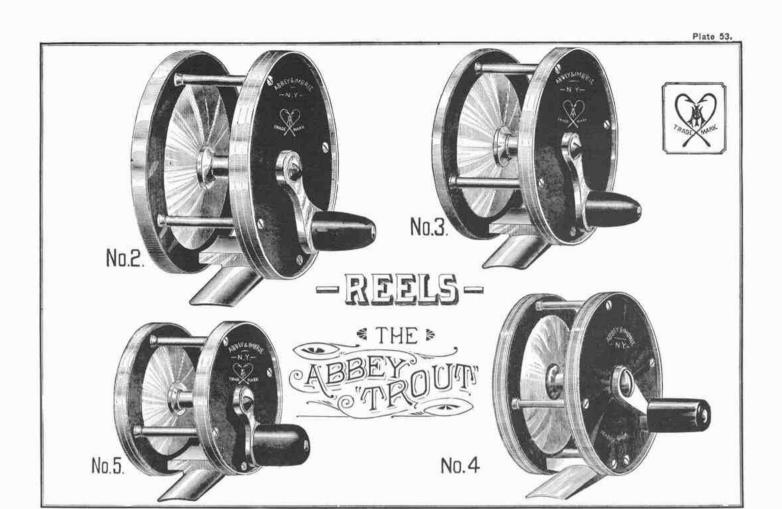


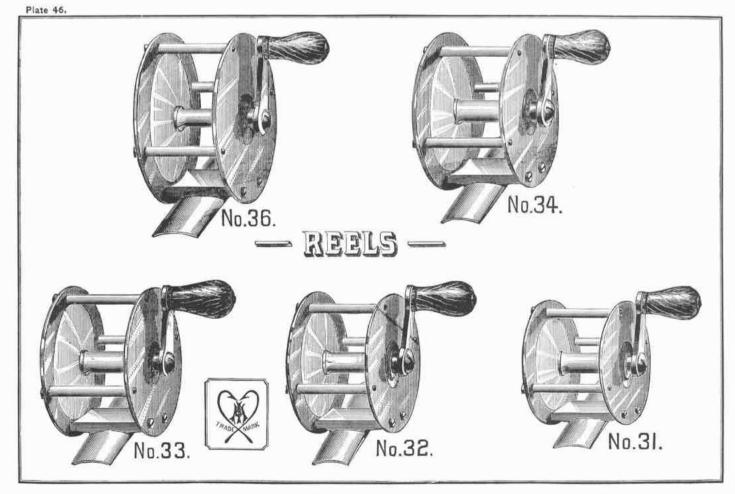


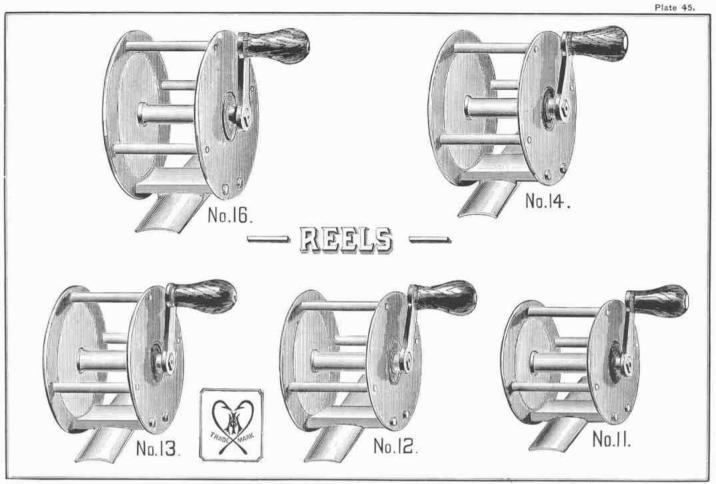


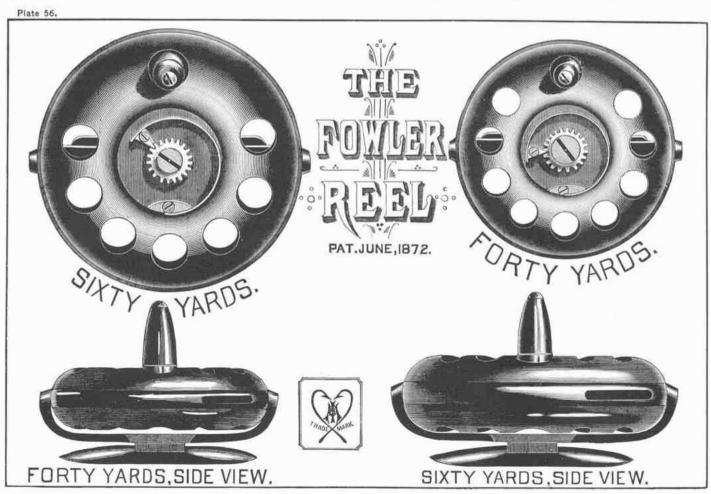






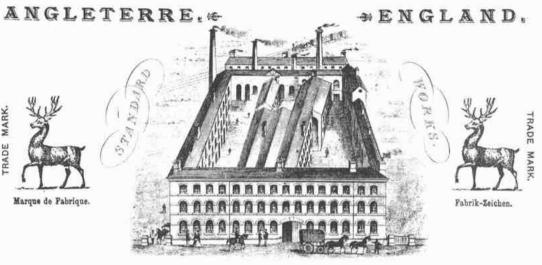






# S. ALLCOCK & CO.,

STARDARD WORKS, REDDITCH,



MANUFACTURERS OF + MANUFACTURERS

NEEDLES,

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AND

SILKWORM GUT,

OF EVERY DESCRIPTION (WHOLESALE AND EXPORT ONLY).



₩1887.

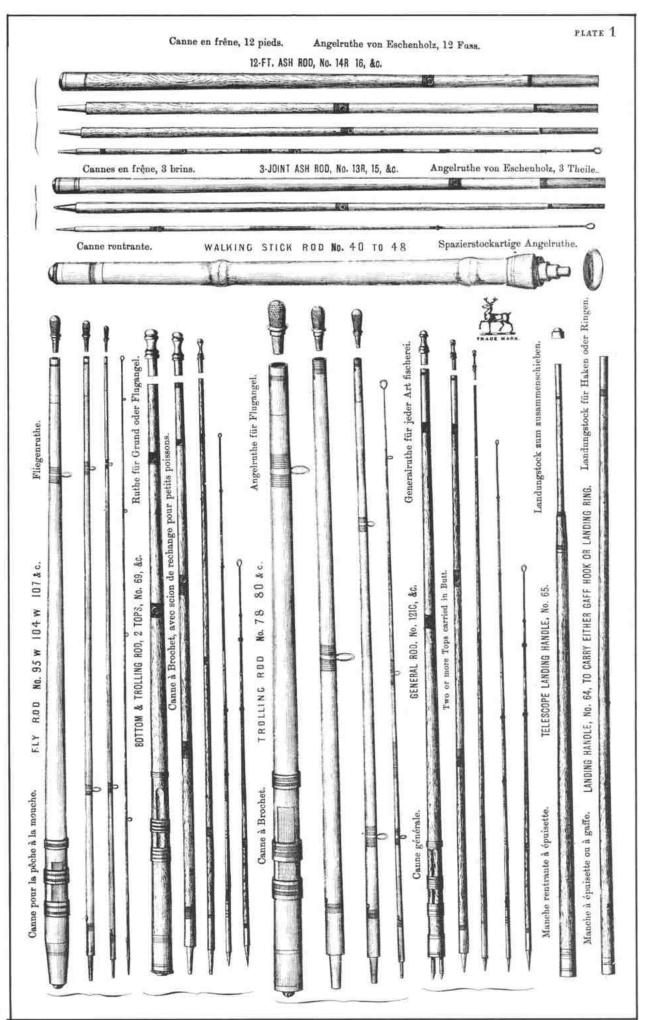
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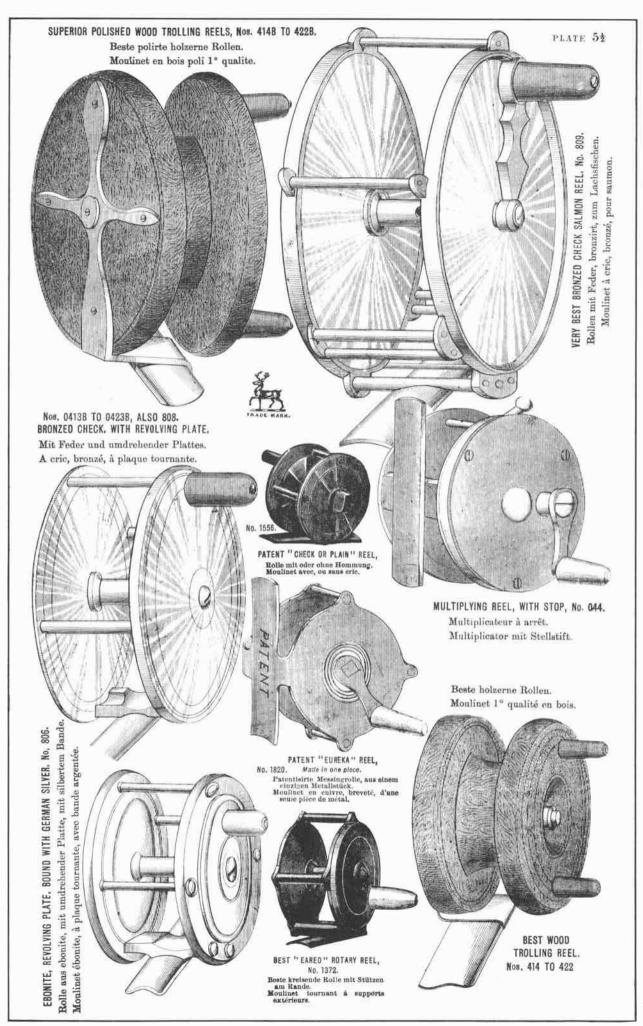
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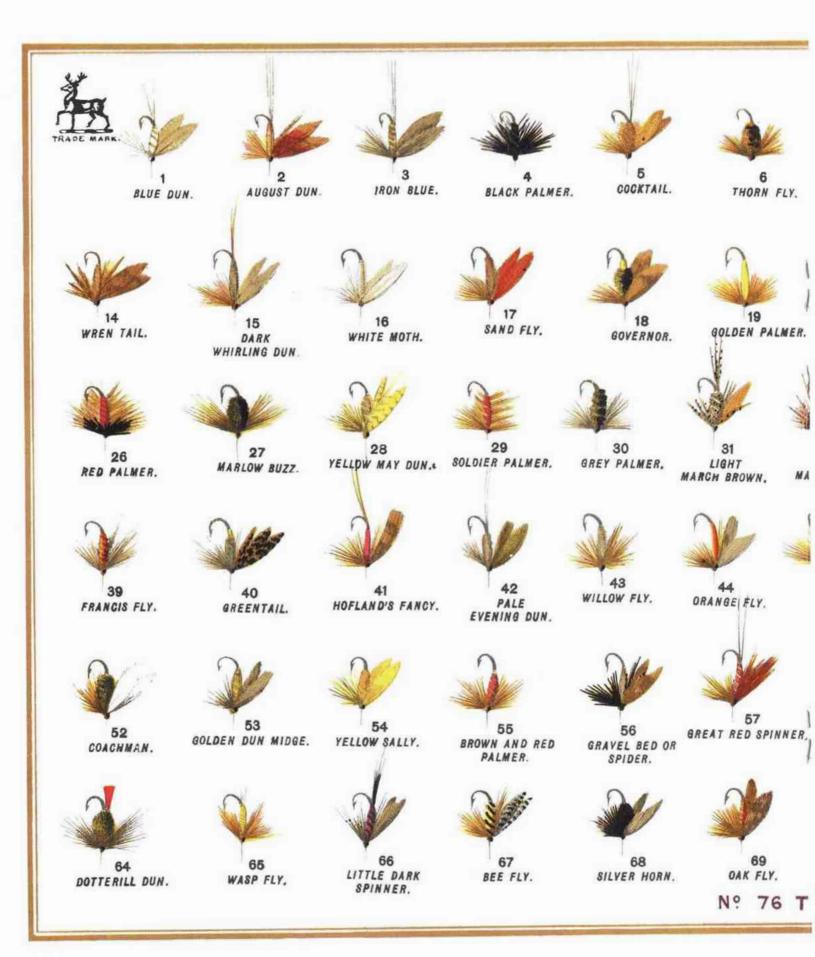


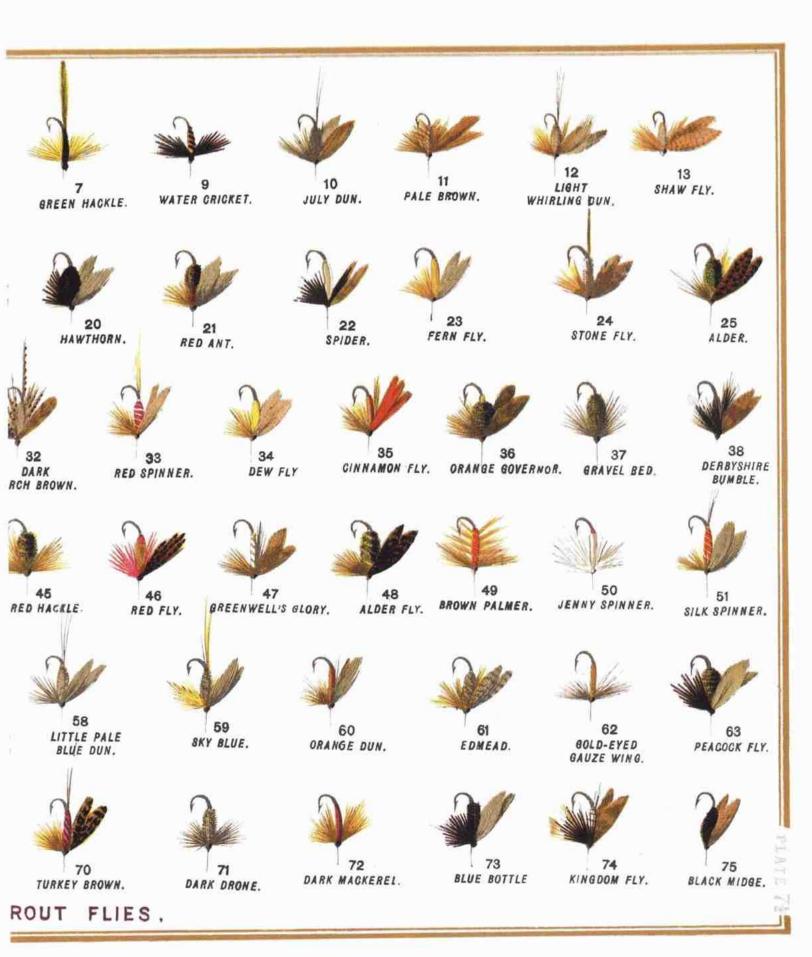
Reprinted from the S. Allcock & Co. Catalog Redditch, Angleterre, Englzn

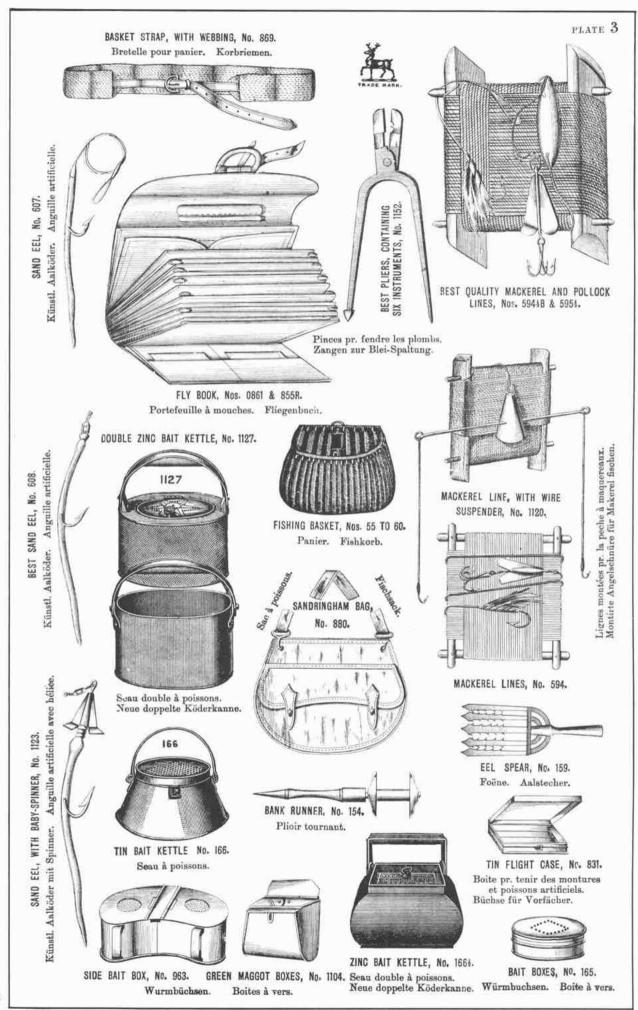


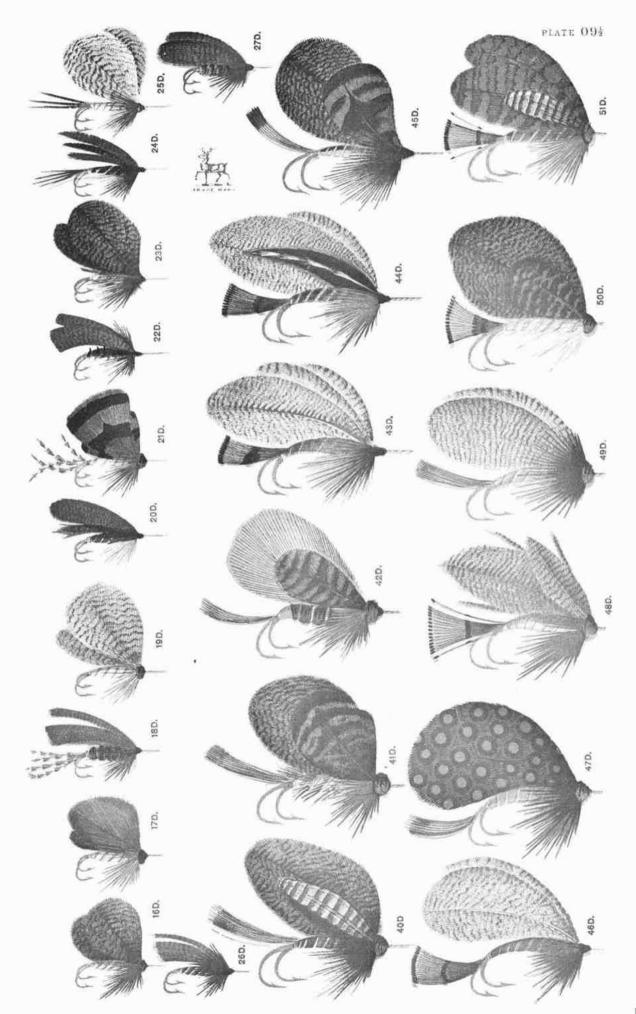
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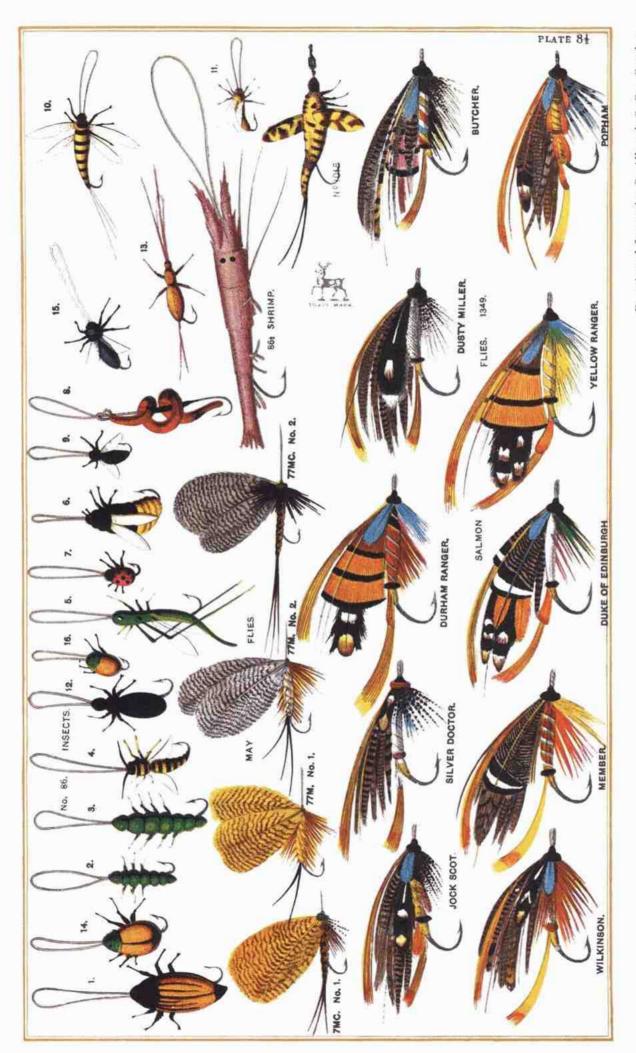




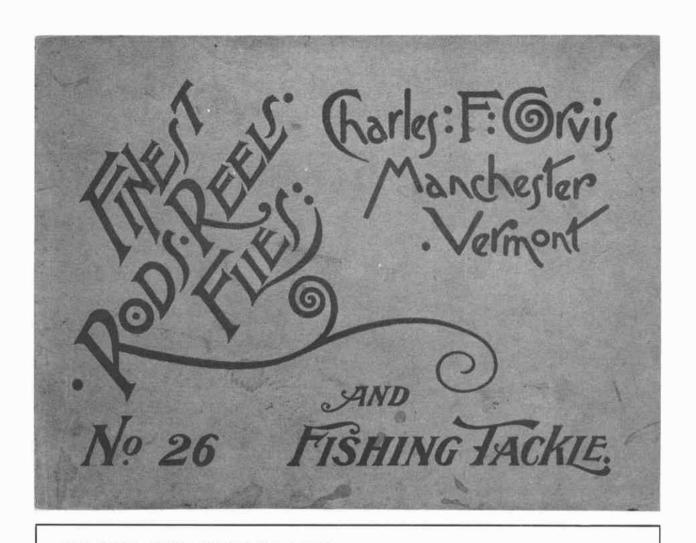








Reprinted from the S. Allcock & Co. Catalog, Redditch, Angleterre, England - 1887.



# Orvis Hand-Made Lancewood Fly Rods



No. 8.—ALL LANCEWOOD FLY ROD. Length, 10 feet, weight, 8 ounces. German Silver Montings, with Orvis Patent Reel Seat. Butt, second joint and tips all Lancewood. Two fly tips and one bait tip; is whipped throughout with silk, like Split Bamboo Rods. Has a sack and round wood case. This is a very fine Fly Rod, and with short tip makes a fine Bait Rod for trout, etc., or a first-rate Black Bass Rod. It is finely finished and in every way first class.

Postage and Insurance on Nos. 8, 10 and 11, 45 cents each.

No. 17.—ALL LANCEWOOD FLY ROD. Length, 9 feet, weight, 6 ounces. German Silver Mountings. Orvis Patent Reel Seat. Two tips, sack and round wood ease, finished in the very best manner.

With Cork Hand Piece ...... \$8 00

Postage and Insurance, 40 cents

RODS, REELS, FLIES AND FISHING TACKLE

21

#### Leather Rod Cases



\$6 50 5-inch

## The Orvis Rod Case

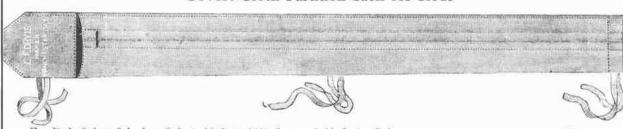


For Rods 8 feet 3 inches, 9, 10, 1016, 11 feet in Length

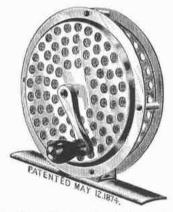
#### Bamboo Tip Cases

Serew Top, Nickel plated Trimmings. Price ...... 50 cents each

## Covert Cloth Partition Sack for Rods



## THE IMPROVED ORVIS REEL



No. 1.—The improvements on the Orvis Reel make it the best click reel in the market for the money. It is now put together with screws instead of rivets—has bushed bearings and screw-off oil cap, reel bar improved in shape, click perfected and placed between plates.

The reel is nickel-plated and finely finished. It is perforated to make it light and keep it free from sand; also that the line may dry without removing it from the reel after use. It is very light, very strong, and holds from 40 to 50 yards of No. 4 waterproof line. It is more compact and less cumbersome than ordinary 25-yard reels.

Regular style, see cut	\$2 50 each
With Safety Band	3 00 each
Aluminum	3 50 each

Postage Prepaid.

RODS, REELS, FLIES AND FISHING TACKLE

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### Kelso Automatic Reel

This new automatic reel cannot get out of order, as it has friction relief action at both ends of spring.

It is automatic in its action, recling in the line upon a slight pressure of the controlling lever, keeping the line taut at all times after fish is hooked.

Capacity, 100 yards H. or No. 6 line. Will take in 150 feet of line without rewinding.

Case of aluminum, satin finished, weighing 71/2 ounces.

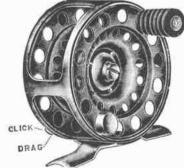
The steel wearing parts of this reel are enclosed in the aluminum case in such a manner that it is impossible for the reel to get out of order, and with ordinary care it should last a lifetime.

No. F. .....\$4 00

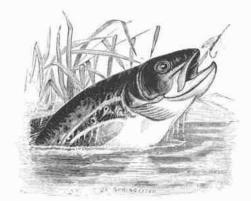
## "Ideal" Perforated Click Reel

The IDEAL Reel is a very nicely made click trout reel and will please any angler. The reel has adjustable click and drag or can be made free running by a simple movement of lever.

Weight, 4 ounces, and holds 35 yards No. F. enameled waterproof line. The open sides permit line drying without removing from reel.



					Made	of	German	Silver.	Price,	postpaid:	
3.7	795	5.0	DO.								



# Midge Flies for Clear Water Fishing

Delicate Hooks. Small sizes.

#### Prices

Flies	1	$\bar{5}0$	dozen
Palmers	1	25	dozen
Hackles	\$1	00	dozen

These Flies are mostly somber-colored patterns and are tied on very light wired hooks, with fine snell.

For much fished streams, low, clear water they are very taking.

Dark Blue Dun.

Emerald Gnat.

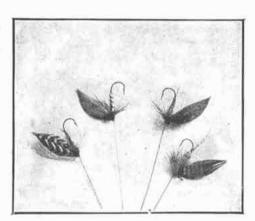
Autumn Dun,
Blue Quill,
Beaverkill,
Black Gnat,
Blue Dun,
Brown Spinner,
Buff Gnat,
Coachman,
Camlet Dun,
Cahill,
Deer Fly,

Equinox Gnat. Fern. Gen. Hooker. Grizzly King. Golden Spinner. Hoskins. Hofland's Faney.

Hare's Ear.

Iron Blue Dun.

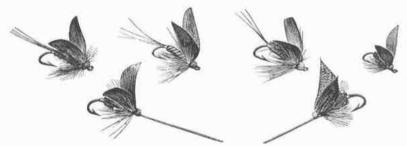
Jenny Spinner.
King of Water,
Pale Ey'n Dun.
Professor.
Red Fox.
Red Spinner.
Soider Gnat.
Whirling Dun.
Yellow May.
Wickham's Fancy



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CHARLES F. ORVIS, MANCHESTER, VERMONT

# Trout Flies for Dry Fly Fishing



The Streams in some parts of this Country becoming depleted and the fish more shy, there is a demand for smaller flies, delicately tied in colors less gaudy than needed for flies used on wild, unfrequented rivers and lakes.

Experienced Anglers have generally advocated using extremely small flies tied on Eyed hooks. The following patterns are the most desirable:

Made on Hall's Eyed Hooks or on Hooks with Snells. Price..... \$1 50 per dozen

Adjutant Blue.
Alder.
Artful Dodger.
Autumn Dun.
Badger Quill.
Black Ant.
Black Gnat.
Blue Dun.
Blue Quill.
Brown Badger.
Cinnamon Quill.
Claret Bumble.
Claret Spinner.
Coachman.

Cork-Serew.
Cow Dung.
Dark Sage.
Drake's Extractor.
Fisherman's Curse.
Flight's Fancy.
Furnace.
Ginger Quill.
Golden Dun.
Gold Ribbed Hare's Ear.
Goose Dun.
Governor.
Grannom.
Grannom Larva.

Green Insect.
Half Stone.
Hammond's Adopted.
Hare' Ear Quill.
Harlequin.
India Rubber Olive.
Indian Yellow.
Iron Blue.
Jenny Spinner.
Large Wickham.
Little Chap.
Little Marryat.
Needle Brown.
Orange Bumble.

Orange Sedge,
Orange Tag.
Pink Wiekham.
Red Ant.
Red Quill.
Red Spinner.
Red Tag.
Rough Olive.
Saltoun.
Sanctuary.
Silver Sedge.
Welchman's Button.
Wiekham.
Yellow Bumble.

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# ENAMELED WATERPROOF SILK LINES

#### Invisible Color, Perfect in Finish, Strength and Wearing Properties

A suitable line for fly fishing should be thoroughly waterproof, and so made as to be perfectly flexible and not flake off; it should be closely braided to give weight, strength and durability. These lines possess all these qualities, and are of the highest grade made.

# Enameled, Waterproof, Braided Silk, Tapered Fly Lines



# Tapered Fly Lines

Length,	25	30	35	40	50	yards
Size G	\$1.50	\$1.80	\$2 10	\$2 40		each
Size, F.	1 63	2 00	2 35	2 70		each
Size E,	1 75	2 10	2 45	2 80		each
Size D,				3 20	\$4 0	0 each

## Tapered Salmon Lines

Size	D,	100	yds.	\$8	00	each	120	yds.	\$9	00	each
Size	С,	100	yds.	9	00	each	120	yds.	10	00	each

Taper	)
Taper	)
Taper 1	)
Tapper (	)

## Level Lines

Leng	th,				-	25	5	0	7	5	100 y	rds.
Size	Η,	or	No.	6,	\$1	25	\$2	50		75		
Size	G,	or	No.	ő,	1	25	2	50	3	75	5	00
Size	F,	or	No.	4,	1	50	3	00	4	50	6	00
Size	E,	or	No.	3,	1	75	3	50	5	25	7	00
Size	D,	or	No.	2,	2	00	4	00	6	00	8	00
Posta	ige	P	repai	d.								

CHARLES F. ORVIS, MANCHESTER, VERMONT

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# Inimitable Gauze Wing Trout Flies Silk Bodies



Abbey.

Grizzly King.

Professor.

Coachman.

Montreal,

Royal Coachman.

Cow Dung.

Parmacheene Belle.

White Miller.

Queen of Waters.

# Inimitable Gauze Wing Trout Flies



Made with Rubber or Cork Extended Bodies. Nos. 8 and 10 hooks.

# Then and Now - My Big Score Reminiscences of a Warren County Sportsman

From the American Angler

One Monday morning in June, 1867, Col. W., his wife, my sister and myself, started from Glen's Falls to drive to Thirteenth Pond in Essex County. The trip was undertaken so far as three of the party were concerned for the drive, scenery and a week of relaxation in the Adirondacks. As for the writer, his object was first and last - trout fishing.

A drive of forty-three miles, passing Lake George, Warrensburgh, The Glen - where the Hudson River was crossed - North Creek and North River brought us in good season to Bennett's on the shore of Thirteenth Pond, said to contain the largest salmon trout of any body of water in the North woods, except one - Blue Mountain lake. "Thirteenth," as it is commonly called, is 1,953 feet above the sea, and either the elevation or our elation, or both, gave us good appetites for Mrs. Bennett's famous griddle cakes and maple syrup. After supper I selected a leader and cast of flies for the next day and put them in water to soak, ready for the early morning fishing.

On Tuesday I was up with the sun, and jointing my eightounce fly-rod that today weighs only a trifle more, and has to answer for the death of many trout and black bass, and is still a good rod after seventeen years' service, I made my way to the shore of the pond, encountering a disabled female partridge on the way; but I had not wish to harm her brood and gave the little mother as wide a berth as possible. I whipped the pond faithfully for two days and managed to keep the party on a short allowance of trout. On Wednesday night Bennett said:

"If you want real good fishing, get Frank Harris and go over

to Hour pond, it is only two miles.

Harris was sent for and came, but dashed my hopes by telling me he could not get away from some work he was doing for a man near at hand, but he was sure I could get a "back load" of trout at Hour pond. He said so much in praise of the fishing that I persuaded him to let the "man near at hand" dispense

with his services for two days and go with me.

Before daylight the next morning, Harris, Platt West, who drives our carriage, and the writer were across "Thirteenth" and on the trail to the fisherman's paradise - Hour pond. Upon reaching the pond Frank could not find his boat, but someone had been before us and left a raft, and from that I fished until I had caught enough for breakfast. I never saw a lot of trout so nearly the same size, and all small. Frank, wondering all the time where the big ones could be, offered no solution to what he seemed to consider a mystery. He had never been there before without catching some large ones. He did not tell me how large, but I imagined from his tone that he must mean five or six pounds each. We fished all day, had enough to eat and a few over, alive in a spring.

As we sat that night smoking our pipes in front of the brush

camp Frank had made during the day, he said:

"If you will start early in the morning and follow a line through the woods and swamp, four miles, to Puffer pond, I will warrant you will get a 'back load' of trout, and good-sized ones, As that was what we started for, I consented.

At dawn the next morning we were crossing the pond on the raft, and on the way over saw a deer, quietly feeding among the lily pads as unconcerned as a deer ever is. Reaching the opposite shore, that "four miles through the swamp" began, and it lives as vividly in my mind to this day as the trout I caught. The "back load" of trout at the other end of the blazed line carried me through, albeit in a used-up condition.

Arriving at Puffer we made a fire and cooked breakfast, consisting of trout we had taken with us. Frank had two boats on Puffer, both leaky, disreputable crafts; but one was near where we ate our breakfast, and that Frank and myself entered and pulled to the inlet, sending Platt around to the foot of the pond for the other boat for his own use. Constant bailing kept our "shadow" afloat. I do not mean that our boat was a shadow, after the model of today, but merely that she was a shadow of her former self.

At the inlet were two stakes driven into the bottom of the pond, to one of which we fastened the boat. You will notice, please, that this was Friday, fish day, and the next morning I was to start homeward from Bennett's. As I was rigging my cast of three flies Frank asked the time, I told him ten o'clock.

'Very well," he said, "you can fish just two hours, be the fishing good, bad or indifferent, as it will take the balance of the day and some of the evening to get back to the Thirteenth via

I made my first cast and raised, I do not know how many fish, but hooked three. The water seemed to boil with fish. I had plenty to attend to on my flies, and I now discovered that my landing net was at Hour pond and that I needed it badly. Frank, however, was equal to the emergency, and tipping the gunwale of the boat down to the water, his hands did the duty of the absent net.

Frank from the start had ridiculed my rod, saying a carriage whip would have been better for me to have brought into the woods, and when the rod was broken he could cut me a pole that I could catch fish with. He had watched the fight with the fish and noticed the willowy, withy action of the rod, and no sooner were the fish in the boat than he exclaimed:

"Let me look at that pole a minute: I want to see what in thunder it is made of to stand that racket, and come back straight after such a strain. I wouldn't have given two cents for it when I first saw it, now I will pay you something besides my time if you will leave it with me.'

It was a "new Orvis" then, I having bought it three years be-fore. Now it is my "old Orvis" to distinguish it from a number of other rods made by the same maker, and he never made me a poor one. The "old Orvis" is just as competent to do the same work today as it did on that memorable Friday; memorable, for its work had just commenced, and before 12 o'clock noon, I was to make the largest single score of my life when fly fishing for trout. Men have affection for and sometimes name their guns. I wonder if anglers generally have the same affection for

their rods? I do. I called this rod "Old Reliable" before Col. Bodine displayed such nerve before the rifle butts. I never broke it, and it never failed me, although I have put it to uses never intended by the maker. In 1874 Seth Green with this rod standing on the Lake house dock at Lake George, cast seventy-eight feet of line, all that was on the reel, with the same ease that I would cast thirty feet.

After landing the three fish I made only one or two more casts before I took off one fly, and soon after I took off another, leaving a fly with dark blue mohair body, wound with gold tinsel, brown mottled hackle, red tail, and wings made from the tail feather of a cock. It never had a name that I am aware of, but from that day to this it has been to me the "Puffer." I found that I could manage one fish better than two or three, as there was danger every time of breaking the leader on the boat side. I was younger then than now, and was after a "back load." With the single fly I took a fish at nearly every cast; sometimes they would miss, but I do not remember that I cast without a rise.

There were flecks and patches of clouds in the sky, with an intermittent breeze, but at times the surface of the water was smooth for a moment, at such times, when favored by the sun I

could see such a sight on the bottom of that pond as I never saw elsewhere, aside from a trout preserve. The trout appeared to cover the bottom of the pond, and were in weight, such as I caught at least, from one-half pound to one and one-quarter pounds.

While I was having this grand sport Platt had come up with the other vessel and moored her to the other stake, and was fishing with a hand line and worm, and to some purpose, as it proved. All too soon Frank said it was time to stop, twelve o'clock had come. I think had it been in the days of stem-winders I should have turned my watch back a quarter of an hour and tried Frank on "sun time."

We pulled ashore, dressed the fish, cooked our dinner and started through the swamp for Hour pond, where we gathered up the few things we had left there, took the trout we had left in the spring, and on to "Thirteenth," reaching Bennett's soon after dark. Brother anglers, read this slowly, understanding it is neither "river" nor guess weight, but scale weight.

The trout I caught that day in Puffer pond in two hours' time weighed, dressed that night at Bennett's, thirty-five pounds caught with an eight-ounce rod, with flies, and landed in the boat without a net. I don't want any "fish hook" and am in my



A. Nelson Cheney, the A. N. C. of this article, frequently fished Lake Champlain and was interested in planting Atlantic salmon in these waters. Ticonderoga Landing was a takeoff point for fishing parties.

right mind. "Facts are facts," and this is one.

During the evening Frank said he would pack the trout to take home. He wiped each fish dry with a piece of old muslin, then put them in the ice-house, not on the ice. The next morning he placed them in a box so that no two fish would touch, putting them in layers with grass he had dried in an oven. This box was then put on the carriage rack with a blanket over it, and after forty-three miles in a June sun the fish were as cool as though just taken from an ice-house. The flesh was firm and the coloring good.

Platt, with his worm fishing within a stone's throw of where I was casting, caught eight trout, each one weighing about one and one-half pounds, and each one showing what was evidently a hook mark in its mouth.

So much for "then" and "my big score." Just here let me say that from the time Frank Harris packed my trout in 1867 to the present day, whenever I have any fish to pack, I have packed them without ice. Get your fish cool by being near the ice, then pack them dry. A case in point:

Last summer I wished to send a fish to my sister; it was a salmon trout caught in Lake George one afternoon, brought to Glen's Falls the next morning, packed dry the afternoon of the same day and expressed to Auburn. It should have been delivered the morning after leaving Glen's Falls, but for some unaccountable reason it was not delivered until the second morn-

ing. My sister wrote that the fish was as cold as though just from the ice house, and the flesh firm as though just caught. It was more than two days and three nights out of water, and more than a day and two nights without being near ice. To be sure, everything it was packed in, cloth, grape leaves and grass, has been placed in the ice-house and remained there for hours before the fish was boxed. Now to go back:

A year ago last summer I was wading and fishing the Hudson for trout with Dick Birch, one of the best of guides, and we went ashore for lunch a few miles above North River. We were talking over the fishing of years past, when I said:

"Dick, how is the fishing now in Puffer pond?" He replied:
"You can walk across the pond on the backs of bullheads
without wetting your feet. I do not think there is a trout in the
pond."

I have since heard the same story from other guides. Dick is reliable, and I think well known to Ned Buntline when he lived at "Eagle's Nest" on Eagle lake. One of the best trout ponds it was ever my good fortune to fish, turned into a bullhead pond! So much for "now." You know the oft repeated adage, "One swallow does not make a summer;" but sooner or later some of our best trout streams, and particularly ponds, if they contain game fish at all, the fish will be black bass.

A. N. C.

Glen's Falls, March 13, 1882



from The Best of H. T. Webster 1953

# American Silkworms

by Charles F. Orvis

Attempts to grow American silkworms for a young and growing textile industry began in 1830. Unfortunately, none of these efforts met with success although various types of worms and natural shrubs and trees provided a food source. Evidently, Charles F. Orvis felt his approach was a little different than his predecessors. His purpose was for the production of leaders and snells. Undoubtedly, we would still be using gut if it had not been for the advances made in the field of chemistry which produced many different kinds of synthetic yarns and threads. Present leaders may be of nylon or other inorganic materials.

Editor Forest and Stream:

For some time there has been an interest felt among fishermen in regard to the possibility of procuring great lengths of silkworm gut from the American silkworms, which are so much larger than the familiar Bombyx mori or Chinese silkworm.

As most of your readers know, the strands used by fishermen for leaders, or casting lines, as our English friends call them, and for the snells to which are attached hooks, is the substance which the silkworm possesses, and which if left to its own devices would spin into a cocoon, enveloping the chrysalis. For ages this cocoon has been appropriated by man — unreeled and woven into various silk threads and textures. Anglers and physicians have made another use of the unwoven silk. Just before the worm is ready to spin, the silk is in a soft, gelatine-like mass. By properly preparing the worm, cutting off its head, the silk sacs can be removed, and, taken between the thumb and forefinger of each hand, drawn to a considerable length. This must be stretched, dried, cleansed and polished, and it is ready for use, giving you a transparent strand of great strength and lightness, most valuable to anglers, and to surgeons also for surgical purposes.

Communications from Dr. Garlick, Dr. Sterling and others added to my interest in this subject, aside from difficulty experienced in trying to obtain good quality of gut from Spain, and I determined to endeavor to raise the American silkworms and inform myself if they could be reared in any numbers and give us a desirable product. I regret that I cannot say that my experiments, on the whole, gave a satisfactory result; but I give my experience, or method of rearing the worms, hoping it may interest or be of profit to some one and perhaps lead to better success. I will first say in brief that I found it perfectly possible to raise the worms in great numbers; it requires no expensive apparatus; they grow, thrive and attain a great size. If one desires to obtain the cocoons I should imagine no obstacle. I would suggest that experiments be made with the cocoons by those interested in silk culture, and if they unreel readily and produce desirable silk for weaving, the worms can be raised, I believe, successfully.

Upon investigation I decided to try and obtain only two kinds of moths, the *Platysamia cecropia* and the *Telea pole-phemus*. I was told that it would be difficult to raise the larvae of the former, but that I would have no trouble with the latter. Contrary to this Dr. Garlick has written: "The *cecropia* can be raised as easy as young chickens." I found it only required care and patience to raise either.

In an article written by M. Trovelot in 1867, he pathetically says: "At first the undertaking seemed very simple; but who will ever know the difficulties, the hardships and discouragements which I encountered. This worm (the Telea polephemus) having never been cultivated, of course, its habits were entirely unknown, though all my success in my undertaking depended very much upon that knowledge." It was five years before M. Trovelot succeeded in raising any number; but at the end of that time he had "not less than a million, which could be seen feed-

ing in the open air upon bushes covered with net — five acres of woodland were swarming with caterpillar life." We were more fortunate and succeeded in procuring all we desired the first year. We were surprised, however, to find upon trying to obtain information in regard to the American silkworms how little has been written upon the subject. We found that nearly all the printed matter dated back to M. Trovelot's statements in the articles before mentioned, published in the American Naturalist, March, April and May, of 1867.

By persevering we overcame the chief and first difficulty, which was to obtain the cocoons from which to hatch the moths to produce the worms. From different naturalists and collectors we obtained eighty cocoons of the cecropia and twenty-five of the polephemus moth; the latter we paid twentyfive cents each for and had much trouble in procuring, in consequence it is said of their being extremely difficult to find. This cocoon is attached to a tree by a slender thread of the spun silk, usually spun round the stem of a leaf, the first strong wind is apt to detach it from the tree, when it falls to the ground, and among the usual deposit of dry leaves it is not usually discovered. The cocoon is about two inches long and one inch in diameter, is cylindrical in shape, with both ends round and closed, the color is a very light gray, similar to that of a wasp's nest; the cocoon is shaped and appears much like that of the well-known Bombyx mori, differing chiefly in size and color, the fibres of this cocoon seem specially tough and strong.

The cocoon of the *cecropia* is considerably larger, being from three to four inches long, an inch and a half in diameter and pointed at each end. It is apt to be somewhat angular, but is not uniformly so, the texture is loose and spongy, the fibres when held in the sunlight are exceedingly glossy and appear of considerable length, but being open at one end I am not sure that it would unreel as well as the cocoon of the *polephemus* and so be useful to silk growers, but for our purpose this could make no difference.

We kept the cocoons in a cool place, an upper room of the house away from the fire, and moistened them occasionally — our idea being to follow the course of nature as nearly as possible, and not wishing them to hatch too soon and so bring forward the worms before the leaves were out on the trees.

April 21 we received from Providence forty-one cecropia cocoons, packed in a box with some bird skins, which were strongly scented with carbolic acid. Fearing this might affect the life in the cocoons, we spread them in a box and placed them on a south porch in the sun and air. About 6 P.M. a fine moth came forth, a few minutes later another and soon after the third; all male moths. It may be well to explain here that the noticeable difference between the male and female moths consists in the breadth of the antennae, that of the male moth being wide and feathery compared with that of the female. The spots in the wings of the male are somewhat larger also and more vivid in color, but the body of the male moth is not as large and full as that of the female. We found the importance of having many cocoons, the tendency seemed to be that the males should hatch out first, as each came forth from the cocoon we placed it in a cage about 3 ft. square, made by nailing strips of lath together and covering this frame with a lace or mosquito netting.

When the moth first emerges from the cocoon it seeks to crawl upward until it can rest with its body nearly horizontal and its wings perpendicular. At first the wings will be less than the length of the body, giving it the appearance of a deformed insect, but they develop rapidly, and if undisturbed within an hour will attain their full size, the insect meantime remaining motionless except for the gradual expansion of the wings. It has been said that the moths hatch only between the hours of 2 and 5 P.M., but although this is usually the time it is not the positive limit, for we have many times known them to hatch earlier in the day, in fact, almost any time during the daylight.

The *cecropia* while in the cocoon seems only passive and cannot be readily aroused; but the *polephemus* is much more restless and will move perceptibly in response to any slight shake or a change to a warmer temperature.

The cecropia seldom gives warning before emerging, but suddenly creeps forth through the small loose end of the cocoon leaving it apparently in the same condition as before, no change except in the weight of the cocoon. The polephemus appears to have a hard struggle to reach the outside world, beating against its tough little case for days, patiently, persistently crowding until at last it bursts open the end and slowly works its way out, and seeks to crawl upward after the manner of the cecropia.

Both moths are extremely beautiful and of great size compared with the useful Bombyx mori. The usual size of the cecropia and polephemus is 5½ in. across the wings and the body 1½ in. long. The prevailing color of the cecropia moth is a cinnamon brown with brilliant spots. The polephemus is a delicate fawn color with equally handsome markings and shadings. It is not easy to describe these various blendings and changes of color, so I will not attempt it. Those interested will find cuts and descriptions of each in the American Naturalist, published at Salem, Mass., No. 8, March, April and May, 1867; in Our Common Insects, by A. S. Packard, and in Vol. XVIII of Scribner's Monthly.

As before stated, we had great difficulty in obtaining a pair of either moths, owing to their not coming forth from their cocoons at the same time. The moths, as I have said elsewhere, commenced to appear April 21, the males coming forth first, the cocoons were not all "hatched out" until some time in July. The male moth will live for a number of days, possibly two weeks, but if confined flutters all the night against the sides of the cage, and so in time becomes sadly frayed and worn. The female moth lives a few days, then lays her eggs, whether fertile or not, and soon after dies. As you probably know, during its existence the moth takes no sustenance but the air it breathes.

Should you be able to obtain a pair of cecropia moths, there is no trouble in regard to their mating, but in our experience the polephemus will not mate unless out of doors; with either moth there is a necessity for plenty of fresh air and a fair amount of room. It is an advantage for several reasons to place only one pair in a cage. When the cages are placed outside the house the female moths will attract the wild moths. Four polephemus moths were found clinging to the outside of one cage in a night. In a section where the moths are numerous there probably need be no trouble in calling in plenty of moths. So far as we can learn the moths are generally distributed throughout the temperate portion of our country. The cecropia seems more abundant in Ohio, Kentucky, New Jersey and States of about that climate, and revels in swampy growths. A correspondent writes to us that "It flourishes in swamps carrying water from two to three feet deep, and where so dense is the growth that a 'machete' is required to clear a path. Feeding and spinning on the 'button bush' or 'water sycamore,' I have seen, while sitting in my boat, twenty-seven almost within reach. When you consider this was in a patch of bushes covering fifty acres or more, you may know there were many cocoons being spun there at that time. As long as there are marshes in the West covered with the 'button bush' and inhabited by the great caterpillar, it would hardly be worth while to make a plantation for them after the mulberry and modern silkworm mode of culture. This is the way Dr. Garlick and myself looked at the matter; we certainly put a good deal of thought and time in it. The general impression was that they spun twice each season, the last cocoons remaining over winter for the continuation of the crop."

This same correspondent gives his ideas of proceeding to obtain the cocoons and raise the worms in these marshes in a semi-wild state, but they were not practicable for us, although undoubtedly wise suggestions for any one in that section of country. We were high and dry at the foot of a Vermont mountain and only found the cecropia cocoons upon our apple trees, although we heard of them as being on the bushes along the streams in the valley. Lumbermen and river drivers told us that they had frequently seen both cocoons and moths while at their work in early spring. But to continue with our own experiments and what we learned we must leave these statements from others.

The cecropia lays a round, slightly flattened egg of a deep cream color, with a small depression in the middle of coffee color; these eggs will be deposited in rows or clusters usually of seven, but sometimes more, occasionally less; they adhere to whatever they are deposited upon, but not so tightly but that they can easily be removed. One moth will lay about two hundred and fifty eggs.

The polephemus moth lays a tiny kidney-shaped egg, not so often in clusters, but scattered one or two or three in a place. Neither does the polephemus seem quite as productive as the cecropia.

The eggs are expected to hatch in twelve days after being laid but as the moth is usually four, six and even more days laying her eggs, the hatching of the same is in successive stages, therefore requires constant watching after the twelve days to remove the larvae as it hatches out and place it upon food. I say upon food. We found this a necessity, for to simply place the food near the eggs or larvae was not sufficient, for although when first hatched they move rapidly and easily, yet their instinct does not seem to lead them in the direction of the food; this adds greatly to the care, for they must not only be placed upon the leaves but they must be watched until they attain some size to see that they stay there, for if they fall from the food they will not seek it again, unless returned they will shrivel and die.

The larvae of the *cecropia* when first hatched are about 1/8 in. long, are black and fuzzy, covered with short hairs like a caterpillar – these hairs they afterward lose.

They are slow to attack the food, and slow in growth for about two weeks. They can be fed in the house on fresh apple leaves for a time or placed on the trees out of doors. They do not seem to thrive until about two weeks old or until they commence to change color. M. Trovelot and others describe this change or the moulting as of five degrees and clearly defined, and of marked progression. With the most careful observation we did not find this to be so; the change seemed gradual and almost imperceptible; the casting of the skins or moulting was manifested in only a few instances, the only skin or part of a skin which I ever obtained from this process was the head of one insect, and I assure you this was from no lack of watchfulness. The cecropia slowly changes from black to a yellow tint, which brightens in hue until it becomes a deep gold color, the black hairs do not disappear until they begin again to change color, losing the golden shade for a green, this green is most peculiar, being more of a bright robin's egg blue, deepening at the sides. On the head are four tubercles of intense red, the most brilliant you can imagine, with black hairs protruding arranged in the form of a star. The whole coloring of the cecropia is wonderful and beautiful.

We found by continued experiments that they only thrive on apple leaves (we were not able to procure the leaves of the buttonwood) and in the open air. We, therefore, inclosed low branches of the apple trees in a wood frame, and over this frame stretched a netting to prevent the worms from getting out and the birds from getting in. Underneath was stretched a white cloth of cotton to catch any worms which might fall. Should the weather be continually dry, it is beneficial to sprinkle this cloth with water to give the worms some moisture. We also built a shield of boards beside each tree to break the wind from the worms. At one time we had more than a thousand worms feeding and growing finely.

The polephemus were raised entirely within the house. They would eat several varieties of food, but none as heartily as the oak. We made boxes about three feet long, one foot wide and the same in depth. These were filled with wet sand, leaving a little space between it and the top of the box, which we covered with manila paper. Through this paper into the wet sand we thrust the ends of the branches from the oak trees, and then placed the larvae upon the leaves. Arranged in this way, the leaves will remain fresh for one or two days. To prevent the worms from creeping away we placed over the boxes, branches and all the cages which we had used for the moths.

The larvae of the *polephemus* are nearly white when first hatched and of the same size as the *cecropia*. They are more active, eat more readily and grow much more rapidly. When they get to be about an inch long their appetite increases and they feed eagerly and greedily. They do not show the great changes of color which the *cecropia* does, but attain soon a pale sea-green color which they retain throughout the time of their existence.

We found it a great trouble when the worms were small to change them to the fresh leaves, as each worm or cluster had to be moved carefully on to another leaf. When they were nearly grown they would move of their own accord to the fresh food. Aside from this trouble the worms are easy to raise, do not seem delicate, and grow well in the house, always being careful to give them plenty of fresh air and food. I think if for any purpose it should be desirable to raise two broods in a season there would be no difficulty in doing so. Our moths in the cocoons of the polephemus began to hatch in ample time to have raised a second brood of worms and secure the perfected cocoons. I add here a list which has been given me as the result of experiments in feeding both the cecropia and the polephemus. The trees are mentioned in order of their value:

Cecropia. - Apple, maple, wild cherry, alder, poplar, willow, basswood, currant, ash, plum, oak and elm.

Polephemus. — Oak, cherry, maple, elm, basswood, poplar, willow, beech.

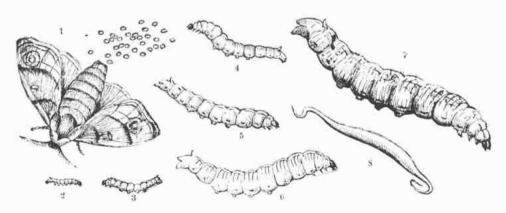
The polephemus matured in less time than the cecropia, but the latter reached a greater size, some of them growing to be 4½ in. long and ¼ in. in diameter, and of varying but remarkable weight.

We drew many strands from both varieties, each worm giving two strands, i.e., one from each sac. Before drawing we put the worms in a dilute solution of acetic acid, or of weak vinegar, which seems to render it more tenacious; after leaving them for a few hours they were taken out and drawn to their greatest length, as related in regard to the Chinese worm. The length was all that could be desired, for we obtained from the cecropia strands over 3 yds. (9 ft.) long, and from the polephemus strands nearly as long; and the color was perfection, i.e., delicately tinted either green or pale brown according to the variety. But alas, our hopes were in vain, for the next day when they had dried we found that they had but little strength compared with the product of the Chinese worm. It could hardly have been in the drawing, for we had previously drawn gut from the Chinese worm, proceeding in the same manner, and it was hard and strong. We drew many strands, but all with no better

Now the questions arise: Will these worms feed on any other untried food, the mulberry or "button wood" especially, and perhaps produce stronger gut? Was there any fault in my experiments which was the cause of the weakness in these strands? If we could overcome this defect there is great profit and gratitude for the man who does. Our supply from Spain of the gut from the Chinese worm is limited and unsatisfactory, and to obtain the casting lines of proper length for the fisherman's use involves careful labor in sorting and knotting together the short lengths. All this labor could be dispensed with if the silk of the American silkworm could be strengthened. Dr. Garlick assures us that the worms he raised gave "strands of unusual strength and great length." I have in my possession a round, perfect strand of gut which is now six feet long and a piece has been broken from it; it is large and strong. It was given to a friend of mine by an old fisherman of New York City, Peter McMartin, who told us at the time that "it was drawn from some big silkworms, by a man in New Jersey." This was years ago, more than twenty, before I had thought of investigating for myself. Mr. McMartin has been dead a number of years; there is no way of learning more of this perfect strand, whose history, could we know it, might help us very much. This may fall under the notice of some one who can give information regarding their own or other people's experience. I shall be glad if they will write to me, for I am anxious that some one shall succeed in this, for the worms seem hardy, prolific, are native to this country, can be cared for by uneducated people, and it seems a pity that they should not be made a source of great revenue and release us from our dependence upon the supply from Spain. I hope some one may yet succeed.

Charles F. Orvis

Manchester, Vt., Nov. 30, 1886



(1) Female Moth and Eggs. (2) Worm 3 days old. (3) Worm 7 days old (4) Worm 14 days old. (5) Worm 21 days old. (6) Worm 30 days old. (7) Worm 42 days old. (8) Gut-sack, there being 2 in each worm.

# Misty Corri

(continued from back cover)

When we met for dinner, "Where is your mother?" said father. We looked at each other horror stricken, realizing that between us we had left her deserted on the banks of a river ten miles distant. We rushed for the car and hadn't gone very far when we met her, white and utterly exhausted. She was terrified of highland cattle and to avoid them had walked half way up a hillside; climbed stone walls, forded burns.

For some reason, we — W.O.L. and myself — were in the clear. It was my father for the first, and probably only time, she reproached. "The sea trout," she said, "you were thinking of it, not of me." The denouement either erased the capture of that Kraken from our memory, or at any rate prevented us asking father how he achieved his victory. It was in this unheard of little highland river that my father got his two biggest trout, a brown one just under eight pounds, and this sea trout we did not dare to weigh.

It was here too I got my biggest and most unsporting basket, which I look back upon with no pride, but as an interesting experience. I was about ten at the time. The brake had left us as usual at Maam, and was coming back early, about five thirty. It was raining — as it generally was at Inneroara; stooks of barley hung sodden heads in the meadow near the farm. The river was rising and running brown. By midday, it was bank high and a raging torrent.

We had five hours to wait and nothing to do; we'd set off in boots and waders, and they are not comfortable things to walk in, otherwise we might have gone up the glen in search of Rob Roy's cave. The Shira a mile or two upstream becomes a series of water falls tumbling between rowan trees. There was seldom a day we did not see red deer on the hillside, and the eagle circling overhead.

I had never known my father at a loss for something to do in the country and beside a river, but on this occasion we really were rather miserable; Burbury's buttoned couldn't keep the rain from trickling down our necks and up our sleeves. Midges were driving us frantic.

In the barn there was a spade. I had been brought up to think of worm fishing with abhorrence, and I regarded my father with shocked amazement when I realized what he was about to do: we got our worms.

The burns, little more than ditches, were bank high too, but they weren't roaring as was the river. Father, with his penknife, scraped wings and hackles from a couple of flies, and on them impaled a wriggling worm and handed the rod to me.

No concealment, no skillful casting, I just had to drop the worm into the water and it was seized by a voracious trout. The next time I had to put on the worm myself. It wouldn't have been so bad if it hadn't been for the midges, they were ferocious; one's hands were slimey and one couldn't even scratch. It wasn't a case of pitting one's wits against cunning trout with the odds in their favour; it was sheer massacre. I didn't get any thrill, neither had I much pity for the trout — they were full to the gills with baby rabbits. The burrows had been washed away, and the trout, drunk with spate water, were ready to devour anything.

My father watched — I don't know if it was a lesson in how not to fish or if he was simply interested in the behaviour of trout in these conditions. I've certainly never had the urge to try it again. I did learn something, however (apart from the fact that trout eat rabbits) that came in useful years later. My husband was fishing the Eamont; the river was in spate and unfishable. The Colby Beck flowed into it and it had never occurred to him before to fish it. It was high, but was not running like a mill race. Here he got a really good basket on fly. No experience is wasted.

We visited Inneroara some years ago; the village was packed with cars, the once magnificent avenue a desolation of tree stumps, the Castle open to the public, the once rough road leading up the glen tar-macadammed by the Scottish Hydro Electric Corporation.

On the shores of Loch Finne we found a secluded bay. About to bathe, we discovered it black with basking sharks. In the distance we saw a whale rolling to the head of the loch, spouting as it went.

Inneroara, Inneroara, what would Neil Munro think of you today? Your braes, your corries, your singing waters, they are there for those who seek.

Are there still men, sober and strong, who would not risk walking the hills above Stron Point after dusk? Little People! have the activities of the Highland Water Board driven you away? Will you return, as we hope may the trout and salmon in time?

The serious angler would be advised to lease a stretch on some well-known river. On the other hand, "he may rove for a thousand miles on league-long brogues," I quote again, perhaps misquote, from Neil Munro, "and find no equal to Glen Shira. It is not the splendour of it nor the riches of its folk; it is not any great routh of field or sheep-fank, but the scented winds of it and the comfort of the pine trees round and about it on every hand.

Glenshira, my heart, I am sailing, sailing, Far to the south of the slope of the sea; Glenshira, mo chridhe, it is cold on the far land, Bitter the stranger with wands on his doorway Glenshira †mo chridhe!"

† Mo chridhe = my heart.



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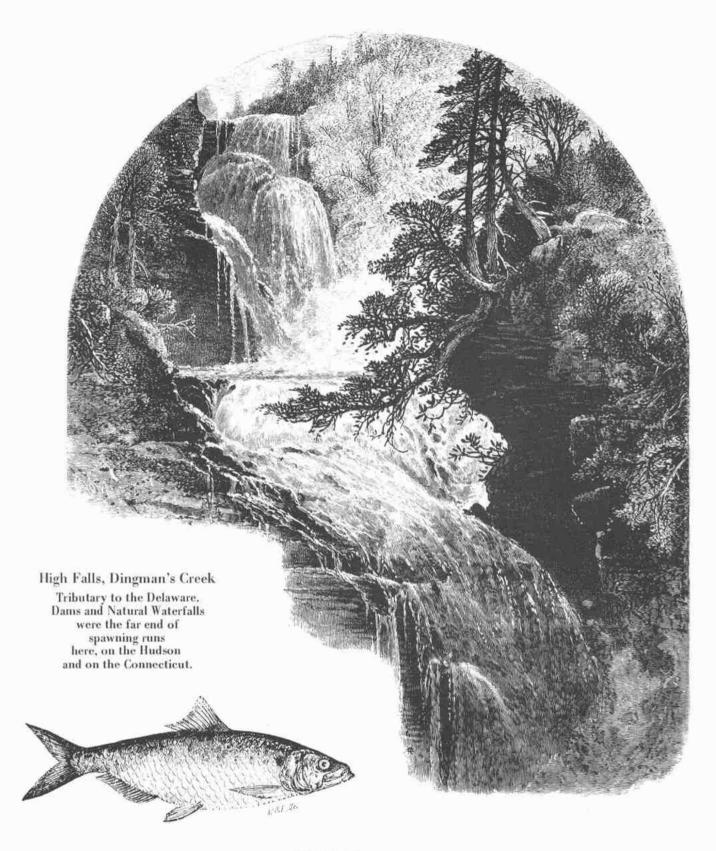
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# THE SHAD

It is, as I have observed, indisputably true, that on his entrance into fresh-water from the salt, for the purpose of spawning, the Shad will readily take a gaudy fly, the more readily the higher he runs up into the cold and highly aerated waters in the upper parts of our large rivers, where also they are taken in the greatest perfection, as for instance in the Delaware, so far up as Milford, in Pike County, Pennsylvania.

# Misty Corri

## by Sheona Lodge

"Shira Glen, Shira Glen! if I was a bard I'd have songs to sing to it—those woods of Drimlee and the wild pass the red Macgregors sometimes took for a back road to our cattle folds, in cloud of night and darkness! Far have I wandered, warring other folk's wars for the humour of it and small wages, but here's the one place I've seen yet that was worth hacking good steel for in earnest," said Neil Munro's hero, Colin of Elrigmore—my excuse for writing of the river Shira.

Neil Munro's book was given to my parents in 1899 "in memory of a poliday."

Inneroara was never renowned as an angler's paradise; perhaps that was part of its charm. The first time my parents took me with them was in 1908.

Today it is a stopping place for a night or two, or merely for luncheon, and a guided tour round the castle. In the first quarter of the century the roads were considered too steep and too dangerous for motor cars — we travelled by paddle steamer.

Literary folk, artists, and yachtsmen visited Inneroara; the few fishermen preferred Loch Dubh to the river. Every morning we bundled into a brake. I was permitted to take my place on the box beside Bain — who taught me gaelic. Once we had shed the loch-anglers I was allowed to take over the reins as we drove to Maam Bridge.

The Shira was not an easy river to fish; the banks were steep and overgrown by alder and ash, but it held big trout, six and eight pounders. The joy was that we had it all to ourselves — not because we were privileged, but because no one else appeared to be interested. I remember one year seeing a man approaching and feeling positive indignation that "our" river should be invaded by a stranger; however, my fury changed to a somewhat different emotion when it proved to be W.O.L. (now my husband) who had travelled for twenty four hours, calling on his tailor en route to pick up a suit of 'plus fours' in order to dazzle my eyes — as indeed it did.

I was only eight years old when I hooked my first sea trout, and couldn't believe it. "Father," I called, "come, the river is running away with my line."

The really big sea trout lay in a quite inaccessible pool above Maam Bridge in deep water overgrown by alder. There was no possible way of getting a fly over them. If at dusk we lopped off a branch or two, the next morning they'd be gone; they were more wary and aware than any trout or salmon.

My father stalked them for years, and at last he was successful but how we shall never know, because his triumph ended in the nearest approach to a 'row' he and my mother ever had in their utterly happy years together.

It happened on our last visit to Inneroara together, father, mother, my husband and myself. About six thirty, after a not very successful day — the Shira was a short spate river and for once we'd had no rain — we decided to go home. My mother said she would wait for father. She was reading in the shelter of a barn when she saw him get into the car and drive away.

(continued on page 32)

